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Sustainable Employability and Job Crafting

Three essays on strategies adopted by workers to develop their employability, career success, and well-being

THESE
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I, undersigned Sara Dotto, hereby declare that the work presented in this manuscript is my own work, carried out under the scientific direction of Prof. Florent NOEL (thesis director), following the principles of honesty, integrity, and responsibility inherent to the research mission. The research work and the writing of this manuscript have been carried out in compliance with both the French national charter for Research Integrity and the University Paris 1, Pantheon Sorbonne, France charter on the fight against plagiarism.

This work has not been submitted previously either in this country or in another country in the same or a similar version to any other examination body.

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Abstract

This thesis deals with the development of sustainable employability through job crafting. Starting from an analysis of the conceptualization of employability, the theoretical framework of sustainable employability, based on the capability approach, is adopted. Sustainable employability includes not only the possibility for individuals to find a job and income through their working life, but the ability to achieve valuable contributions, well-being, satisfaction, performance, in a collaborative situation between individuals and organization. We argue that sustainable employability can be developed through job crafting, a set of proactive behaviors individuals initiate to adapt their job to themselves. Thanks to job crafting, individuals can tailor their job to themselves.

We explore this topic with three studies: first, a quantitative study aiming to understand which combination of competences makes individuals employable. Second, a qualitative study seeking to understand how workers in a permissive organization craft their jobs and careers in the short and in the long term to achieve sustainable employability. Third, a qualitative study on how low-skilled workers use job crafting to increase the sense of belonging and well-being. Through our studies we contribute to the literature on sustainable employability and job crafting, showing how job crafting has the potential to contribute to the realization of sustainable employability.

Résumé

Cette thèse porte sur le développement de l'employabilité durable à travers le *job crafting*. À partir d'une analyse de la conceptualisation d'employabilité, le cadre théorique de l'employabilité durable, basé sur l'approche par les capabilités, est adopté. L'employabilité durable inclut non seulement la possibilité pour les individus de trouver un emploi et un revenu tout au long de leur vie professionnelle, mais aussi la capacité d'obtenir des contributions de valeur, du bien-être, de la satisfaction et des performances, dans une situation de collaboration entre les individus et l'organisation. Nous soutenons l'idée que l'employabilité durable peut être développée grâce au *job crafting*, des comportements proactifs que les individus adoptent pour adapter leur travail à eux-mêmes. Grâce au *job crafting*, les individus peuvent adapter leur travail à eux-mêmes, améliorer leur satisfaction et engagement.

Nous explorons ce sujet à travers trois études : premièrement, une étude quantitative visant à comprendre quelle combinaison de compétences rend les individus employables. Deuxièmement, une étude qualitative cherchant à comprendre comment les travailleurs d'une organisation permissive construisent leur emploi et leur carrière à court et à long terme pour atteindre une employabilité durable. Troisièmement, une étude qualitative sur la manière dont les travailleurs peu qualifiés utilisent le *job crafting* pour accroître le sentiment d'appartenance et de bien-être.

Grâce à nos études, nous contribuons à la littérature sur l'employabilité durable et la création d'emplois, montrant comment la création d'emplois a le potentiel de contribuer à la réalisation de l'employabilité durable.

Résumé en français

Introduction

Cette thèse aborde des questions vastes et variées sur la manière de construire l'employabilité durable dans un monde du travail en évolution.

Les thèmes sont issus de l'évolution des réflexions sur le thème de l'employabilité, développées tout au long du XXe siècle et encore florissantes de nos jours. La thèse traite de plusieurs conceptualisations de l'employabilité à travers le temps, montrant comment il s'agit toujours d'un concept important à discuter et comment il est nécessaire de discuter sur les modalités de son développement. De plus, nous articulons la thèse sur la problématique du développement d'une employabilité durable dans une perspective fédératrice pour les employeurs, les salariés et la société dans son ensemble. Nous explorons cette vaste question dans trois articles différents, chacun traitant d'un sous-thème de la question de recherche principale.

Nous allons commencer par examiner le contexte et montrer comment le monde du travail évolue, en soulignant que l'employabilité reste toujours un enjeu. Par ailleurs, dans la situation actuelle, il est important de déplacer le point de vue sur l'employabilité pour trouver une approche plus globale entre les individus, les organisations et la société.

Un certain nombre de macro tendances, notamment les progrès technologiques, les migrations, les changements démographiques, la crise économique, la dernière pandémie de COVID, la crise climatique et les tensions politiques, en particulier en Ukraine, ont un impact sur le monde du travail.

En effet, comme le souligne l'Organisation internationale du travail, le contexte économique est actuellement assez difficile au niveau mondial (OIT, 2023), avec un faible niveau de croissance mais avec une inflation élevée, ce qui entraîne une baisse du pouvoir d'achat pour les citoyens. Outre la faible croissance économique et l'inflation, un autre facteur provoquant de nouvelles difficultés dans les économies provient des chocs dans la chaîne d'approvisionnement dus aux tensions en Ukraine et à la hausse des coûts de l'énergie pour l'Europe occidentale (OIT, 2023). Ces facteurs aggravent la situation des gouvernements : les économies mondiales se remettent encore de la pandémie mondiale de COVID-19 et sont confrontées à des niveaux d'inflation élevés.

La situation économique difficile est encore pire pour les travailleurs peu qualifiés et les personnes à faible revenu. En fait, partout dans le monde, il existe d'importants déficits de travail décent qui affaiblissent (ou modifient) la justice sociale en termes de manque d'accès à l'emploi rémunéré, à la protection sociale et au respect des droits fondamentaux au travail. Ces problèmes concernent principalement les femmes et les jeunes travailleurs, qui sont souvent moins bien payés ou subissent les conséquences des inégalités entre les sexes, souffrant ainsi d'une répartition inégale des revenus et d'injustices.

D'autres tendances bouleversent également le monde du travail. Par exemple, les changements démographiques représentent un défi auquel de nombreux pays occidentaux devront ou sont déjà confrontés (Balliester et Elsheikhi, 2018). En fait, le vieillissement de la population

constitue un problème puisqu'il peut entraîner une pénurie de main-d'œuvre, qui ne sera probablement pas compensée par l'immigration en provenance de pays démographiquement plus actifs. Aussi, la pandémie du COVID-19 a bouleversé le monde du travail : l'accès au travail en distanciel est devenu essentiel et il s'est inséré dans la normale manière d'organiser le travail. Encore, l'intérêt pour les questions de durabilité et l'impératif de respecter les objectifs de l'ONU en termes de développement durable, a le potentiel de générer des nouveaux types d'emploi et des différents objectifs : on s'intéresse à la triple bottom line et non seulement aux revenus économiques.

Revue de la littérature

Les tendances évoquées influencent et remodèlent le monde du travail, affectant aussi la vie des gens. En effet, jusque dans les années 2000, le parcours professionnel traditionnel consistait à trouver un emploi après l'école ou l'université et soit à rester au même niveau, soit à être promu vers une carrière plus intéressante au sein de la même entreprise (Hall, 1996 ; Rousseau, 2005). Ce modèle a cependant été perturbé par divers facteurs.

Par exemple, la mondialisation a fait baisser le coût de la main d'œuvre, qui a été délocalisée vers des endroits moins chers. En outre, cela a donné accès à une main-d'œuvre mondiale aux entreprises qui ont commencé à se développer à l'échelle mondiale. Même si les avantages économiques ont été remarquables, divers défis en termes de gestion d'une entreprise d'envergure mondiale et d'une main-d'œuvre dispersée et multiculturelle sont sérieux et importants. La pandémie de Covid-19 a posé de nouveaux défis en ce qui concerne l'adoption du travail à distance et la création d'un équilibre entre le travail à distance et en présence.

L'adoption massive de la technologie et le rythme rapide de l'évolution technologique obligent les travailleurs à se mettre à jour et à s'adapter à ces changements. Cela implique un effort important de la part des salariés, qui doivent adopter une approche d'apprentissage tout au long de la vie.

En effet, le contrat psychologique entre employeurs et salariés a changé. Traditionnellement, un employeur garantissait à ses salariés un emploi à vie, leur offrant la possibilité de développer toute leur carrière dans l'entreprise, en échange de leur fidélité et de leur engagement. Ainsi, une fois trouvé un emploi, le cheminement de carrière serait tout à fait prévisible. Le contrat psychologique traditionnel a cependant été remplacé par un nouveau paradigme, un « nouveau contrat psychologique » (Rousseau, 2004) : les employeurs ne peuvent plus offrir un emploi à vie, car les entreprises peuvent subir des transformations radicales ou des processus de restructuration sur des périodes plus courtes, qui ne permettent plus aux salariés de compter sur un seul travail. En effet, dans le cas où leurs compétences deviennent obsolètes, si leur emploi change et s'ils ne peuvent pas suivre le rythme, ou si leur entreprise subit une série de restructurations, les salariés pourraient ne pas pouvoir conserver le même emploi et devront quitter leur emploi, volontairement ou non. Les salariés devront donc s'assurer qu'ils sont dans les conditions nécessaires pour trouver un autre emploi tout au long de leur vie professionnelle : ils doivent entretenir leur propre employabilité et ils se sentent responsables de cela.

Les carrières, qui constituaient une certitude d'orientation et de stabilité pour la grande majorité de la population occidentale, ont changé. Elles sont devenues plus instables, incertaines et imprévisibles. Certains auteurs parlent de carrières sans frontières (Mirvis et Hall, 1994 ; De Filippi et Arthur, 1994), pour souligner le fait que les travailleurs, tout au long de leur carrière, vont dépasser les frontières de l'organisation unique, pour travailler dans diverses entreprises. Hall (1996) parle de « carrières protéiformes » pour souligner la dimension de découverte de différents métiers dans diverses organisations. Les carrières protéiformes offrent la possibilité d'apprendre dans diverses organisations, d'avoir la chance de cumuler différentes expériences et de pouvoir choisir le prochain emploi. Mais en même temps, ce type de carrière impose un lourd fardeau au travailleur : le stress constant d'être au meilleur de ses capacités pour trouver un meilleur emploi, la responsabilité d'être des créateurs de leur carrière. Développer son employabilité est donc devenu un impératif pour les travailleurs.

L'employabilité

L'employabilité est un concept largement étudié dans la littérature en gestion tout au long des années 1900. Dans sa définition la plus simple, elle est considérée comme « la probabilité qu'un individu trouve un emploi sur le marché du travail interne et/ou externe » (Forrier et Sels, 2003, p. 106). Cette définition souligne la nécessité d'être adaptable et flexible, capables et désireux de mettre à jour leurs compétences pour rester attractifs sur le marché du travail.
D'autres définitions considèrent les transformations de l'environnement externe et l'importance accrue d'avoir un but au travail : Fugate et ses collègues (2004) soulignent la nécessité d'ajuster les compétences des employés aux demandes des employeurs, considérant que les besoins de l'employeur actuel peuvent évoluer.

Les tendances récentes en matière d'employabilité reflètent l'importance de la responsabilité individuelle dans son développement : les travailleurs doivent être capables de détecter les meilleures opportunités de carrière et de prendre des décisions cohérentes, en s'appuyant sur leurs compétences. Ainsi, l'accent mis sur l'action individuelle dans la gestion de l'employabilité de chacun diminue l'importance du rôle de l'organisation dans la gestion de carrière des employés. Les individus, face à l'imprévisibilité et à l'instabilité des carrières, devraient être capables d'améliorer leurs capacités, en adoptant une approche d'apprentissage tout au long de la vie, en détectant quelles sont les compétences les plus importantes à développer (Van Der Hejide et Van Der Hejiden, 2006 ; Fugate et al. 2004). ; De Grip et al., 2004 ; Forrier et al., 2015 ; Clarke, 2008).

Cependant, plusieurs chercheurs ont souligné qu'une insistance excessive sur la perspective de agentique serait réductrice et injuste, soulignant le fait que les employeurs ont leur part de responsabilité lorsqu'il s'agit de contribuer à favoriser l'employabilité des travailleurs. Selon Fugate et al. (2021), l'employabilité est affectée par des variables environnementales et individuelles. Thjissen et ses collègues (2008) soulignent que l'employabilité cible des acteurs

variés : c'est un indicateur de plein emploi, bénéfique pour la société et les pouvoirs publics, elle représente un équilibre entre demande et offre de travail, un aspect crucial pour les entreprises, et il s'agit de la probabilité d'obtenir un emploi pour les employés. De Grip et ses collègues (2004) soulignent comment l'employabilité se situe à la jonction des caractéristiques humaines, de la croissance des besoins internes ou externes du marché du travail et des pratiques de gestion et des politiques gouvernementales.

En effet, selon Fugate et ses collègues (2021), il est important de se concentrer sur la relation entre employeurs et employés : « les employeurs et les employés ont besoin les uns des autres pour être compétitifs, survivre et prospérer, ce qui signifie que tous deux devront être de plus en plus proactifs et stratégiques. et collaboratifs pour relever leurs défis respectifs et collectifs » (Fugate et al., 2021, p. 5). L'employabilité représente donc la nouvelle sécurité pour les travailleurs, dans un contexte de carrières instables et incertaines. Ainsi, soutiennent Fugate et ses collègues (2021), il est essentiel d'aborder à la fois le point de vue des employés et celui des employeurs, afin de reconnaître les caractéristiques uniques de leurs interactions. En effet, les auteurs ont affirmé la nécessité d'une approche intégrative dans la discussion sur l'employabilité, car se concentrer sur un seul aspect serait réductrice (Van Harten et al., 2021 ; Fugate et al., 2021 ; Williams et al., 2016).

Le cadre théorique de l'employabilité durable

Les débats sur la conceptualisation de l'employabilité, ainsi que les différends sur son développement sont loin d'être résolus. Dans ce contexte, le cadre de l'employabilité durable offre des perspectives encourageantes (Van Der Klink et al., 2016; Fleuren, 2016; Fleuren et al., 2020) Dans cette thèse, c'est ce cadre que nous considérerons comme référence : nous nous concentrerons sur ses composantes et les possibilités de son développement.

Le cadre théorique trouve ses racines dans l'approche par les capabilités d'Amartya Sen et part du refus de l'idée selon laquelle les individus sont entièrement responsables du développement de leur employabilité (Van Der Klink et al., 2016).

L'employabilité durable ajoute une autre dimension à l'employabilité. En effet, l'accent n'est pas seulement sur la possibilité d'avoir un emploi, mais également sur sa durabilité, dépassant ainsi la conceptualisation du travail comme simple moyen de gagner sa vie. Le travail est plutôt considéré comme englobant une multiplicité d'objectifs personnels et sociétaux, tous importants pour l'individu. L'accent mis sur la durabilité indique l'importance de durer dans le temps et de faire face aux changements, tout en s'améliorant et en trouvant de la satisfaction dans son travail (Hazelzet et al., 2019).

Le concept d'employabilité durable est multidimensionnel : à partir d'un ensemble de ressources provenant de l'environnement et des caractéristiques individuelles, ces ressources sont converties par des facteurs de conversion personnels et professionnels en un ensemble de capabilités. Cela correspond à une situation dans laquelle l'individu a le potentiel d'obtenir des résultats précieux grâce à son travail, c'est-à-dire qu'il est mis dans les conditions pour le faire. En fait, l'individu a le choix de ce qu'il souhaite poursuivre au travail et de la manière de le

faire, pour qu'il obtienne des contributions précieuses, des résultats qui sont importants pour lui. Cependant, en plus de ces résultats précieux, l'individu éprouve également du bien-être, trouvant une situation de haute qualité de vie professionnelle : il est capable de travailler pendant de longues périodes, d'obtenir de bonnes performances et d'être engagé (Van Der Klink et al., 2016).

Dans l'approche d'employabilité durable, la responsabilité de son développement est partagée entre les individus et l'entreprise (Abma et al., 2016 ; Van Harten, 2016), ce qui suggère la nécessité de dialoguer, de fixer des objectifs communs, d'être transparent et collaboratif. En particulier, Van Harten (2016) suggère que pour promouvoir une employabilité durable, les emplois devraient offrir aux salariés des expériences significatives, susceptibles de favoriser le développement de leurs compétences et, plus généralement, le développement personnel et professionnel de l'individu.

Pour que l'employabilité durable soit atteinte et profite réellement au salarié sur le long terme, il est essentiel de mettre la personne au centre. De cette manière, il est possible pour les employés de s'épanouir de différentes manières, en apportant leur contribution à une cause significative et en s'assurant qu'ils peuvent maintenir leur santé et leur bien-être à long terme au travail. Pour les employeurs et les employés, l'employabilité durable implique la création d'une perspective commune qui profite aux deux parties.

En effet, la littérature a confirmé les avantages potentiels de l'employabilité durable, comme une probabilité accrue de prospérer plus longtemps sur le marché du travail. L'employabilité durable est bénéfique tant pour les employeurs que pour les salariés : en effet, les individus sont plus satisfaits de leur travail tout en étant plus performants (Van Harten, 2016 ; Van Der Klink et al., 2016).

Le cadre de l'employabilité durable semble offrir un grand potentiel pour faire avancer les débats autour de l'employabilité et sur la manière de créer une perspective commune pour les employeurs et les employés. La conceptualisation de l'employabilité durable est assez théorique, avec un manque de clarté quant à la possibilité de la réaliser concrètement dans sa carrière. La complexité vient de la multi-dimensionnalisé du concept, qui nécessite des contributions à la fois de l'individu et de l'entreprise pour pouvoir être atteint.

Ce projet de recherche a commencé comme une enquête sur l'employabilité dans le travail réel : en effet, comme le montrent divers rapports et articles scientifiques, la simple acquisition d'un emploi n'est pas considérée comme satisfaisante pour qu'une partie importante des individus dans la société occidentale se considèrent comme réalisés. De plus, être employable signifie être mis dans les conditions pour atteindre une situation d'employabilité, facilitée par les possibilités qu'offre l'organisation en termes d'opportunités de développement et de croissance personnels.

La notion d'employabilité durable et les prémisses de ce cadre théorique semblent éclairantes et prometteuses. Cependant, une question persistante demeure : comment parvenir

concrètement au développement d'une employabilité durable ? Serait-il possible d'y parvenir grâce à ses décisions de carrière ?

Afin d'identifier des stratégies viables pour résoudre ce problème, une revue approfondie de la littérature sur l'employabilité et l'employabilité durable a été menée, ainsi que sur la conception des emplois. Cette analyse a pour objectif de comprendre si et dans quelle mesure il est possible de créer des emplois et des conditions d'emploi permettant à l'individu de se développer personnellement et professionnellement.

Pourtant, dans une période d'incertitude, où les salariés se voient attribuer de plus en plus de responsabilités dans le développement de leur employabilité et dans les résultats de leur carrière, ils ne disposent souvent pas de la liberté dont ils auraient besoin pour réellement contrôler leurs activités. En définitive, pour être employables, les individus doivent être capables de façonner leur vie professionnelle de manière autonome et responsable.

Par conséquent, l'employabilité durable implique d'être capable de travailler correctement, d'être performant et de maintenir un bon équilibre entre vie professionnelle et vie privée et une bonne santé au travail. Les employés doivent être capables de planifier leur vie et leur emploi à long terme et de développer les compétences qu'ils pourraient acquérir à l'avenir tout en exerçant leur emploi. En ce sens, la possibilité de formation et de développement doit venir de l'entreprise elle-même, qui doit s'occuper de la formation des salariés.

Job design et job crafting pour l'employabilité durable

Pour comprendre comment l'employabilité peut être développée ou dégradée dans la vie professionnelle, il est important de se concentrer sur les théories sur le job design. L'objectif est de comprendre comment la conception d'emplois peut améliorer ou empêcher le développement de compétences ou de traits qui aident les employés à gérer leur employabilité. En se concentrant sur la compréhension de la manière dont la conception des emplois pourrait offrir aux employés la situation idéale pour créer une situation d'employabilité durable, le concept de *job crafting* semblait être la solution appropriée.

Le *job crafting* est un concept qui a été défini pour la première fois dans la littérature en 2001 par Amy Wrzesniewski et Jane Dutton, qui l'ont décrit comme un ensemble de comportements proactifs adoptés par les employés pour modifier leur travail, dans le but de le rendre plus adapté à eux-mêmes. Les auteurs ont identifié trois modalités dans lesquelles le job crafting peut être réalisé : le *task crafting*, qui consiste en une modification des tâches, le *crafting relationnel*, concernant la manière dont les individus font varier les relations qu'ils entretiennent au travail (avec les clients ou les collègues par exemple), et le *crafting cognitif* - le changement de regard sur son métier.

La littérature sur le *job crafting* est florissante et une autre perspective importante est développée par des auteurs tels qu'Arnold Bakker, Evangelia Demerouti et Maria Tims depuis 2010. Cette deuxième perspective est basée sur le modèle Job Demands-Resources dans lequel les caractéristiques du travail sont classées comme des demandes ou des ressources. Le job crafting, dans cette perspective, consiste à trouver un bon équilibre entre les exigences du

travail et les ressources du travail, pour améliorer la gestion du stress et prévenir l'épuisement professionnel. Le job crafting est un phénomène intéressant et la recherche montre ses effets bénéfiques sur les travailleurs, en termes de satisfaction, d'engagement au travail, de performance et de bien-être. Les retombées positives sont également présentes pour l'entreprise, puisque les performances et l'engagement des salariés s'améliorent.

Ainsi, le *job crafting* permet aux individus d'adapter leur travail à eux-mêmes, en choisissant comment le façonner en fonction de leurs besoins. Leurs besoins et qualités, mais aussi les phases de vie et de carrière dans lesquelles ils se trouvent. Être capable d'améliorer et de développer leurs propres compétences comme ils le jugent préférable pour eux aidera les employés à être et à se sentir plus employables, plus en mesure de définir leur propre carrière. En effet, dépasser les limites de leur travail actuel les aidera à définir à quoi ressemblera leur prochain emploi. Les employeurs peuvent être plus ou moins conscients de la manière dont les employés font du *job crafting*. Selon la littérature, la promotion du *job crafting* est bénéfique pour les organisations. Selon l'activité, la portée et le style de gestion de l'organisation, le *job crafting* peut être perçu de manière plus ou moins positive.

Questions de recherche

Le concept de *job crafting* mérite des études approfondies en ce qui concerne les conséquences en termes de développement de l'employabilité des individus. En effet, de nombreuses questions émergent quant aux modalités selon lesquelles les individus pourraient façonner leur emploi, mais également sur son effet, tant à long terme qu'à court terme, sur le rôle de l'organisation dans ce processus de création d'emploi. En particulier, le *job crafting* pourrait être liée aux problèmes liés à l'employabilité et à son développement. Dans cette thèse, nous nous concentrons sur ces aspects. En fait, puisque les employés initient de manière proactive un ensemble de comportements et se sentent en droit de le faire, s'appropriant ainsi leur travail, le *job crafting* pourrait-il les aider à améliorer à la fois leur situation actuelle au travail et leur employabilité future ?

Dans notre recherche, nous visons à étudier les questions de recherche suivantes :

> • *Le job crafting peut-il contribuer au développement personnel et professionnel des salariés ? Est-il possible de créer un lien entre job crafting et employabilité durable ?*
> • *L'employabilité durable pourrait-elle être construite dans le travail au quotidien, en trouvant satisfaction et sens, tout en planifiant sur le court et le long terme ?La création d'emplois pourrait-elle contribuer au développement d'une employabilité durable ? Et si oui, comment ?*

Ces questionnements tournent autour du développement d'une employabilité durable, à travers le *job crafting*. La complexité et la multi-dimensionnalité du concept d'employabilité durable

le rendent plus difficile à aborder : en effet, il englobe l'ensemble de la vie professionnelle des individus, dans une dimension longitudinale.

Il est donc nécessaire, pour mieux comprendre comment une employabilité durable peut être développée dans une collaboration entre employeur et salariés, à travers le *job crafting*, d'articuler ces questions générales dans des domaines d'investigation plus petits et plus précis. La thèse s'articule en fait en trois articles, qui exploreront la thématique générale de manière plus précise.

Papier 1. *The Shape of Hybrid Jobs*

La première étape pour parvenir à une employabilité durable pour un individu consiste à posséder les qualifications et les compétences nécessaires qui le rendent employable. À la lumière des changements mondiaux, des questions se sont posées quant aux moyens par lesquels les individus peuvent rester attrayants pour les employeurs malgré la pression du changement continu, tout en atteignant simultanément la satisfaction dans leur profession. Afin d'être efficaces, les employés doivent s'attaquer à des problèmes complexes et utiliser divers ensembles de compétences. Notre première étude, intitulée *The Shape of Hybrid Jobs*, écrit avec la Professeure Martina Gianecchini et le Professeur Paolo Gubitta, de l'Université de Padoue, Italie, vise à étudier le phénomène d'évolution des exigences professionnelles au fil du temps, obligeant les individus à employer une combinaison de divers ensembles de compétences pour fonctionner de manière optimale. Dans de tels emplois hybrides, les employés sont censés résoudre des problèmes complexes en utilisant une gamme de compétences. L'étude cherche à examiner comment l'évolution des exigences professionnelles nécessite l'intégration d'ensembles de compétences variés. Cette étude utilise le cadre professionnel en forme de T pour étudier les diverses exigences professionnelles qui nécessitent l'application de plusieurs ensembles de compétences pour atteindre un rendement optimal au travail. Par conséquent, notre objectif est de comprendre l'existence potentielle de rôles professionnels distincts en fonction de la nature et de l'étendue des capacités spécialisées requises. Le but de cette recherche est d'étudier la présence d'attributs individuels ou organisationnels qui ont un impact sur la probabilité qu'un employé soit sollicité pour augmenter sa spécialisation ou élargir son répertoire de compétences.

Grâce à notre étude, nous avons pu confirmer que les individus peuvent s'épanouir dans le moment présent et doivent se préparer aux moments futurs ; pour cela, ils doivent développer un ensemble de compétences requises sur le marché du travail. Cependant, une seule et profonde spécialisation ne suffit souvent pas ; la combinaison de différents ensembles de compétences est de plus en plus nécessaire. Les employés doivent être suffisamment flexibles pour être prêts à acquérir différentes compétences, en préparant l'avenir d'une part et en enrichissant leurs connaissances et capacités de départ, d'autre part. Par ailleurs, diverses combinaisons de compétences existent et elles sont associées à différents profils personnels et professionnels. Les différentes formes d'emplois qui ressortent de notre analyse sont liées au

niveau d'éducation de la personne, à la fonction occupée dans l'entreprise et au secteur d'activité considéré.

De notre analyse, il ressort que les travailleurs les plus vulnérables sont ceux qui présentent une forme en Pi avec un faible niveau de spécialisation dans deux domaines de compétence. Pour éviter de se retrouver dans une situation difficile du point de vue de leur employabilité, ils doivent s'assurer qu'ils peuvent améliorer leur spécialisation, en approfondissant leur niveau de compétence dans au moins un domaine.

Notre étude souligne comment, pour réussir à s'épanouir dans un environnement de travail en évolution, il est important de développer différents types de compétences et de pouvoir évoluer en approfondissant ou en élargissant l'ensemble des compétences dont on dispose. Grâce à notre étude, nous montrons comment différents ensembles de compétences peuvent être articulés de différentes manières pour différentes personnes. Ainsi, le contenu des emplois englobe de plus en plus souvent plusieurs types de compétences différents. Dans ce cas, les salariés devraient se voir offrir la possibilité d'acquérir ces ensembles de compétences. De cette manière, ils pourraient accroître leur employabilité et être plus utiles à l'organisation en étant capables de mélanger davantage d'ensembles de compétences. Cela pourrait être particulièrement pertinent pour la planification de l'apprentissage et du développement des organisations : intégrer la nécessité pour les salariés d'acquérir de nouvelles compétences sur le lieu de travail nécessiterait des investissements dans ces domaines, mais également des avantages en termes de spécialisation des salariés.

Paper 2. *Don't let me down !* Job and career crafting for sustainable employability
Le document de recherche suivant s'intitule *Don't let me down ! Job and career crafting for sustainable employability*. Nous avons mené cette recherche en interrogeant des personnes occupant différents emplois, travaillant dans un laboratoire de physique, pour comprendre dans quelle mesure le *job* et le *career crafting* étaient présents et avec quels impacts. Nous souhaitions explorer si et comment la création d'emplois et de carrières pouvait être mise en œuvre dans le but de construire l'employabilité durable. Par conséquent, nous avons examiné comment les individus pouvaient modifier leur travail pour l'adapter à leurs besoins personnels, en modifiant leurs tâches, leurs relations interpersonnelles et leur évaluation cognitive de leur travail. De plus, nous avons étudié les impacts à long terme du *job crafting* sur l'employabilité durable. Nous pourrions montrer les mesures que les individus peuvent prendre pour façonner leurs responsabilités professionnelles actuelles tout en développant simultanément des stratégies pour leur futur parcours professionnel, dans le but ultime d'éviter de devenir obsolète à long terme. L'étude a démontré la manière dont les individus intègrent le *job et le career crafting* sur des périodes à court et à long terme, conduisant finalement à une employabilité durable.

En fait, nous pourrions comprendre l'impact de la création d'emplois sur des aspects à plus court terme de l'employabilité durable, tels que le bien-être, la qualité de vie au travail et l'engagement au travail. Au lieu de cela, l'élaboration de carrière s'attaque aux caractéristiques

à long terme de l'employabilité durable, telles que la satisfaction de sa carrière, le fait d'apporter des contributions précieuses et d'obtenir de bons résultats au fil du temps. C'est donc sur ces deux horizons temporels que peut se développer une employabilité durable : les individus associent la planification stratégique de leur réussite professionnelle à long terme à un intérêt à court terme pour leur satisfaction quotidienne et leur bien-être au travail. En effet, l'employabilité durable se construit au fil du temps, mais en mettant également l'accent sur le présent. En ce sens, il devient important pour les salariés de se sentir partie intégrante d'un groupe au travail et de construire un réseau auquel ils pourront se référer tout au long de leur vie professionnelle.

Paper 3. *We're all in this together!* Job crafting and prosocial behaviours among low skilled workers

L'étude menée en troisième lieu, *We're all in this together ! Job crafting and prosocial behaviours among low-skilled workers*, examine la relation entre *job crafting* et les comportements prosociaux chez les travailleurs peu qualifiés, en mettant l'accent sur l'employabilité durable. La recherche vise à relever les défis rencontrés par ce groupe pour maintenir son employabilité au fil du temps et à atténuer le stress et la tension associés. L'objectif de la recherche est d'étudier la viabilité de la création d'emplois comme moyen de gérer le stress des travailleurs confrontés à des environnements de travail exigeants. De plus, notre objectif est d'étudier les éléments organisationnels qui contribuent à améliorer le bien-être des individus.

La présente enquête utilise les fondements théoriques de la théorie de la régulation sociale (Reynaud, 1979) pour expliquer le processus de formation des règles, puis le relie au cadre de la conception et de la création des emplois. L'objectif de cet article est de comprendre l'interaction et la conjugaison potentielle de la théorie de la régulation sociale et de la création d'emplois. En outre, l'étude examine le potentiel du *job crafting* comme moyen pour les travailleurs peu qualifiés de gérer le stress et d'obtenir la reconnaissance dans leurs rôles respectifs. L'objectif de notre étude est de déterminer dans quelle mesure le *job crafting,* individuelle et collective, peut servir à compenser le caractère hiérarchique et les règles strictes des emplois basiques et répétitifs.

Dans notre étude, nous avons pu démontrer comment le *job crafting* contribue à renforcer la proximité au sein de l'équipe. En effet, nous avons pu observer que les comportements prosociaux ont augmenté dans les périodes difficiles ; ces moments peuvent être caractérisés par une attitude positive face aux défis lorsque l'équipe est proche et alignée sur un objectif commun.

De plus, nous avons souligné le rôle important de l'organisation quant à la manière et à la mesure dans laquelle les employés peuvent façonner leur travail ; en fait, nous soutenons qu'il est de la responsabilité du superviseur ou du leader d'accorder aux employés le soutien dont ils ont besoin tout en leur accordant la liberté de créer leur travail. De cette manière, le manager

peut s'assurer que les résultats du *job crafting* sont positifs pour les individus et leurs collègues, évitant ainsi les conflits négatifs potentiels.

Le *job crafting* s'est révélée être un moteur d'innovation dans les processus : les employés peuvent proposer de nouvelles façons d'effectuer certaines activités, et ces nouvelles procédures peuvent être diffusées entre collègues puisque les employés s'influencent mutuellement. Une fois devenue la nouvelle norme informelle, l'innovation peut être reconnue par le leader, et elle est donc internalisée et adoptée comme règle formelle par l'organisation. Dans notre article, nous avons expliqué comment le *job crafting* peut donc être considéré comme un précurseur de la régulation ascendante et autonome qui caractérise la théorie de la régulation sociale de Reynaud.

Discussion et conclusion

Dans notre thèse, nous montrons à quel point le modèle d'employabilité durable peut permettre de mettre les personnes dans les conditions de se sentir épanouies grâce à leur travail et de réaliser quelque chose qu'elles apprécient, en se développant au niveau personnel et professionnel. Nous avons expliqué ce que signifie être employable, quelles combinaisons de compétences ont tendance à être les plus demandées sur le marché du travail et nous avons souligné le fait que, pour les salariés, le développement de différents ensembles de compétences peut les rendre plus attractifs sur le marché du travail.

Nous avons montré comment une employabilité durable peut être développée dans des organisations dotées d'un haut niveau d'autonomie et de liberté personnelle, mais également dans des emplois très prescrits et précis.

Dans notre recherche, nous contribuons au modèle d'employabilité durable de Van Der Klink et ses collègues (2016) : en fait, nous pouvons affirmer que le job crafting constitue une méthode efficace pour favoriser l'employabilité durable. Grâce à une initiative bottom-up et proactive, les individus peuvent apporter leur contribution personnelle à leur travail.

Le cadre d'employabilité durable souligne que les individus doivent être proactifs dans leur travail quotidien et dans la promotion de leur employabilité : en développant leurs aptitudes et compétences, ils sont capables non seulement de faire face aux difficultés et aux changements, mais aussi de choisir dans quelle direction ils souhaitent développer leur métier et développer leur carrière. En effet, prendre des initiatives amène les gens à se soucier davantage de leur travail, à se sentir plus engagés et disposés à s'améliorer dans leur carrière. Ces aspects sont importants pour les travailleurs qui sont à la fois autonomes, hautement responsables et actifs, mais aussi pour ceux qui occupent des emplois beaucoup plus contraints, sans grande liberté.

Nous contribuons au modèle en ajoutant que l'organisation du travail est effectivement un facteur crucial pour permettre aux salariés de convertir leurs ressources en capacités. De plus, nous montrons comment le *job crafting* devrait être intégré dans le modèle en tant que facteur de conversion permettant aux salariés de faire des choix conscients concernant leur travail, leurs compétences et leur carrière, tout en améliorant le travail lui-même, bénéficiant ainsi à l'organisation dans laquelle ils travaillent.

Le modèle d'employabilité durable est donc intégrateur : il permet de concilier la perspective des employeurs et des employés dans un point de vue unique, visant à créer un monde du travail meilleur et plus durable pour les deux parties. En fait, les employés peuvent bénéficier de la poursuite d'objectifs précieux à travers leur travail, en choisissant dans quelles directions développer leurs compétences au profit de leur carrière. Ils peuvent préserver leur santé au travail et leur bien-être également, en évitant le stress et l'épuisement professionnel en régulant les exigences professionnelles qui pourraient conduire à une tension excessive.

Les employeurs bénéficient de compter sur un ensemble d'employés engagés et satisfaits qui s'engagent à se développer du point de vue personnel et professionnel et prennent des initiatives pour améliorer le processus et le travail lui-même, en l'ajustant pour optimiser les exigences, le travail et performant. Les employeurs devraient, dans l'intérêt du bien-être des salariés et pour améliorer leurs conditions : l'employabilité est une responsabilité partagée.

L'employabilité durable doit donc être considérée comme un objectif partagé entre employeurs et salariés, qui doivent en réalité travailler de concert pour accroître l'intérêt des deux parties. grâce à notre travail, nous pouvons revendiquer la nécessité de renouveler l'attention au travail lui-même, aux activités de travail, au travail réel qui est effectué et qui peut favoriser le développement d'une employabilité durable.

Le *job crafting* porte l'attention sur le travailleur et se concentre sur les activités quotidiennes et leurs impacts à long terme. En fait, l'aspect clé de l'employabilité durable est effectivement la durabilité : une personne doit être employable tout au long de sa vie professionnelle, en bonne santé, capable de travailler, satisfaite de son travail et capable d'obtenir des résultats précieux et positifs.

Par conséquent, si le travail est au centre, il est essentiel de se concentrer sur l'organisation du travail, car elle a le potentiel de créer les conditions d'une employabilité durable. Le job design est, à notre avis, le déclencheur qui encourage l'appropriation du travail par les individus et, à terme, la réalisation d'une employabilité durable.

Nous proposons donc un paradigme pour le développement d'une employabilité durable grâce à l'organisation du travail et à la mise en œuvre individuelle de telles conditions.

L'organisation doit s'assurer que les conditions à court et à long terme pour la réalisation d'une employabilité durable sont réalisées – c'est-à-dire respectivement le bien-être, l'engagement, la satisfaction et la réalisation de la valeur, du sens, de la santé, de la capacité de travail (Van Der Klink et al., 2016 ; Fleuren et al., 2016). Pour ce faire, l'entreprise doit non seulement créer des conditions de travail adéquates pour favoriser le développement des compétences, mais elle doit également être un environnement favorable ou un environnement renforçant les capacités (Fernagu Oudet, 2012; 2016 ; Zimmermann, 2008 ; 2016).

Un environnement capacitant est celui qui, selon Fernagu Oudet (2016), permet au travail d'être capacitant, de donner du sens, d'augmenter l'autonomie. collectives ».

Les organisations doivent s'assurer que les employés sont dans les bonnes conditions pour réaliser ce qui a de la valeur pour eux et poursuivre à la fois des objectifs économiques et un objectif de développement personnel.

Pour maintenir leur employabilité, les individus doivent travailler à l'amélioration et à la mise à jour de leurs aptitudes et compétences au fil du temps (Van Der Hejide et Van Der Hejiden, 2006 ; Williams et al., 2016 ; De Grip et al., 2004). En fait, être continuellement capable d'apprendre de nouvelles choses et de s'adapter à un monde du travail en évolution en étant capable de résoudre des problèmes complexes et en possédant certaines compétences essentielles peut rendre les individus attractifs sur le marché du travail pendant toute leur vie professionnelle (Williams et al., 2016). Par conséquent, on peut considérer les questions liées au développement de l'employabilité durable comme liées à celles de la gestion des compétences et de la création d'un environnement favorable qui crée les conditions d'une employabilité durable.

L'employabilité durable proposée est donc intégrative : l'employabilité durable et le *job crafting* impliquent une activité individuelle de prise de responsabilité tandis que l'organisation reconnaît en même temps l'importance de soutenir les individus dans cet aspect. L'organisation doit reconnaître les différences individuelles et trouver un moyen de planifier le développement des compétences individuelles en concertation avec eux, en s'accordant sur les tendances individuelles et les besoins de l'organisation. Le modèle d'employabilité durable nécessite une communication ouverte et forte entre les deux parties, dans une logique de collaboration.

Bien que la recherche ait mis en évidence des différences en ce qui concerne les résultats à court et à long terme du *job crafting*, nous contribuons à cette distinction d'une manière différente. En fait, des recherches ont confirmé les effets positifs du *job crafting* à court terme, tels que l'engagement au travail (Bakker et al., 2012 ; Tims et al, 2012), l'engagement au travail au quotidien (Petrou et al., 2012), la satisfaction du besoin d'autonomie et de compétence (Slemp et Vella-Brodrick, 2014 ; Wang et al., 2016).

Wang et ses collègues (2016) ont souligné divers effets du *job crafting* à long terme, tels qu'ils ressortent de la littérature. En fait, Wrzesniewski et ses collègues (2013) confirment les effets positifs du *job crafting* dans l'augmentation du sens et de l'identité des employés au travail à long terme. Les employés peuvent améliorer leur adéquation entre leur personne et leur emploi grâce au job crafting, ce qui augmente leur motivation (Tims et Bakker, 2010). Au lieu de cela, Mattarelli et Tagliaventi (2012) se sont concentrés sur la relation entre la création d'emploi et l'identité professionnelle, créant une cohérence entre les deux. Lorsqu'il y a un manque de cohérence, le *job crafting* contribue à combler le vide : le travail est modifié pour l'adapter à l'identité du travail.

Dans notre étude, nous avons réalisé que le *job crafting* peut être réalisée par des individus dans le but d'améliorer leur situation actuelle. Cependant, les individus sont stratégiques par rapport à leur carrière et font des choix orientés vers l'avenir de leur carrière. Ce faisant, les individus planifient leur carrière à long terme : les choix qu'ils font ont des objectifs à long terme qui profiteront à leur carrière. Ils s'engagent donc non seulement dans le *job crafting* avec des intentions à long terme, mais également dans le career crafting (De Vos et Akkermans, 2019), qui consiste en un ensemble de « comportements proactifs visant à optimiser les résultats

de carrière en améliorant l'adéquation personne-carrière » (De Vos et Akkermans, 2019, p. 129). Ces comportements proactifs qui constituent l'élaboration de carrière nécessitent une réflexion sur les motivations et les objectifs de carrière, en étant conscient de leur impact sur l'employabilité, la performance, l'engagement au travail et la réussite professionnelle. En effet, comme le soulignent Tims et Akkermans (2017), la réussite professionnelle et l'employabilité peuvent résulter de la combinaison de la création d'un emploi et des compétences professionnelles.

Nous avons pu confirmer que le *career crafting*, entendu comme les comportements visant à accroître l'adéquation personne-carrière en combinant compétences professionnelles et comportements proactifs, est réalisée lorsque les individus ont un haut niveau d'autonomie dans leur travail et sont motivés à atteindre une carrière réussie dans leur domaine. De plus, ils sont disposés à maintenir leur employabilité : pour cela, ils sont proactifs en maintiennent leurs compétences à un bon niveau et sont disposés à en développer de nouvelles. En général, on pourrait s'attendre à ce que la combinaison de *job* et *career crafting* soit présente parmi les travailleurs ayant des niveaux de compétences plus élevés et dans les conditions nécessaires pour planifier leur carrière sur le long terme : ce sont des individus engagés, désireux de réussir leur carrière.

Dans notre travail, nous avons présenté diverses études sur des aspects tels que l'autonomie, la liberté au travail, les processus de prise d'initiative, le besoin de reconnaissance : ceux-ci ont été explorés par exemple dans la psychodynamique du travail, en ergonomie et dans la théorie de la régulation sociale et montrent quelques similitudes avec le *job crafting.* En effet, dans notre thèse, nous contribuons à créer un lien entre ces deux domaines de la littérature, soulignant à quel point ils peuvent être similaires. Il est intéressant de remarquer les similitudes entre différents cadres théoriques issus de la tradition sociologique – à savoir la psychodynamique du travail, les cliniques du travail, la théorie de la régulation sociale, l'ergonomie et la création d'emplois. En effet, ces cadres théoriques, comme nous l'avons évoqué, s'inspirent du point de vue sociologique, et proviennent de la tradition française d'examiner les relations entre employeurs et salariés comme une relation duale, souvent source de conflits (Dejours, 1993 ; Clot, 2013 ; Bernoux, 2011 ; Reynaud, 1979). Ces théories répondent aux problèmes du taylorisme et du management scientifique du travail et expliquent comment les individus cherchent à se réapproprier leur travail, dans le but de se sentir utiles, reconnus dans leur travail et de percevoir que leur travail a du sens et contribuer positivement à l'organisation dans laquelle ils travaillent.

Dans ce cadre, nous avons souligné l'importance du partage de la responsabilité de la création de telles conditions entre employeurs et salariés. En effet, d'une part, les individus doivent accepter une partie de leurs responsabilités dans la gestion de leur carrière : leur proactivité est fondamentale. Ils devraient activement développer leurs compétences et aptitudes, s'assurer que leurs activités professionnelles ne nuisent pas à leur employabilité, analyser l'évolution à

la fois dans leur entreprise et dans l'environnement externe pour détecter quels sont les facteurs clés qui pourraient influencer leur emploi et quelles sont les évolutions probables qui pourraient les impacter. Ils seront ainsi proactifs dans le développement des compétences adéquates, en façonnant leur métier ou en le proposant à leur entreprise. En étant responsables de leur employabilité, les individus peuvent se sentir plus engagés et auront la possibilité de choisir de donner à leur carrière la direction qu'ils préfèrent et de se sentir plus en phase avec leurs valeurs et leurs convictions.

D'un autre côté, les organisations ne doivent pas compter uniquement sur l'agence individuelle pour développer leur employabilité. En effet, puisque c'est dans les activités professionnelles que se construit et se développe l'employabilité durable il est essentiel que les organisations créent des emplois susceptibles de favoriser le développement des salariés en les mettant dans les conditions nécessaires pour développer leurs compétences. Les emplois doivent offrir des possibilités d'évolution, mais aussi de satisfaction et de sens : leur contribution à l'entreprise doit être claire et leur valeur renforcée. Les employés doivent être soutenus dans leur travail et, s'il devient nécessaire qu'ils changent d'organisation, les organisations doivent aider leurs travailleurs.

Dans ce cadre donc, il est intéressant de comprendre quel est le rôle de la gestion des ressources humaines ? Comment les ressources humaines peuvent-elles contribuer à l'épanouissement des individus dans un contexte d'incertitude et d'évolution constante, et dans lequel les entreprises elles-mêmes ne peuvent assurer des prévisions sûres ?

La gestion des ressources humaines doit adopter une approche qui permet à l'organisation de maximiser ses objectifs économiques, tout en s'assurant que les capacités des individus contribuent à ces objectifs économiques, sans être endommagées. Les ressources humaines doivent s'assurer que les employés de l'organisation sont satisfaits et mis dans les conditions nécessaires pour atteindre leurs objectifs professionnels sans conséquences néfastes sur leur vie personnelle. Les individus doivent être valorisés pour leurs contributions et doivent bénéficier d'une confiance suffisante pour disposer de suffisamment de latitude pour résoudre leurs problèmes et concevoir leur travail de la manière qui leur semble la plus appropriée. Les salariés doivent pouvoir compter sur le soutien des responsables des ressources humaines.

L'employabilité durable implique non seulement d'être capable de trouver un emploi, mais aussi de trouver un emploi qui permette de se sentir épanoui et satisfait en accomplissant quelque chose de précieux, en étant en bonne santé et en entretenant une relation bonne et équilibrée avec le travail. La durabilité est donc une question de sens, de réalisation de valeur et d'équilibre pour durer à long terme.

L'employabilité devient donc la nouvelle sécurité de l'emploi, la manière dont les salariés peuvent s'assurer de pouvoir continuer à progresser dans leur carrière. À long terme et dans un environnement incertain et instable où le changement est constant, l'employabilité permet aux individus d'acquérir une variété d'expériences professionnelles différentes au cours de leur carrière.

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1. Chapter overview

In this chapter, dedicated to the general introduction to the thesis, we will deal with the context of our research, by illustrating some trends shaping the world of work today.

In particular, we will deal with the importance of the technological development and its consequences on the world of work in terms of automation and transformation of the content of work. Second, we will explain how, as a consequence of this and of the increasing instability in the economic situation, individuals will not be able any more to count on a predictable, clear career for their whole life. Indeed, employees will need to adapt to the evolution in their jobs through an attitude of continuous learning and upskilling. We will also discuss trends such as remote work, the risks of increased instability coming from the gig economy, the augmented importance of sustainability from the economic, environmental, and social point of view.

We will then introduce the theoretical framework of reference: the theme of employability and in particular the developing framework of sustainable employability, at the center of our dissertation. We will present the main, general questionings related to the development of sustainable employability. For this reason, we will introduce the reflection on job design and in particular on job crafting, as a mean to develop sustainable employability.

We will highlight the research questions that drive our investigations and will delineate the organization of the thesis, constituted of a consistent literature review on employability, sustainable employability, job design and job crafting, three research papers, and a general discussion and conclusion.

2. Introduction

This thesis deals with large, wide-ranging questions about how to build sustainable employability in an evolving world of work.

The themes come from the evolution of the reflections on the topic of employability, developed through the 20th century and still flourishing nowadays. The dissertation will deal with several conceptualizations of employability through time, showing how it is still an important concept to discuss and how to develop it. Moreover, we will articulate the thesis on the problem of developing sustainable employability from a unifying perspective for employers, employees, and society at large. We will explore this large question in three different papers, each dealing with a subtopic of the main research question.

In this chapter, we are going to introduce the main theme of the dissertation as well as the motivations for this study. First, we are going to start by examining the context and showing how the world of work is evolving, underscoring the fact that employability still remains an issue.

Moreover, in the current situation, it is important to shift the point of view on employability to find a more comprehensive approach between individuals, organisations, and society.

3. Various global trends shaping the world of work

As previously mentioned, a number of macro-trends—including technological advancement, migration, demographic shifts, the economic crisis, the most recent COVID pandemic, the climate crisis, and political tensions, particularly in Ukraine—have an impact on the world of work.

Indeed, as the International Labour Organisation underlines, the economic context is at the moment quite difficult at the global level (ILO, 2023): this period is characterised by a low level of growth but with high inflation, which causes a decrease in purchasing power for citizens. Moreover, as the ILO reports, "the long-term slowdown in productivity growth in advanced economies has spread to major emerging economies" (ILO, 2023, p. 16). This tendency represents a problem, "since growth in productivity is key to addressing today's multiple crises in purchasing power, well-being, and ecological sustainability" (ILO, 2023, p. 16).

Besides the low economic growth and inflation, another factor causing further difficulties in the economies comes from the shocks in the supply chain due to the tensions in Ukraine and the rising costs of energy for Western Europe (ILO, 2023). These factors worsen the situation of governments: the world economies are still recovering from the global COVID-19 pandemic and are facing high inflation levels.

The hard economic situation is even worse for low-skilled workers and lower-income people. In fact, around the world, there are major decent work deficits that undermine (or change) social justice in terms of the lack of access to paid employment, social protection, and the respect of fundamental rights at work. These issues concern mainly women and young workers, who are often paid less or suffer the consequences of gender gaps, thus suffering from unequal income distribution and injustices. In fact, some people simply can't afford to be without a job to have access to social security, but these jobs would be low-quality ones with inconvenient hours or insufficient time slots.

Other trends are also shaking up the workplace. For instance, changes in demographics represent a challenge many Western countries will have to face or are already facing (Balliester and Elsheikhi, 2018). In fact, an ageing population represents a problem since it can lead to a shortfall in labour supply, which will not likely be compensated by immigration from more demographically active countries. For instance, the ageing population will be responsible for a shrink in the working-age population in Europe by 13.5 million people (4%) by 2030 (McKinsey Global Institute, 2020). In this sense, technological innovations such as artificial intelligence, represent an opportunity to increase productivity and mitigate the issues of a shortage of labour force that come from an ageing population (ILO, 2023).

3.1.   The technological evolution and its consequences on the world of work

Indeed, an important theme is one of the technological advancements and their consequences on the world of work. Automation promotes a shift towards less manual, more intellectual work; employees will be more white collars than blue collars.

Although an important concern is related to the consequences that technological advancements can have when applied to the world of work. Indeed, technological progress has, since the Luddites in the 1800s, been seen as a risk for human workers. They fear being replaced by machines and remaining without a job.

Studies, however, report more nuanced and complex results than a simple, jobless future. Innovations such as AI, robotics, and automation will represent, and to some extent are already representing, important transitions in the world of work. This transition is actually happening fast: 22% of current work activities will be automated by 2030 (McKinsey Global Institute, 2023). It is true that some tasks will be automated or delegated to certain types of artificial intelligence, resulting in job losses for these employees. But these innovations will likely create many more jobs than they will reduce. However, the problem related to this job creation comes from the fact that those who lose their jobs due to these shifts might be those who are the least able to grasp the opportunities these technologies bring (ILO, 2023; Balliester and Elsheikhi, 2018). As a consequence, the world of work will be even more polarised.

In fact, the jobs that will be substituted by AI or simply automated in most cases belong to low-skilled workers, whose jobs are composed of simple, easy tasks that are repeatable. Therefore, the technological innovations are not equally shared; there is likely to be a high concentration in the industry due to the fact that the intangibles in these business models have a very high

value. Thus, there will be a high level of separation between the productivity of a few companies and the rest (ILO, 2023).

As a result of technological innovations and the polarising consequences of their usage, jobs and organisations are heavily impacted. The growth of jobs will be focused on high-skill jobs, especially in the sectors of healthcare, science, technology, engineering, and math (STEM). Instead, middle- and low-skill jobs will decline; this will be the case in sectors such as food service, production work, or office support (McKinsey Global Institute, 2020).

According to Fleming (2019), instead, many jobs won't disappear in the near future, but it is likely that low-paid jobs will increase. Moreover, in general, tasks that can't be completely substituted by computerization will evolve to include new technologies (Fleming, 2019). In fact, as underlined by Balliester and Elsheikhi (2018), even though the rising usage of robotics, AI, and automation will affect workers, there can be an increase in jobs depending on human traits such as emotional intelligence and creativity.

However, there will be an increase in the demand for low-skilled workers due to the ageing population, especially in some sectors such as renewable energy technicians, warehouse workers for e-commerce sectors, nurses, home health aids, hearing technicians, etc. (ILO, 2023).

Since high-skilled job opportunities are concentrated in a few tech-based industries, the International Labour Organisation (2023) claims the need for a regulation that promotes technological development "in areas that have high social returns, through standard setting and public procurement approaches and productivity-enhancing collaboration among social partners" (ILO, 2023, p. 16).

Due to accelerated technological innovations, workers 'competences will need to adapt and evolve. As reported by the McKinsey Global Institute (2020), employees will have to learn new skills: 94 million workers may switch to a different job but will need to be retrained, and 21 million of them will have to do so by 2030. The main issue is that most of these workers lack tertiary education; hence, training might be more challenging for them. Indeed, new jobs will require more sophisticated skills, which are already scarce today (McKinsey Global Institute, 2020). Consequently, training and up-skilling will be one of the main challenges employees, employers, and public institutions will have to face in the near future.

3.2. A lifelong learning attitude: a necessity for longer, unstable careers

The need to continuously adjourn one's skills and adapt one's competences to the evolutions of the world of work makes the lifelong learning approach a necessity for most people and firms. Those who are able to find ways to learn new skills and detect those that are and will be useful are better equipped to face the uncertain future than those who can't adapt and evolve (MGI, 2020).

The problem of skill mismatch and skill gap is present not only among those who are already working but also among young graduates. Higher education seems in a difficult situation: many young graduates, especially in humanities and artistic disciplines, have a hard time finding a job that compensates them fairly. Their knowledge and skills are not required in such a high quantity in the job market. Others end up in jobs they are overqualified for. The problem of regulating the access to universities on the basis of what the job market requires is challenging and demands important choices to be made by the public powers (Brun-Schammé and Rey, 2021).

In fact, on the one hand, students who graduate should expect the possibility of finding a good job, in accordance to the skills developed thanks to their education. However, the intrinsic nature of university education is to help students flourish in the disciplines they like and are more talented in, and to be able to develop critical thinking and be responsible, informed, and educated people. The world needs a combination of talents and skills, and even those who seem to be less monetizable represent a huge richness for human nature. Combining the need to educate students to critical, independent thinking and to offer them the possibility to actually find a good job for them is really challenging for the education system, and should be taken seriously by public powers, universities, and employers (Brun-Schammé and Rey, 2021).

Indeed, the issues related to skill mismatch in higher education represent a problem for several reasons: first, many young graduates find it hard to land a job, and they often need further specialised courses. Second, firms have a hard time recruiting new talents that are competent in the areas they are working in, and often they need a long period of training to be ready to work. To smooth the transition for young graduates to the world of work, universities should rethink their model of education. For instance, they could add some specific, precise specialization courses on relevant practical skills for the world of work. It is important that these courses are quick and updated constantly, according to what the job market requires. Indeed, when the university classes are updated, it often takes time before the young graduates

can really spend those competencies in the world of work, which might have already evolved again in the meantime and will need different competencies.

3.3.   Remote work is here to stay

Another trend that has risen exponentially in the last couple of years is remote work: this trend, due to the Co-vid-19 global pandemic was strongly supported by the technological evolution. In fact, high-speed internet connections, the development of video-conference platforms and new tools have influenced the global adoption of remote work (ILO, 2021).

The habit of remote work is posing several challenges on managers: even after the emergency from the pandemic, remote work is here to stay. In fact, most workers have claimed their intentions of keeping working remotely for some days a week. In 2023, however, many companies, especially in the US, have been requesting to their workers to come back to the office. This has caused many employees to be dissatisfied with the lack of flexibility, leading a part of them to eventually leave. The policies for hybrid work in many companies, meanwhile, are still in place in many companies who don't necessarily require the physical presence of employees, due to the nature of the job (ILO, 2021).

Managing a disperse, remote workforce is, consequently, challenging for managers: the challenge comes from the need to create a feeling of belonging towards the company, to make people feel part of a team, and to build a unique, strong company culture.

3.4.   Gig workers: an increase in instability?

Another trend related to the Co-Vid-19 pandemic is the increase in informal job arrangements (International Labour Organization, 2023). According to Balliester and Elsheikhi (2018), the rise of platforms, brought by the development of the sharing economy and the gig economy, has contributed to the augmentation of the number of self-employed and contingent workers. Indeed, around 40% of the American workers are independent (Balliester and Elsheikhi, 2018, p. 19). Self-employed and gig workers are examples of the uberization of work, which exposes traditional groups in competition with new entrants in several markets, due to the access to peer-to-peer platforms (Daidj, 2017).

These workers often need to cumulate multiple gigs at the same time to make enough to live, and often don't benefit from any type of social protection, since such benefits are not provided by the platform. According to Balliester and Elsheikhi (2018), these non-standard forms of job represent a threat to the progress made in terms of occupational health and safety, in terms of

regulations: on the contrary, they present many risks from the physical and psychosocial point of view (Balliester and Elsheikhi, 2018).

However, the uberization of work seems to have brought more flexibility in the labour market, and has helped people who didn't have access to the labour market to finally enter the workforce, including, for instance, women, immigrants, older workers (Balliester and Elsheikhi, 2018).

3.5. Sustainability: a multifaceted approach for a more harmonious future

Sustainability has become a central theme at a global level: public powers are starting to be more seriously concerned about the risks of climate change. Governments are taking some steps to reduce pollution and impose more stringent regulations on people and businesses, with the goal of mitigating the effects of climate change. Indeed, the International Labour Organization (2023) reports that the climate crisis is causing issues and hard situations, because of extreme weather events, such as flooding, droughts, heatwaves, heavy rains, erosion of the soil, and land degradation. To adapt to such changes, it is necessary to invest significantly in infrastructures, especially in the most affected regions (ILO, 2023). However, if on the one hand, climate changes causes huge problems to the planet and societies, it has an impact on the world of work too. In fact, some jobs, in polluting industries will have to change, while many "green jobs" will be created, especially in poor countries (ILO, 2023).

Indeed, a report from France Stratégie (2015) warns about the fact that many high energy-intensive sectors, such as those producing or using carbon-fossil fuels, will be affected by the green policies. Hence, they will be forced to cut jobs. However, the transition to a greener economy is likely to create more jobs than those that will be destroyed (France Stratégie, 2015). Therefore, the transition to a greener economy will imply that some new types of skills and competences will be necessary: at the moment, many of these competences aren't developed yet. Hence, an effort in terms of filling skill gaps and solve mismatches will be required (ILO, 2023, McKinsey Global Institute, 2020).

However, for businesses, sustainability doesn't only involve the environmental sustainability. On the contrary, the definition of sustainability is based on three pillars (United Nations): environmental, economic, and social sustainability. While environmental sustainability concerns making sure that our planet is respected, the level of pollution diminishes, endangered species are not at risk any more, and climate change is solved, social and economic sustainability address the problems of a decent life and economic profitability.

According to the United Nations, social sustainability "is about identifying and managing business impacts, both positive and negative, on people. The quality of a company's relationships and engagement with its stakeholder is critical. Directly or indirectly, companies affect what happens to employees, workers in the value chain, customers and local communities, and it is important to manage impacts proactively" (United Nations, https://unglobalcompact.org/what-is-gc/our-work/social, accessed 8th September 2023, 11:53).

Six of the UN Global Compact principles focus on the social dimensions of the corporate responsibility, clearly stating the important role firms have in providing at least decent working conditions to their employees, as part of human rights.

We will focus in the next paragraph on the increased attention to the a more human-centered approach at work, in accordance to the social sustainability dimension.

3.6. Sustainability at work: putting workers at the center

The ILO (2023) underlines the importance of a "more human-centered policy approach to strengthen the resilience of the economies and societies to advance social justice amidst the major economic shifts and shocks under way" (ILO, 2023, p. 49).

Hence, it becomes essential to put the social contract at the center again: this implies providing people a fair share of the economic results, protecting and respecting their rights, and granting them security against risk. These initiatives are taken with the goal of promoting the economic development. A sustainable employment is thus characterized by its attractiveness for talents, and the attention to the worker's financial, physical, and mental health.

In addition to that, the World Health Organization (WHO, 2019), advocates for the importance of social dialogue, to include the workers who still aren't in this kind of process and to enhance its importance.

The ILO (2023) proposes a human-centred agenda for the future of work, underlining the importance of a social contract based on the possibility for people to secure income, health, and good living standard through work. This means that the need exists for improving the social contract and putting people at the centre not only of the economic and social policies, but also of business practices (ILO, 2023).

The WHO is aligned with this proposal (2019), and has suggested three main pillars of action, coherent with this point of view. The first one involves "Increasing investments in people's

capabilities" (WHO, 2019, p. 11), considering it as "a universal entitlement to lifelong learning that enables people to acquire skills and to re-skill and up-skill".

Thus, if people consider themselves as "entitled" to lifelong learning, a much more consistent investment should be done by firms and by the state to favour such approach. In fact, the demand for continuous learning resources would be much more demanded by the people themselves.

In a lifelong learning approach, opportunities to learn and improve should be granted to everyone. It is important that those who don't have the skills to be employed are offered the possibility to be trained to enter the world of work, while those whose skills are obsolete should benefit from up-skillling and re-skilling programmes. Institutions and firms will need to plan for massive investments and strategies that promote the transition of people at work, while making sure equal opportunities are given to everyone.

The second pillar involves "increasing investments in the institutions of work" (WHO, 2019, p. 12), making sure that workers and employers are equally represented in the social dialogue, that should be promoted by public policies. Moreover, a "universal labour guarantee" should be established, and a decent work should be granted to everyone, thanks to the support of technology too.

The third pillar is about "increasing investments in decent and sustainable work" (p. 13), through the promotion of investments in those areas, but also modifying the structure to ensure long-term investments. Indeed, the UN Sustainable Development Goals includes decent work among its objectives for 2030, which requires important investments and involvement of businesses and institutions to be achieved, for instance increasing the ethical standard requirements and reinforcing the controls for businesses.

Moreover, further indicators of human development and well-being should be developed, according to the WHO (2019), with the goal of changing the incentive structure for businesses, putting the attention on increasing the investments in the longer term and on the wellbeing of individuals.

The agenda developed by the WHO (2019), as well as the recommendation from the ILO (2023), provide guidance as for the steps to implement, but further explorations are required. Indeed, as Fleming (2019) it is important that scholars engage more on themes of social justice.

4. Employability: theoretical frameworks

4.1. Unstable, fragmented careers: a new psychological contract in the world of work

In the previous paragraphs, we have discussed various trends in the world of work, and put the accent on how many of these trends are influencing and reshaping it, thus affecting people's lives in a massive way.

Indeed, until the 2000s, the traditional career path would consist in finding a job after school or university and either remaining at the same level or being promoted towards a more interesting career within the same company (Hall, 1996; Rousseau, 2005). This model, however, has been disrupted by various factors.

For instance, the globalisation has decreased the cost of labour, which has been delocalised to cheaper locations. Also, it has given access to a global workforce for companies who started to expand globally. While the economic benefits were remarkable, various challenges in terms of managing a globally spread company and a dispersed, multicultural workforce are serious and important. The Covid-19 pandemic has posed new challenges with respect to the adoption of remote work and to the creation of a balance for remote and in-presence work.

The adoption of technology on a massive scale and the fast pace of the technological evolution challenge workers to be updated and able to adapt to these changes. This implies a strong effort for employees, who need to adopt a lifelong learning approach.

Indeed, the psychological contract between employers and employees has changed. Traditionally, an employer would guarantee their employees a lifelong employment, offering them the possibility of developing their whole career in the firm, in exchange for their loyalty and commitment. Hence, once one found a job, they would have quite a predictable career path. The traditional psychological contract, though, has been substituted by a new paradigm, a "new psychological contract" (Rousseau, 2004): employers can't offer any more a lifelong employment, as companies may undergo radical transformations or restructuring processes in shorter periods of time, which don't allow employees to count only on one job any more. Indeed, in the case in which their skills become obsolete, their job changes and they can't keep the pace, or their company will undergo a series of restructuring, employees might not be able to remain in the same employment and will have to leave, voluntarily or not. Employees will need therefore to make sure they are in the conditions to find another job throughout their whole working life: they need to nurture their own employability, and they feel their responsibility for that.

Careers, which constituted a certainty with respect to their path and stability for the vast majority of the Western population until the end of the 20th century, have changed. They have become more unstable, uncertain, unpredictable. Some authors talk about boundaryless careers (Mirvis and Hall, 1994; De Filippi and Arthur, 1994), to underline the fact that workers, throughout their careers, will go beyond the boundaries of the single organization, to work for various companies.

Hall (1996) refers to "protean careers" to underline the dimension of discovery of different jobs in various organisations. The name recalls the story of Prometheus, who brought fire to other men, in an adventurous discovery that brings great innovations and progress. Prometheus' fate, however, was nefarious, as the mythology teaches us: he was eternally punished by the gods for having shared fire with men. Protean careers offer the possibility of learning in various organizations, of having the chance to cumulate different experiences and being able to choose the next job. However, at the same time this type of careers place a heavy burden on the worker: the constant stress of being at the best of one's abilities in order to find a better job, the heavy responsibility of being the creators, often the only ones, of their careers.

Developing one's employability has become therefore an imperative for workers.

4.2. Employability: the possibility of finding a job as the new job security

Employability is a largely studied concept in the management literature throughout the 1900s. In its simplest definition, it is considered as "an individual's likelihood of finding a job on the internal and/or external labour market" (Forrier and Sels, 2003, p. 106). This definition underlines the need to be adaptable and flexible, able and willing to update their skills to remain attractive in the labour market.

Other definitions consider the transformations in the external environment and the increased importance of having a purpose at work: Fugate and his colleagues (2004) underline the need to adjust employee skills to the demands the employers, considering that the needs of the current employer may differ from those of the future one.

The recent trends on employability reflect the importance of individual responsibility in its development: workers should be able to detect the best career opportunities and make coherent decisions, leveraging on their competencies. Thus, the focus on the individual agency in the management on one's employability, decreases the importance of the role of the organization

in the employees career management. Individuals, to face the unpredictability and instability of careers, should be able to improve their abilities, adopting a lifelong learning approach, detecting which are the most important competencies to develop (Van Der Hejide and Van Der Hejiden, 2006; Fugate et al. 2004; De Grip et al., 2004; Forrier et al., 2015; Clarke, 2008).

However, several scholars have pointed out that an excessive emphasis on the agent perspective would be reductive and unfair, underlining the fact that employers have their share of responsibility when it comes to helping fostering the workers' employability. According to Fugate et al. (2021), employability is affected by environmental and individual variables. Indeed, Thjissen and colleagues (2008) underline the fact that employability targets a variety of actors: it is an indicator of full employment, beneficial for society and public authorities, it represents a balance between demand and supply of labour, a crucial aspect for firms, and it consists in the likelihood of getting employed for employees. De Grip and colleagues (2004) highlight how employability comes at the junction of human traits, the growth of internal or external labour market needs, and management practises and governmental policies.

Indeed, according to Fugate and colleagues (2021), it is important to focus on the relationship between employers and employees: "employers and employees need each other to compete, survive, and thrive, which means both will need to be increasingly proactive, strategic, and collaborative to meet their respective and collective challenges" (Fugate et al., 2021, p. 5). Employability, therefore, represents the new security for workers, in a context of unstable and uncertain careers. Thus, argue Fugate and colleagues (2021), it is essential to address both the perspectives of employees and of employers, to recognise the unique features of their interactions. Indeed, authors have claimed the need for an integrative approach in discussing employability, as focusing on just one aspect would be reductive (Van Harten et al., 2021; Fugate et al., 2021; Williams et al., 2016).

5. A different approach: the sustainable employability framework

The debates on the conceptualisation of employability, as well as the disputes on its development are far from being resolved. In this context, a different, more comprehensive approach could offer a more thorough understanding and interesting avenues for development: in this sense, the framework of sustainable employability offers encouraging perspectives (Van Der Klink et al., 2016; Fleuren, 2016; Fleuren et al., 2020) In this thesis, this is the framework

that we will consider as a reference: we will focus on its components and the possibilities for its development.

The theoretical framework has its roots on Amartya Sen's capability approach, and starts from the refusal of the idea that individuals are entirely responsible for the development of their employability (Van Der Klink et al., 2016).

Sustainable employability adds another dimension to employability. Indeed, the emphasis is not only on the possibility of having a job, but on its sustainability as well, going beyond the conceptualisation of work as a mere way to earn a living. Rather, work is seen as encompassing a multiplicity of personal and societal objectives, all important for the individual.

The accent put on sustainability indicates the importance of last in time and cope with changes, while growing, improving, and find satisfaction in one's job (Hazelzet et al., 2019).

The concept of sustainable employability is multidimensional: starting from a set of inputs that come from the environment and the individual features, these inputs are converted through some personal and work conversion factors into a capability set. This corresponds to a situation in which the individual has the potential to achieve some valuable results through their job - that is, he or she is put in the conditions to do so. In fact, the individual has the choice about what to pursue at work and how to do it, in such a way for him or her to achieve some valuable contributions, some outcomes that are important for them. Together with these valuable outcomes, however, the individual also experiences well-being, finding a situation of a high quality of working life: he is able to work for long period, achieving good performances and being engaged (Van Der Klink et al., 2016).

In the sustainable employability approach, the responsibility for its development is shared between individuals and firm (Abma et al., 2016: Van Harten, 2016), suggesting the need for dialogue, setting common objectives, being transparent and collaborative. In particular, Van Harten (2016) suggests that to promote sustainable employability, jobs should provide employees with meaningful experiences, that could foster their skill development and, more in general, the individual's personal and professional development.

While we are going to explain the details of the framework of sustainable employability in the chapter dedicated to the theoretical framework of the thesis, it is important to clarify the novelty brought by this framework. In fact, for the sustainable employability to be achieved and actually benefit to the employee in the long term, it is essential to put the person at the centre. In this way, it is possible for employees to find realisation in various ways, providing their

contribution for a meaningful cause, and making sure that they can maintain health and well-being in the long term at work. For employers and employees, sustainable employability is about the creation of a shared perspective that is beneficial to both parties.

Indeed, the literature has confirmed the potential benefits for sustainable employability, such as an increased probability of thriving for a longer time in the labour market. Sustainable employability is beneficial to both employers and employees: in fact, people are more satisfied in their job while performing better (Van Harten, 2016; Van Der Klink et al., 2016).

The framework of sustainable employability seems to offer a great potential to advance in the debates around employability and on how to create a shared perspective for both employers and employees.

In this thesis we will dig deeper on this framework, explaining its origins, antecedents and outcomes, and we will focus in particular on its development.

Indeed, the conceptualisation of sustainable employability is quite theoretical, with lack of clarity as for the possibility of being actually achieved in a concrete way in one's career. The complexity comes from the multidimensionality of the concept, which requires contributions from both the individual and the firm to allow to be attained.

6. Questionings around sustainable employability

This research project started as an investigation about employability in the actual work: indeed, as various reports and scholarly articles show, the mere acquisition of a job is simply not considered satisfactory for an important portion of individuals in the Western society to consider themselves as realized. In fact, the individuals seeking meaning and purpose in their job are an increasing portion. Moreover, being employable means being put in the conditions to achieve a situation of employability, facilitated by the possibilities the organization provides in terms of opportunities for personal development and growth.

Therefore, the notion of sustainable employability and the premises of this theoretical framework seemed enlightening and promising.

However, a persistent issue remained: how can the development of sustainable employability actually be achieved? Would it be possible to achieve it through one's career decisions?

To identify viable strategies to address this issue, an extensive review of the literature on employability and sustainable employability was conducted, as well as on job design. This analysis has the goal of understanding whether and to what extent it is possible to create jobs

and employment conditions that enable individual to achieve personal and professional development.

Yet, in a period of uncertainty, in which employees are attributed more and more responsibility for the development of their employability and for the outcomes of their career, they aren't often granted as much freedom as they would need to really be in control of their careers. In a normative approach, we advocate for the possibility for individuals to be put in the conditions to develop themselves and to shape their careers. In our view, it is fair and just to for people to have the opportunity to realize themselves, to deploy their talents and to make the choices that allow them to be satisfied with their careers. In this process, the responsibility should be shared with their employers. Indeed, they shouldn't be let alone in the process of maintaining their employability and develop their careers, but they should be put in the right conditions thanks to a sharing of responsibility by their organizations. Definitely, to be employable, individuals should be able to shape their working life in an autonomous and responsible way.

Hence, sustainable employability involves being able to work properly, performing well, and maintaining a good work-life balance and good health at work. Employees should be able to plan for their long term life and employment and developing the skills they might be in the future while in their job. In this sense, the possibility of training and development should come from the company itself, who should take care of the employees' training.

According to the concept of perceived employability (Bernston, 2008), it emerges that each individual has a different perception of their employability, chances to evolve, change job, and develop their career. This perception is influenced by the others' opinions, the present situation of the person, and the context as well. These perceptions, hence, can influence the mood and the way a person reflects about their future, when they might need to adapt to a new, different situation.

7. Job Design and Job Crafting: how does the work itself contribute to employability?

To understand how employability could be developed or damaged in the daily working life, it was important to focus on the theories about job design. The goal was to understand how designing jobs could improve or hinder the development of competencies or traits that help employees managing their employability. Focusing on understanding how could job design provide the right situation for employees to create a situation of sustainable employability, the concept of job crafting seemed the appropriate solution.

Job crafting is a concept that was first defined in the literature in 2001 by Amy Wrzesniewski and Jane Dutton, who described it as a set of proactive behaviours employees engage in, to modify their job, with the goal of making it more suitable to themselves.

The authors identified three modalities in which job crafting can be realised: task crafting, which consists in a modification of tasks, relational crafting, concerning how individual vary the relationships they have at work (with customers or colleagues for instance), and cognitive crafting - the change of perspective about one's job.

The literature of job crafting flourishes and another important perspective is developed by authors such as Arnold Bakker, Evangelia Demerouti, and Maria Tims, since 2010. This second perspective is based on the job demand-resource model, in which jobs characteristics are classified as demands or resources. Job crafting, in this perspective, consists in finding a good balance between job demands and job resources, to improve the stress management and prevent burnout.

Job crafting is an interesting phenomenon, and research shows its beneficial effects on workers, in terms of satisfaction, work engagement, performance, wellbeing. The positive outcomes are present for the company as well, since performances and employees' engagement improve.

Thus, job crafting allows people to adapt their job to themselves, choosing how to shape it according to their needs and qualities, but also the phases of life and career they are in. Employees can leverage on their talents and skills to improve and develop them further: by crafting their job, they can become a sort of modern homo faber in their work.

Being able to improve and develop their own skills as they believe is better for them, will help employees be and feel more employable, more in the condition to define their own career. Indeed, going beyond the boundaries of their current work, will help them define what their next job will look like.

Employers can be more or less aware of how employees engage in job crafting. According to the literature, promoting job crafting is beneficial for the organisations. Depending on the organisation's business, scope, and management style, job crafting can be perceived in a more or less positive way.

8. The main research questions

The concept of job crafting deserved some further studies with respect to the consequences in term of employability development for individuals. Indeed, many questions emerged regarding the modalities in which people could craft their job, but also on its effect, both in the long and in the short term, on the role of the organization in this process of job crafting.

In particular, job crafting could be linked to the problems around employability and its development. In this thesis, we are going to focus on these aspects. In fact, since employees proactively initiate a set of behaviours and feel entitled to do so, taking ownership for their job, could job crafting help them in improving both their present situation at work and their future employability?

In our research we aim at investigating the following research questions:

- *Can job crafting contribute to employees' personal and professional development? Could we build a bridge between job crafting and sustainable employability?*

- *Could sustainable employability be built in the everyday working life, finding satisfaction and meaning in the daily life, while planning for the long term? Hence, could job crafting contribute to the development of sustainable employability? And if so, how?*

These questionings revolve around the development of sustainable employability, through the mean of job crafting. The complexity and multidimensionality of the concept of sustainable employability makes it harder to tackle: indeed, it encompasses the whole working life of individuals, in a longitudinal dimension.

It is therefore necessary, to better grasp how sustainable employability can be developed in a collaboration between employer and employees, through job crafting, to articulate these general questions in smaller, more precise areas of investigations. The thesis is in fact articulated in three papers, which will explore the general theme in a more precise manner.

In the following paragraph, we will delineate the content of the dissertation, focusing in particular on the three papers.

9. Content of the dissertation

The dissertation is composed of several chapters: the second chapter will present a review of the academic literature on the topics of employability and sustainable employability, starting with tracing the evolutions of the concept. We will then present the evolutions of the concept, underlining the debates around the development of employability, between the approach favouring individual agency and those claiming for a higher involvement of both the employers and employees. We will discuss the model of sustainable employability, highlighting how this model includes different actors in a comprehensive approach. We will present the framework in details, highlighting the issues and the main evolutions of the model.

As mentioned before, the framework of sustainable employability emphasises the importance of lasting in the long term, of being able to work well, in healthy conditions, achieving important contributions through the work, and being engaged and satisfied through a variety of working experiences. To achieve this, the employee needs to be put in the right conditions by the organisation. According to the capability-based approach proposed by Amartya Sen, sustainable employability is achieved when it is possible to transform the employee's and workplace's resources into capabilities—that is, into the potential of realising value. It is personal and work conversion factors that allow for this conversion from input into capabilities. In this dissertation, we will focus on the work conversion factors—that is, the organisation of work.

Indeed, in our third chapter we will present a review of the literature of job design and job crafting. How to organise work has been a topic of discussion since the Tayloristic organisation, and various theories of job design have been developed over time with the aim of finding the best combination of efficiency and effectiveness for the organisation while also making sure that the job would make employees engaged and productive. We will explore them in our thesis and will focus in particular on job crafting. Job crafting designates a set of proactive behaviours that are spontaneously initiated by individuals to modify their own jobs. Employees change their jobs to make it more suitable for themselves, accentuating the features of the work they like the most, adapting the work relationships as it is more convenient to them, and changing the way they think about their job to find meaning in their activities. Job crafting has proven to have positive outcomes for both individuals and organisations, both in the short and long term.

In our fourth chapter, we will present the main research questions of the dissertation: in fact, we aim to understand to what extent job crafting can enable sustainable employability. Can job crafting be considered a means to achieve satisfaction, engagement, and valuable contributions through different jobs while maintaining health and wellbeing in the long run?

To explore this topic, our thesis is articulated in three papers: we will explain the research design and methodology in our third chapter too.

Our fifth, sixth, and seventh chapters will be dedicated to the three research papers.

The first paper, *The Shape of Hybrid Jobs*, co-authored with Prof. Martina Gianecchini and Prof. Paolo Gubitta from the University of Padova, Italy, contains a reflection about what makes an individual employable in a changing world of work. We explore the crucial competencies and their articulations that are required in various types of jobs. In particular, the study examines how individuals update their competencies to remain employable in light of the structural changes undergoing in job content due to the rapid advancement of technology. We contend that the literature stream on T-shaped professionals, which can be described using concepts from work design, is especially suitable to interpret the changes in jobs brought about by technological transformation because the new hybrid jobs in particular require a blending of various types of competencies (professional, soft, and digital). As a result, our research focused on identifying the types of occupations that are available on the labour market and assessing how they relate to the traits of both employees and organisations.

Second, the paper *Don't let me down! Job and career crafting for sustainable employability*, co-authored with Prof. Florent Noël, aims to understand how employees can build sustainable employability through job crafting in the short term and career crafting in the long term. We conducted a qualitative study among researchers, engineers, and technicians in a research laboratory in physics located in Paris, France. The main contributions focused on recognising that job crafting can be a viable strategy for achieving sustainable employability. Specifically, employees can change their jobs on their own initiative in the present to enhance their current well-being and satisfaction while also maintaining their long-term health, employability, and career opportunities. Employers who should be aware of the value people place on their long-term careers may find the examination of such tactics of interest. Additionally, it becomes clear how job crafting differs depending on the positions of the employees and how the relational aspect of the job becomes more significant as a result of the constant need to negotiate one's freedom of movement with the other employees.

The third paper, *We're all in this together! Job crafting and prosocial behaviours among low-skilled workers*, was authored by myself only. It focuses on low-skilled workers, who don't have a highly specialised set of competences; rather, they are employed in simple, repetitive, often precarious jobs. In a straining job, the problems are related to how to be in good health and engaged enough to carry on. Drawing on the theoretical frameworks of social regulation theory and job crafting, our investigation is therefore directed at exploring how the hard job demands of these types of work can be balanced thanks to job crafting. We also aim to explore the role of the organisation in maintaining the health of these workers. Our study was carried out with participant observation in the warehouse of a middle-sized firm in the Parisian region, in the industrial sector. Our analysis shows that job crafting is largely present and helps cope with stress, but it also brings some innovations to the work process. Job crafting is also useful to strengthen bonds among colleagues, and cohesiveness and prosocial behaviours even increase during tough periods. We also underline the role of the middle manager in determining the extent to which job crafting behaviours are present in the firm. We contribute to the theory of social regulation by showing that job crafting constitutes the basis for the emergence of autonomous regulation.

The eighth chapter of the dissertation will be dedicated to a general discussion, in which we will highlight the contributions of the thesis.

We will emphasize the contributions of each of the single papers and will draw insights on how sustainable employability can be created and developed in the daily working activities through job crafting. We will show how job crafting contributes to the improvement of individuals' satisfaction and well-being at the individual level and at the level of the team, and how it allows employees to be more engaged in the present situation of their work, but also in the long term planning of their career.

We will underline our contributions not only on the literature of sustainable employability and coupling it with the literature on job crafting, but also on how job crafting helps in creating meaning at work, allowing individuals to reappropriate of their job and to grow their competences. We will delineate a new approach for human resource management, in a more sustainable perspective. Finally, we will emphasize the methodology contributions brought by our studies.

In summary, our dissertation will be organized as follows:

- Part 1: How can Job Crafting Enhance Sustainable Employability: a literature review
  - Chapter 1. Theorizing Sustainable Employability: a literature review
  - Chapter 2. From job design to job crafting
  - Chapter 3. Research Questions and Research Design
- Part 2: Three Essays on Sustainable Employability development through Job Crafting
  - Paper 1. *The Shape of Hybrid jobs*
  - Paper 2. *Don't let me down! Job and career crafting for sustainable employability*
  - Paper 3. *We're all in this together! Job crafting and prosocial behaviours among low-skilled workers*
- Part 3: Discussion and conclusion

Part 1. How can Job Crafting enhance Sustainable Employability: A Literature Review

Chapter 1. Theorizing Sustainable Employability: a literature review

Chapter Overview

1. **Employability and Sustainable Employablity**

    1.1. A brief history of employability

    1.2. Employability and career: an intertwined literature

2. **Employability: various conceptualizations**

    2.1. From classical definitions to recent trends on employability

    2.2. Employability as a multi-actors' stake

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3. **A new conceptualization: sustainable employability**

    3.1. The capability-based approach

    3.2. A capability-based approach model of sustainable employability

    3.3. Various perspectives on sustainable employability

    3.4. A comprehensive framework on sustainable employability

    3.5. From sustainable employability to job design

In this chapter we will present a review of the literature on employability and sustainable employability.

We will start from a brief history of employability, to trace the origins of the concept and its evolution. We will them emphasize the various conceptualizations and trends around the concept of employability. We will underline the importance attributed to the individual agency in the development and maintain of employability, as well as the perspective of a dual, intertwined relationship between employers and employees in the development of employability.

Moreover, we will present the competence-based approach to employability, exploring the concept of competences and the issues of their development.

We will emphasize how employability, in a recent conceptualization, depends on the capabilities – that is, being in the conditions of achieving valuable outcomes thanks to favorable personal and context-related conditions.

We will then focus our attention on the theoretical framework of sustainable employability, which is based on the capabilities approach. We will examine the conceptualization of sustainable employability, as well as the development of the theoretical framework, opening up, in conclusion of the chapter, to the connection between sustainable employability and job design.

1. Employability and Sustainable Employability

1.1. A brief history of employability

Employability has gained significant attention from policymakers as it is seen as a means of achieving sustainable employment and career development (Van Harten et al., 2021) This is particularly relevant in times of uncertainty, and crisis, as noted by OECD (2022). The concept of employability has been studied across multiple disciplines, such as human resource management, career studies, and work and organizational psychology (Van Harten et al., 2021). Research on employability has seen rapid growth in recent years, as evidenced by the works of Van Harten and colleagues (2021) and Akkermans and Kubasch (2017), which is reflective of the ongoing discussions surrounding sustainable career development in the face of employment uncertainty (Van Harten et al., 2021). Throughout the years, various conceptualizations of employability have emerged, and the definition of the term has evolved, as we will discuss in the following sections.

The concept of "employability" has its origins in the late 19th and early 20th centuries (Gazier, 2011), when the distinction between those who were employed and the unemployed was first codified. Initially, the goal of this definition was to determine whether or not an individual was actively participating in the labour market. One of the earliest studies on employability was conducted by Feintuch in 1955, which emphasized the importance of including "difficult-to-place" workers in the job market, and of changing their attitudes towards work, as this could lower their possibilities of securing and maintaining employment. At that time, the focus was on increasing the skills, attitudes, and competences of employees, with the goal for employees being to be "as employable as possible" (Forrier and Sels, 2003, p. 104).

However, research on employability has changed in response to the evolving labour market and the shifting relationships between employers and employees (Fugate et al., 2021). According to Gazier (2011), the term "employability" has been used with a variety of meanings throughout the 20th century. Initially, from the beginning of the century until the 1950s, employability was seen as a binary concept, where a person was either employable or not employable: it was named "dichotomous employability" (Gazier, 2011). The main criteria for being employable were age (between 15 and 64 years), the absence of physical and mental impairments, and the absence of strong family constraints. This distinction was useful for providing social aid to the unemployed, while those who were employable in a situation of unemployment were first directed to public works and then to the labour market.

In the 1950s, there was a growing interest in the theme of employability, with the primary goal being "achieving full employment" (Forrier and Sels, 2003, p. 103). During that time, the economic prosperity and they dynamic labour market made it relatively easy to find a job. Encouraging disadvantaged or unemployed workers to participate in the labour market became increasingly important. Several definitions of employability were developed during this period (Gazier, 2011). One of these was "medico-social employability," a quantitative scale designed by medical professionals to assess the degree of employability of individuals with physical and mental impairments, in order to determine the best ways to improve their employability. Another was the "main-d'oeuvre policy employability," meant to assist unemployed individuals with social deficiencies in developing the skills required by the labour market. The overall goal was to increase the skills, attitudes, and competences of people, with the ultimate aim for workers to be "as 'employable' as possible" (Forrier and Sels, 2003, p.104).

During the 1960s, according to Gazier (2011), the understanding of employability moved towards a "flux employability". The point of view was collective, focusing on how fast a group of unemployed people could find a job, considering the situation in the labour market.

In sum, between the 1950s and 1970s, research on employability had a macro-perspective, with the goal of reaching full employment (Fugate et al., 2021; Feintuch, 1955; Forsyth & Mininger, 1966). The interventions were carried out at the national level, with the goal of upskilling for the disadvantaged workers, without focusing on the development of careers (Fugate et al., 2021). Indeed, at that time, careers were managed by the employers in a long-term perspective of the employment relationship.

In the 1980s and 1990s, the focus on employability shifted towards a more micro-perspective, with an emphasis on individual responsibility for one's own career development and employability (Van Harten et al., 2021; Inkson & Arthur, 2001; Arthur & Rousseau, 1996). Some transformations in the labour market, such as the growth of the service sector and the slowing growth of more traditional industries, together with a higher emphasis on flexibility and lifelong learning (Van Harten et al., 2021) contributed to a shift in perspective. Hence, the focus was on the development of transferable skills and the ability to adapt to changing job requirements, rather than on specific skills for a particular job (Van Harten et al., 2021). In this period, the concept of "portfolio careers" also emerged, reflecting the idea that individuals will collect a series of different working experiences in various companies throughout their working life (Arthur and Rousseau, 1996). More specifically, during the 1980s, organizations began to place a greater emphasis on flexibility, viewing employability as a tool for human resources management (Fugate et al., 2021; Forrier and Sels, 2003). At the same time, research on employability began to move its focus to the employer, to align the supply of talent in the labour market with the needs of organizations (Thjssen et al., 2008). Employability was defined as "performance in the labour market" (Gazier, 2011) including three main aspects: the probability of obtaining a job, its duration, and its salary. This indicator allowed for a retrospective evaluation of intervention policies, rather than establishing a link between individual attitudes, socio-political situations, and results in the labour market.

In the 1990s, employability became a significant concern not only for disadvantaged workers but for the entire active population. The main concerns included entering the labour market, maintaining a job, building a successful career working in several organizations through the years, and not any more in one organisation only. The focus shifted to both the internal and external labour markets, and individuals were held more responsible for maintaining and developing their employability (Forrier and Sels, 2003; Fugate et al., 2021). Researchers began

to examine the characteristics that made individuals employable and capable of navigating unstable careers, with a focus on acquiring competencies and assets that would enable them to thrive (Van Der Hejide and Van Der Hejiden, 2006; De Cuyper et al., 2012).

1.2. Employability and careers: two intertwined literatures

The literature on employability and the one on careers became more intertwined in this period. In fact, careers, intended as the series of working experiences individuals go through in the span of their professional life (Arthur et al., 1989), wasn't any more intended as being pursued in one organization only (De Vos et al., 2021). The concept of "one-life-one-career" (Sarason, 1977) was replaced to encompass a more dynamic and flexible approach. While in the 1980s, employability was seen as an HR instrument to increase the flexibility of employees (Forrier et Sels, 2003) and more attention was paid to matching the supply of talents in the labor market with the needs of organizations (Thjssen et al., 2008), in the 1990s the focus on employability shifted to the individual. In fact, employees were given more responsibility for maintaining and developing their employability in order to navigate unstable careers (Van Der Hejide and Van Der Hejiden, 2006; De Cuyper et al., 2011). The idea of "boundaryless career" (De Filippi and Arthur, 1994) or "protean career" (Hall, 2004) emerged, emphasizing the need for individuals to maintain themselves employable in the eyes of employers. These concepts reflect the assumption that the traditional career path is not an option any more (Mirvis et Hall, 1994; Hall, 2004): employability allows individuals to acquire the job they need in that moment of their career and determines the possibilities for future career transitions (De Vos et al., 2021; Van Der Hejide and Van Der Hejiden, 2006). As underlined by De Vos and colleagues (2021, p. 2), "lifetime employment has gradually been replaced by the notion of lifelong employability, lifelong learning and the transitions individuals make throughout their career have come to the forefront". Indeed, Gazier (2011) describes the underlying conception of employability as "initiative employability", which emphasizes that the individuals have the responsibility to manage their own career, making sure they can maintain themselves employable throughout their working life.

This shift towards lifelong employability and lifelong learning has resulted in a focus on the negotiation and multidimensional aspects of employability, highlighting the importance of individual initiative and entrepreneurial attitude (De Vos et al., 2021). Overall, employability can be understood as an individual's relative capability to obtain and maintain employment,

taking into account both personal characteristics and the context of the labour market. Thus, multidimensional approaches and negotiations in the labour market are important to promote. From the 1990s and the 2000s, the conceptualizations of employability were related to the need of employees to maintain competencies and skills to realize a satisfactory career in both the internal and external labour market (Van Der Hejide and Van Der Hejiden, 2006). However, placing all of the responsibility for employability solely on the shoulders of employees resulted in an undue emphasis on individual agency (Forrier et al., 2018). In response, scholars began to consider other factors, such as societal trends and employer responsibility, as crucial elements in the employability equation (Fugate et al., 2021). The sustainable employability paradigm, for example, acknowledges that employees must be able to adapt to changing circumstances, but also stresses the importance of involving employers as key stakeholders in the process (Van Der Klink et al. 2016; Fugate et al., 2021). The literature on employability includes various conceptualizations of employability, as we will delve deeper into in the next section.

2. Employability: various conceptualizations

2.1. From classical definitions to recent trends on employability

Employability has been conceived in numerous ways over time and by various writers. The perspectives differed throughout the macro, meso, and micro scales. First, at the macro level, society as a whole is considered; employability is viewed as a measure of the chances of obtaining full employment.

Second, the meso-level analyses the perspective of organisations: in order to accomplish their strategic objectives, businesses strive to maximise the potential of their people by matching supply and demand on the internal and external labour markets (Thijssen, Van Der Heijden and Rocco, 2008). Employability becomes significant in strategic human resource management because employers must recruit employable individuals and build with them the human capital and employability attributes that the firm requires to achieve its objectives (Fugate et al., 2021). Third, from the perspective of the individual, employability represented the prospect of obtaining a job or a career (Forrier and Sels, 2003). Employability comprises a dynamic interplay between firms – competing in a turbulent environment, people seeking rewarding employment, and a society seeking full employment (Fugate et al., 2021). Van Harten and colleagues (2021) note that the impression of employability is an "indicator of potential" (p. 145), which would assist individuals in thriving in the labour market. As it reflects an individual's potential on the labour market, Van Harten and colleagues (2021) believe that

assessing this potential along three axes might be useful. Thus, in their analysis of the literature, the authors identify three strands. First, potential in the labour market might be based on personal strengths that boost employability: these studies try to determine which abilities can raise a person's employability. Second, the potential in the labour market may be understood in terms of self-perceived employment opportunities as a self-assessment of the potential: they focus on self-perceived employability, which is viewed as a resource to assist individuals deal with work-related obligations (Van Harten et al., 2021). When employees feel they are employable, they believe they have the potential to succeed in the labour market.

Thirdly, the labour market's potential may be evaluated from the perspective of job changes. Indeed, actual employment transitions may be viewed as evidence of the actualization of the labour market's potential (Van Harten et al., 2021).

Thus, the academic literature on employability is plentiful but fragmented; focusing just on one aspect would be reductionist; an integrated approach is required (Van Harten et al., 2021; Fugate et al., 2021; Williams et al., 2016; Noël and Schmidt, 2022). Indeed, Van Harten and colleagues (2021) emphasise the necessity for a holistic approach to the study of employability: the authors claim that the three trends they have identified are related in a casual way. In fact, possessing personal strengths may make individuals marketable and cognizant of their potential and the options available on the labour market, which can lead to successful career changes (Van Harten et al., 2021).

2.1.1. Defining employability: several points of view

Forrier and Sels (2003) provided the following definition of employability: employability is "an individual's likelihood of finding a job on the internal and/or external labour market" (p. 106). The emphasis is on the necessity to be adaptable and mobile, to update and expand one's skills in order to remain attractive in the current job and while migrating to new positions (Forrier, Sels, and Stynen, 2009). In the present labour market, which is defined by globalisation and unpredictability, career paths are unpredictable, and employees are now accountable for their own professional development (Arthur and Rousseau, 1996).

Other definitions, however, take into account the changing external environment and the significance of finding purpose in one's work.

For instance, Fugate and his colleagues (2004) emphasise the necessity to adjust employee competencies to the demands of consumers and employers, taking into account that the needs of the current employer may differ from those of the future employer.

Others, such as Harvey (2001), emphasise the need to find meaning in their definition of employability. Indeed, Harvey (2001, p. 100), referring to the employability for students – and thus focusing on the transition from study to work – defines employability as "the graduate's ability to obtain a satisfying job."

As a summary, Table 1 includes important definitions of employability underlined by the literature.

Table 1. Definitions of employability in the scholarly literature

Authors	Definition
Hillage and Pollard, 1998, p. 2	Employability is the capability to move self-sufficiently within the labour market to realise potential through sustainable employment.
Lefresne, 1999, p. 465-466	The probability, for a given group, at a given time, of finding a job or emerging from unemployment.
Harvey, 2001, p. 100	The graduate's ability to obtain a satisfying job
Forrier and Sels, 2003, p. 106	An individual's likelihood of finding a job on the internal and/or external labour market
Fugate et al., 2004, p. 16	A form of work specific active adaptability that enables workers to identify and realize career opportunities.
Sanders and De Grip, 2004, p. 76	The capacity and the willingness to be and to remain attractive in the labour market, by anticipating changes in tasks and work environment and reacting to these changes in a proactive way.
Van Der Hejiden and Van Der Hejide, 2005, p. 143	The continuous fulfilment, acquiring, creating of work through the optimal use of competencies
Van Harten, 2016, p. 32	The extent to which an employee is able and willing to proactively work
Rothwell and Arnold, 2007, p. 25	The ability to keep the job one has or to get the job one desires
Fugate et al., 2021, p. 14	Being employable "enables to protect and ideally further enhance both positive career and non-career outcomes, often beyond the current employment connection
Bernston, 2008, p. 15	Employability refers to an individual's perception of his or her possibilities of getting new, equal, or better employment.
Van Der Klink et al., 2016, p. 74	Sustainable employability means that, throughout their working lives, workers can achieve tangible opportunities in the form of a set of capabilities. They also enjoy the necessary conditions that allow them to make a valuable contribution through their work, now and in the future, while safeguarding their health and welfare. This requires, on the one hand, a work context that facilitates this for them and on the other, the attitude and motivation to exploit these opportunities

Recent trends in the literature on employability, as previously stated, emphasise the importance of individual agency in the management of employability: the assumption underlying this perspective is that the worker is rational, able to identify the best career opportunities, and make the best decisions for himself. Indeed, the literature on careers puts the same emphasis on the individual's agency: the weight of attaining a rewarding career lies on the individual, who must explore the numerous career options available. Careers are therefore described as "boundaryless" (Arthur and Rousseau, 1996): individuals are able and eager to relocate, and there are no longer any physical or psychological borders within or outside the organisation. Thus, employees investigate the many prospects available to them, eager to choose the best ones. According to Hall, their careers are "protean." Individuals can subjectively define their own career success and value the flexibility to pick the job that best suits their ambitions and willingness to advance. Also, selections must be taken with discretion: Parker and colleagues (2009) argue that careers should be "intelligent": from the perspective of a permanent acquisition of competences and knowledge, it is essential to create a solid identity ("knowing why"), to know how to solve problems and acquire the specific competencies ("knowing how"), but also to create a network, a set of relationships that have the potential to help someone throughout his or her career, at any step ("knowing whom").

The emphasis on individual agency for the development and management of employability, as well as the emphasis on self-management of career, lessens the organization's role in career management for its employees.

To be able to tackle the unpredictability and lack of stability in career management, individuals must be able to support the growth of their abilities, be able to continue learning with a lifelong learning approach, and be proactive in determining which competencies they should develop. This is emphasised by Van Der Hejide and Van Der Heiden (2005), who describe employability as "the continuous fulfilment, acquiring, creating of work through the optimal use of competencies" (p. 143). Adopting a competence - based perspective on employability, they define competencies as the capacity to execute "a whole series of different tasks in a certain (occupational) domain, all of them performed well and in an integrated manner" (Van Der Hejide and Van Der Hejiden, 2006, p. 452). Indeed, they suggest that employability is the result of a combination of specific and general knowledge and skills, as well as some personal characteristics such as personality and attitudes. Employability is advantageous for both the

company and the individual as a result of continual learning and the development of skills. This can benefit the individual both now and in the future in terms of professional results and growth. The authors establish five employability dimensions: first is occupational expertise, which refers to the level of skill required for the position. Clearly, they claim, the higher this number is, the better it is for the person, his or her employability, and professional advancement opportunities. Second, they emphasise anticipation and optimization, which is the capacity to prepare for the next prospective employment in an effort to maximise career results. The emphasis is once again placed on the necessity for individuals to assume responsibility for their own career management, keeping in mind different labour market and industry scenarios: "career management will be optimised when fine-tuning is achieved between personal preferences and market developments" (Van Der Heijde and Van Der Heijden, 2006, p. 454). The third feature highlighted by the authors is personal flexibility, which is a passive adjustment to changes in the labour market or in their employment over which they have no influence. Indeed, the capacity to adapt positively to a variety of possible scenarios leads to the growth of employability and the achievement of excellent professional results. Other authors, like Fugate and colleagues (2004), recall the same notion and refer to it as "adaptability."

The fourth component of Van Der Heijde & Van Der Heijden's (2006) model is corporate sense, which consists of the necessity for workers to participate in various activities and networks inside the organisation in order to participate in the decision-making process and share the organization's goals.

The fifth component of the paradigm is balance, which is described as "compromising between opposing employers' interests as well as one's own opposing work, career, and private interests (employee) and between employers' and workers' interests" (Van Der Heijde and Van Der Heijden, 2006, pp. 455-456). In reality, the working life consists of a succession of obligations that employees must fulfil for their employers, who expect them to be engaged, adaptable, and capable of managing their careers independently. To successfully manage the work relationship while enhancing employability, it is vital to strike a balance between the job's requirements and the employee's interests.

The emphasis put by Van Der Hejide and Van Der Hejiden (2006), on the development of some type of competencies to make sure individuals can be and remain employable, recalls the importance of the management of one's competences to remain attractive in the labour market. According to Saint-Germes (2008), indeed, competences constitute individual resources that are essential to remain employable: competences can be physical (age, appearance, …), professional (experience, qualifications, …), psychological (personality), psychosociological

(professional identity), and sociological (network and culture). It is essential for employees to be careful in the development of a prism of competences, that are evaluated in a sort of individual portfolio to assess one's employability (Saint-Germes, 2008).

Employability is defined by Van Harten (2016) as "the extent to which an employee is able and willing to proactively work" (p. 32). In contrast, Rothwell and Arnold (2007) include the potential of change in their definition: for them, employability is "the ability to keep the job one has or to get the job one desires" (p. 25). To be able to work proactively, employees must possess the necessary abilities, competencies, and knowledge, as well as be sufficiently resilient to continue working effectively in a complex, changing environment. Additionally, being willing and able to work in the long run implies that employability enables individuals to prosper in the long run. Specifically, according to Van Harten (2016), the willingness to change is crucial.

In their comprehensive review of employability, Fugate and colleagues (2021) highlight a variety of study areas. One of them concerns the advantages of employability for individuals, highlighting how a higher level of independence and responsibility can result in a variety of opportunities for the employee. In reality, individuals with higher responsibilities are better equipped for a turbulent, competitive economy and can adapt to rapidly changing roles. Accordingly, they consider their careers as more successful from both an objective and subjective standpoint (Van Der Heijde and Van Der Heijden, 2006). Moreover, self-perceived employability is associated with a greater level of self-efficacy, which is crucial in the labour market (Bernston, 2008).

Indeed, employability is positively associated with work engagement and life satisfaction (De Cuyper et al., 2011); also, employable individuals are more likely to experience positive emotions throughout organisational change (Fugate and Kinicki, 2008). In conclusion, being employable "enables to protect and ideally further enhance both positive career and non-career outcomes, often beyond the current employment connection" (Fugate et al., 2021, p. 14).

2.2. Employability as a multi-actors' stake

2.2.1. Responsibilities in employability development: individuals, organizations, public powers

Even though a fair deal of responsibility for the development of employability is attributed to the employee, employability is not important only for the single individual. In fact, as already mentioned, Thjissen and colleagues (2008) claim that it addresses various actors: it can be considered as an indicator of full employment, useful for society and public powers. For

organizations, employability displays the equilibrium between demand and supply of work, while for the individual it focuses on the possibility of having a job.

De Grip and colleagues (2004) underline that employability comes from the willingness and capability of an employee to be attractive on the job market, being flexible and able to anticipate the changes in the tasks and expertise required. However, they also take into account the importance of the external environment, arguing that employability can't be only a result of the individual's efforts. Instead, it comes at the intersection of individual characteristics, evolution of the demands in the internal or external labour market, and managerial practices and public policies (De Grip at al., 2004). Therefore, employability can be determined by individual and contextual factors (Fugate et al., 2021).

First, individual characteristics include competences and knowledge acquired by the individual. They can be considered as the human, social, cultural, psychological capital that individuals can acquire, as Williams and colleagues underline (Williams et al., 2016). Focusing on the individual's feature too, Fugate and colleagues (2004) underline that employees should acquire knowledge, skills, abilities, and other characteristics (KSAOs) to remain employable. Thus, the individual factors that explain employability it is possible to include for example individual differences in terms of education, skills related to the job, or transferable skills (Wittekind, Raeder, and Grote, 2010), career competencies (Akkermans et al., 2013), and movement capital (Forrier and Sels, 2003).

Individuals certainly play an important role in developing their own employability: they bear the responsibility for that and are ready to invest in themselves. The initiatives taken by employees are a consequence of the importance given to the individual agency: they can potentially induce positive results for some people, whereas for others it can be difficult to bear such an important responsibility (Forrier et al., 2018).

Second, employability can be fostered by managerial practices and HRM policies: indeed, the organization of work, together with practices of training and development can entail a repartition of the responsibilities between employers and employees. In fact, opportunities for the development of competences provided by the organization can foster the development of competences and thus increase one's employability (Van Der Heijde and Van Der Heijden, 2006; Clarke et al., 2008). In such cases, the role of a transformational or supportive leadership can be essential, as it can provide employees with the opportunity to increase their employability (Van Der Heijde and Van Der Heijden, 2014).

Indeed, employability is relevant for the employer as well: it can represent at the same time a benefit and a risk. In fact, De Cuyper and De Witte (2011) discuss the employability paradox,

considering the employer's point of view. Investing in the development of employees can be advantageous for the employer, because this attracts the employees who are willing to invest in their competences and development: this doesn't only increase the employees' potential but also contributes to retain talents in the organization. However, investing in employees' development contributes at the same time to increase the opportunities for them in the external labour market, and therefore their willingness to turnover (Forrier, Verbruggen, De Cuyper, 2015; Nelissen, Forrier, Verbruggen, 2017). Indeed, the relationship between employability and turnover is complex, as it can depend on the context – for instance, Benson (2006), highlights the importance of promotions as a way to retain talents.

On this point, Grasser, Loufrani-Fedida, and Oiry (2020) remind the crucial role played by competence management in the development of employability: on the one hand, employees need to develop further competences to be employable, and make sure their passages in the labour market are without risk. On the other hand, employers value employees' competences. In fact, their development is critical for the organisation's competitiveness: "human capital is probably today more of an element of corporate competitiveness than it has ever been before" (Grasser, Loufrani-Fedida, Oiry, 2020, p. xvi).

Third, from the point of view of institutions and policymakers, employability can be a mean to reduce uncertainty and insecurity, when the environment is unstable and continuously evolving (Mc Quaid and Lindsay, 2005; Clarke, 2008). Public policies to develop employability are generally hard to implement, and their impact is evaluated in terms of overall employment rate, or the level of skills present in a country (Fugate et al., 2021).

Thus, if employability is the result of individual features, organization, and policies at the labour market level, the responsibility for its development can't be borne only by the individual, argues Clarke (2008). Indeed, in her definition of employability, she argues that "employability is an individual's relative potential to obtain and retain suitable employment within the current labour market context" (Clarke, 2008, p. 262).

Hence, factors that are independent of the employee are strongly involved. Consequently, although the agentic perspective has been dominant in the literature in the last decade, it is important to take into consideration the other factors (Noël and Schmidt, 2022). Indeed, various authors have been adopting a critical approach to the agentic perspective, as we illustrate following.

2.2.2. Critiques on an individual approach to employability

Fugate and his colleagues (2021) argue that the agentic perspective only takes into consideration the point of view of the employees. indeed, the authors claim for the need to surpass the distinction between the employees' and the employers' perspectives, and to focus instead on the employer-employee relationship. In fact, as reminded above, Thjissen et al. (2008) argue that such relationships involves several actors and that it could be considered as an indicator of full employment – benefitting society at large. From the point of view of the companies, employability constitutes a balance between the demand and the supply of labour. For individuals, instead, the focus is on the probability of finding a job.

De Grip and colleagues (2004) define employability as the individual's capacity of being attractive in the labour market: he or she needs to be adaptable and able to foresee changes in the job content and the knowledge required. However, they also give importance to the external environment, arguing that employability can't depend only on the individual's efforts. Instead, employability is the result of the intersection of human features, the needs of the internal and external labour market, managerial practices and public policies (De Grip et al., 2004). Employability is thus influenced by individual and external variables (Fugate et al., 2021).

First, individual traits can be the individual's skills and knowledge. Williams and colleagues point out that these constitute the personal, social, cultural, and psychological capital that individuals can gain (Williams et al., 2016). To remain employable, employees need to develop knowledge, skills, abilities and other characteristics (KSAOs), as underlined by Fugate and colleagues (2004). The authors also highlight the importance of focusing on the individual's features. The individual differences can be marked by distinctions in terms of education, transferable skills, job-related skills (Wittekind, Raeder, and Grote, 2010), career competencies (Akkermans, 2013), and movement capital (Forrier and Sels, 2003). The role of the individuals in developing their own employability is critical: they take the responsibility and invest in themselves. Indeed, agency turns out to be essential, with some disparities too: while some individuals have the potential to produce and excellent outcome by taking this responsibility, for others it might be hard to accept such an important onus (Forrier et al., 2018).

Second, employability might be increased by management practices and HRM policies – how work is structured, how training and development are organised can impact the sharing of responsibility between employers and employees. In reality, opportunities for the development of competencies provided by the organization can stimulate the development of skills and hence boost employability (Van Der Heijde and Van Der Heijden, 2006; Clarke et al., 2008).

In this case, a crucial role is played by a transformative or supportive leadership: this can help people foster their employability (Van Der Heijde and Van Der Heijden, 2014). Employability is important for the employer too, as it can be both an advantage and a risk. In fact, De Cuyper and De Witte (2011) focus on the problem of employability from the point of view of the employer. Investing in employee development can be advantageous for the employer: indeed, they can attract people who are willing to improve and grow. In this way, the employer can better exploit the employees' potential, but also retain them in the organisation. Nevertheless, investing in employee growth increases their opportunities on the external labour market and, thus, their propensity to leave (Forrier, Verbruggen, De Cuyper, 2015; Nelissen, Forrier, Verbruggen, 2017). Indeed, the link between employability and turnover is nuanced and context-dependent; for example, Benson (2006) emphasizes the important role of promotions as a means of retaining talent.

Third, for public powers and institutions, employability can be a way to reduce uncertainty and insecurity in an environment that is unpredictable and constantly changing (Mc Quaid and Lindsay, 2005; Clarke, 2008). It is usually hard to implement public policies to augment employability; moreover, their efficacy is hard to measure and assessed from the point of view of the overall employment rate or the level of the skills in a country (Fugate et al., 2021).

According to Clarke, employability results from individual characteristics, organisation activities and labour market policies: hence, the responsibility for its development can't be let only to the individual (Clarke, 2008). In fact, she defines employability as " an individual's relative potential to obtain and retain suitable employment within the current labour market context" (Clarke, 2008, p. 262).

Therefore, even aspects that are independent from the employee can have an important role: it is essential to address those aspects, despite the fact that the agentic perspective has been dominant in the literature of the past ten years or so. In fact, various authors have adopted a critical approach with respect to the agentic perspective, as we discuss following.

2.2.3 Employability: a dual relationship between employers and employees

As mentioned previously, beyond the agentic perspective on employability, another school of thought proposes a more inclusive viewpoint. Indeed, employability is viewed as the result of interactions among employees, employers, and the external environment (De Grip et al., 2004; Fugate et al., 2021). Due to the agentic viewpoint's singular emphasis on the individual's perspective, the employer's perspective has been neglected. However, "employees remain

embedded in an interdependent employment relationship, meaning their employability is not completely under their own control" (Fugate et al., 2021, p. 5).

Therefore, the subject of how to establish and sustain employability should be considered from both the employer's and the employee's perspectives (Fugate et al., 2021). Indeed, Fugate and colleagues (2021) argue for the importance of focusing on the relationship between the two parties, which is easily forgotten: "put plainly, employers and employees need each other to compete, survive, and thrive, which means both will need to be increasingly proactive, strategic, and collaborative to meet their respective and collective challenges" (Fugate et al., 2021, p. 5).

Employability is indeed the new security for employees in a context where careers are becoming increasingly unstable and require working for several organisations, but the perspective of employers cannot be overlooked either.

However, addressing both the employer's and employee's perspectives and insisting on their interdependence in research should be accomplished by engaging both parties in each study and recognising the unique characteristics of their interactions (Fugate et al., 2021).

2.2.4. The interdependence of employers and employees: avenues for a unification perspective?

Fugate and colleagues (2021) analyse in a deeper way the perspective on the integration of the employer-employee interdependencies: they introduce the Strategic Employability Architecture (SEA), which adapted from Lepak and Snell's human resource architecture (1999; 2002).

Lepak and Snell's model (2002) is based on two dimensions: employee's uniqueness – that is, how easy it is to find similar skills in the labour market, and the contribution to competitiveness – the potential impact on the goals of the organization. The model has the goal of assessing human capital and to help making decisions on the HR strategy. According to Lepak and Snell (2002), the combination of the two parameters generates a 2x2 matrix: it is possible to determine four types of employer-employee relationships, as well as various HR strategies and practices, thanks to the employment modes.

Fugate and colleagues (2021) modify and develop this model to explore employability from the perspective of the employer-employee relationship in a dynamic evolution through time, utilising the Social Exchange Theory as a foundation. Indeed, the authors emphasise that the

approach takes into account both company and employee objectives in terms of employability investments.

The mode then identifies other employability modes, beginning with the commitment employability mode. In this instance, employees' characteristics are very distinctive and contribute to the organization's goals. Employers respect such teamwork and are prepared to invest in these individuals since they are strategic for the business and aid in accomplishing its objectives. Initiatives are aimed at improving employee performance, engagement, and retention.

Employer incentives in this mode are designed to attract candidates with relevant strategic human capital, who will also benefit from investments in employability. In a balanced partnership, a relationship of reciprocal investment is built between the two parties by providing the employees with the tools to enhance the performance of the employers, while their commitment also grows, in a balanced relationship.

The second mode is the employee acquisition mode (Fugate et al., 2021). In this scenario, the employee's knowledge, skills, and characteristics (KSAOs) are relevant to the organization's competitiveness; nevertheless, these attributes are readily available on the market. In this situation, the business would prefer to hire someone with these talents rather than develop them internally. In this situation, the employee's investment in the employment relationship is greater than the employer's; thus, the employer might compensate by offering the employee opportunities to boost employability.

Third, is the contract employability mode: in this case, the employee's characteristics are neither unique on the labour market nor have a significant impact on the organization. In this scenario, the employer has no motivation to engage in employability, and the relationship is transactional or even dependent on contract requirements.

The fourth mode is the alliance employability mode, in which personnel have fairly distinguishable qualities in the labour market but make modest contributions to the company. In this instance, the investments made may not be ideal in terms of their contribution to the employee's employability development over time, which is consistent with reciprocal agreements between employers and employees. This may work, however, for a small subset of people with distinctive characteristics: even if their contribution is modest, their abilities are scarce on the labour market. Employability upgrades would allow people who choose to leave the organisation to do so, as the corporation would prefer to invest especially in them.

Fugate and colleagues (2021), discussing the new avenues for the research on employability, remind that there are two important tendencies that academics should try to mitigate instead of

intensify. The two are the trend for career self-management, which considers employability as the new security in the employment. The second is the trend of companies to invest in their employees' growth, as they perceive them as the source of sustainable competitive advantage. Table 2 summarizes, in several definitions of employability, the factors influencing it at different levels.

Table 2. Factors determining employability at the individual, organizational, institutional level

Individual	Organization	Institutions & society
Possibility of having a job (Thijssen et al., 2008)	Equilibrium between demand and supply of work (Thijssen et al., 2008)	Indicator of full employment (Thijssen et al., 2008)
The capability and willingness of workers to remain attractive for the labour market (supply factor) (De Grip et al., 2004)	Reaction to and anticipation of changes in tasks and work environment (demand factors) (De Grip et al., 2004)	Facilitation by the human resource development instruments available to them (institutions) (De Grip et al., 2004)
Individual factors (Fugate et al., 2021)	Contextual factors (Fugate et al., 2021)	Contextual factors (Fugate et al., 2021)
KSAO: Knowledge, Skills, and Other Abilities (Fugate et al., 2004)	Opportunities for development of competences (Van Der Hejide and Van Der Hejiden, 2006)	External factors: demand of work (labour market, macroeconomic situations, recruiting policies) + factors of help and facilitators (employment policiess etc) (Mc Quaid and Lindsay, 2005)
Education, skills related to the job, transferable skills (Wittekind et al., 2010)	Supportive leadership (Van Der Hejide and Van Der Hejiden, 2014)	A mean to reduce uncertainty and insecurity, in an unstable and evolving environment (Mc Quaid and Lindsay, 2005)
Career competencies (Akkermans et al., 2013)	Promotions to retain talents (Benson, 2006)	
Movement capital (Forrier and Sels, 2003)		
Individual haracteristics: employability features, demographic features, health and wellbeing, searching employment, adaptability and mobility + personal situation: personal and family situation, conception about work, access to resources (McQuaid and Lindsay, 2005)		

2.3 A competence-based approach to employability

2.3.1. What is a competence?

In the previous paragraphs, we repeatedly underlined the importance of competences in the development of employability, explaining how individuals should always make sure they are able to adapt and make their competences evolve. Indeed, Van Der Hejide and Van Der Hejiden (2006) discuss the importance of sustaining employability through "the optimal use of competencies". Individual competencies are certainly essential for individuals to maintain their employability, but the research on competences and especially the European tradition, describes competences as having collective and organizational dimensions too. Indeed, individual competences are embedded in an organization, they are developed with respect to the usage it is made within one specific organization. It is interesting therefore to focus on what competences are and the various approaches to their management with the goal of maintaining or developing employability.

First, it is important to distinguish the American and the French definition of competences. The seminal article on competences in human resource management is considered to be the one by McClelland in 1973, in which the author sets the theoretical foundation of competences. Competences are defined as the characteristics separating the best employees from the others. Spencer and Spencer (1993), instead, point out the distinction between the two dimensions of competences: the hard one, which can be learned and is more constructed, and the soft one, which is more similar to some personality trait hence innate. Lawler (1994) underlines the importance of the collective point of view con competences, while Pralahad and Hamel (1990) emphasize the relevance of the collective analysis. In Europe, instead, the vision of competences is different: more focused on emphasizing both the peculiarity of competences to the individuals and the job, and at the same time the embeddedness within the organizations. In this sense, competences can't be defined only from an individual point of view: rather, they can make sense only in the context of an organization (Défelix et al., 2006). Moreover, as pointed out by Gilbert (2006), the concept of competences is difficult to define, as it is a nomad concept: it acquires different meanings in the different "universes" in which it is used. The meaning of "competence" can vary according to the usage it has to serve, the nations in which such usage were developed, and the way in which various science of work have used it (Gilbert, 2016). Oiry (2016) point out that various actors (scholars, practitioners, consultant, …) uses a different definition of competence that depends on their origins, and the finality of the concept when they use it.

In fact, Défelix and colleagues (2006, p. 2) refer to competences as "a combination of resources that makes a person at work capable of carrying out tasks in a professional situation, in a precise context", underlining the peculiar aspect and the embeddedness within an organization. However, considering that being employable implies being able to find a job in the labour market, this requires developing transferable competences, that can be effectively deployed in other organizations (Guilbert et al., 2016). Zarifian's (1999) definition of competences in particularly interesting, as it includes two dimensions – an individual initiative and an individual responsibility: a competence is the "individual's initiative-taking and the taking responsibility on some problems and events in professional situations they encounter" (p. 82). Taking responsibility for a professional activity means making sure the activities are well carried on by the individual.

Dietrich and colleagues' (2010) notion of competence is based on the consideration that the various scientific approaches with respect to the concept of competence don't allow to delineate a clearcut, simple definition. Hence, the authors argue that it is simpler to define competences from the utility point of view, defining it as "a social construct, called competence, that defines people's capabilities, has a predictive nature, integrates various modalities that are identifiable and usable in different management contexts" (Dietrich et al., 2010, p. 9). They recall that the importance of competences comes from ergonomics, with the goal of better adapting competences to tasks and to adapt the tasks to the competences available. In ergonomics, competences are constituted of three "components": the knowledge to understand how something works, to be acquired with an initial training, the savoir-faire – being able to make something work, and the meta-knowledge – the management of knowledge generated by experience. In ergonomics, competences are finalized for a range of tasks, they are acquired by formal or informal training, they are organized in coordinated units, they are hypothetical – that, is, observable from the activities carried out (Dietrich et al., 2010).

It is interesting to notice that in the Tayloristic organization of work, the concept of competences was not necessary: in fact, the goal of the organization of work was to depersonalize work as much as possible, reducing the individual leeway and power to act, with the ultimate goal of separating the work from the workers (Baron, 2016). However, notices Baron (2016), around the 1980s, the work that really adds value is more and more collaborative, autonomous, relational: there is the need for a higher subjective engagement, coherent with the enhanced flexibility and uncertainty of the organization of work. In fact, to improve the performance and the engagement of workers, the management realizes that a more

individualized approach is necessary, to foster autonomy and proactivity: the concept of competences fits well with these needs (Baron, 2016).

2.3.2 Managing competences: different approaches

The management of competences can be defined as "a management system based on a philosophy (putting skills at the heart of the organization and the production of value), mobilizing a plurality of actors (HR services, local managers, employees), management tools (references of skills, annual appraisal interview) of practices (supervision, evaluation) in the transformation of work into performance. Such an operation does not go without constraint, one which requires employees to conform to behaviors defined as professional by the company, which they would not necessarily adopt if they were not forced to do so." (Dietrich and Pigeyre, 2016, p. 111). Thus, the concept of competence becomes the foundation of the management method of "flexibility" (Dietrich and Pigeyre, 2016).

According to Loufrani-Fedida and Saint-Germes (2013), individual competences encompass a knowledge dimension, an ability dimension, and a personal dimension (Loufrani-Fedida and Saint-Germes, 2013), and their pertinence and importance has been recognized as related to a particular context (Défelix et al., 2006). The notion of management of competences refers to the development of competences according to the exploration-exploitation framework proposed by March (1991) and managed according to the managerial practices of an organization (Dietrich, 2010), with the goal of nurturing them and avoid their obsolescence.

Dietrich and colleagues (2010) remind how the management of competences is based on an individualization of the work relationship, coming from the massive technological evolutions since the 1990s, the decline of the trade unionism and the conflict due to a severe employment crisis. Human resource management has, therefore, transformed to focus more on the individuals and the concept of competence promotes this development. While we have discussed extensively about employability, it is worth underlining that the management of competences is a topic that has interested ergonomics, sociology, education science. According to various authors, competences are essential in HRM (Pichault et al., 2000; Dietrich et al., 2010) and they constitute a new way for organization to manage human resources (Zarifian, 1999). Identifying the competences that are demanded for a certain job obliges an analysis of the work and its requirements: the skills framework is essential for another tool, the job description – if this covers a range of activities with a plurality of positions. But the tool is

necessary to assess the workers more than it is to assess the work itself (Dietich and Pigeyre, 2016).

From a practical perspective, Loufrani-Fedida and Saint-Germes refer to the GPEC (Gestion Prévisionnelle des Emplois et des Compétences), a disposition elaborated by the French government to make act in accordance with the idea of maintaining and developing employees' competences in a plan elaborated by the employer to make sure that employability is maintained for their collaborators. (The GPEC has in the meantime evolved towards another plan, called GEPP - Gestion de l'Emploi et des Parcours Professionnels).

According to the authors, the disposition could make the companies underestimate the necessity of anticipating issues to make employability effective. To be effective, a GPEC agreement should stipulate the development of an "enabling environment", that puts individuals in a position to act freely. To be "enabling," an environment should provide employees with the possibility of exploiting the resources available: a culture that promotes the maintainability of employability is therefore what is needed (Loufrani-Fedida and Saint-Germes, 2013). In this sense, the GPEC agreement should thus contain a clear repartition of the roles and responsibilities between employer and employee in maintaining employability.

Loufrani-Fedida and Saint-Germes (2013) argue that the employer is responsible for providing opportunities for the development of the employee's competences, and the employee has the duty to take advantage of such opportunities. Indeed, working in the firm helps the employee gain the competencies that make him or her employable, while the organisation can take advantage of his performance. Such a theoretical situation could be made real, argue the authors, with adequate preparation from both employers and employees (ibidem).

Human capital is an essential component of companies' competitive advantage and, as mentioned by Grasser, Loufrani-Fedida, Oiry (2020, p. xvi), "it is becoming essential to design competence-based human resource management which takes into account the importance of employee competences". Indeed, individual competences are critical for organizations' success, but constitute as well an important asset for employability. In fact, companies can achieve better performances from the point of view of efficiency and effectiveness, innovativeness, resilience, allowing to improve the organizational processes and managing change (Grasser et al., 2020).

2.3.3. A competence-based approach to employability

In the literature on the management of competences, argue Loufrani-Fedida and Saint-Germes (2013), employability is intended as an outcome, a desirable goal for the management of competence. However, argue the authors, the relationship between the concepts is more complex, and deserves attention: hence, Loufrani-Fedida and Saint-Germes (2013) investigate the relationship between competencies and employability, proposing a model for their integration. The authors focus on the interaction between the management of individual competences and employability, pointing out how, in the literature on employability, individual competences have been perceived as antecedents or dimensions of perceived employability. Also, they underline the distinction between the competences related to the job and the general abilities necessary to be employable. Thus, they argue that a complex interaction is present in the dialogue competences-employability: employability requires a dynamic point of view on jobs and professional trajectories, while there is a lack of clarity regarding the transferability of the potential competences (Loufrani-Fedida and Saint-Germes, 2013). The scholars propose three levels of analysis of the relationship between individual competences and employability: conceptual, practical, and critical. First, from a conceptual point of view, the authors argue that it is necessary to translate the framework of dynamic capabilities to the employability conceptualization. In this sense, individuals can maintain their employability by mobilising and promoting their skills. Hence, employability means being "able to evolve", a further competence (Loufrani-Fedida and Saint-Germes, 2013, p. 28).

Van Der Hejide and Van Der Hejiden (2006), as mentioned before, propose a competence-based approach to employability, arguing that "competence models are used to unify individual capabilities with organizational core competences" (p. 452) and indeed their definition of employability as a "continuous fulfilling, acquiring or creating of work through the optimal use of competencies" (p. 453) underlines the importance of constant evolution of individual competences, that are adapted to the organizational ones.

Vanhercke, De Cuyper, Peeters, and De Witte (2014) compare the approach of perceived employability, defined as "the individual's perceptions of his or her possibilities of obtaining and maintaining employment" (p. 594) to the competence approach to employability, characterized by the focus on the "individual's perception of his/her abilities, capacities and skills that promote employment opportunities" (p. 596), and the dispositional approach, which "focuses on the perception of one's proactive attitudes related to career and work in general" (p. 596). In terms of similarities, the three approaches are based on personal subjectivity,

evaluating respectively their position in the labour market, their employability skills, and their motivation (Vanhercke et al., 2014). Moreover, they consider various kinds of factors: personal, structural, and their interaction, and they consider both the internal and external labour market. In terms of differences, the perceived employability is mostly focused on groups at different career stages, or across groups, while the other approaches can include all the aspects at the same time (Vanhercke et al., 2014).

Saint-Germes (2020) emphasizes the importance of the competence-based approach to employability, which corresponds to an institutionalization of employability in the HR management. Competences constitute a crucial asset for employability: for employees, they are necessary to find a job; for employers, having access to specific competences increases their competitiveness (Saint-Germes, 2020; Ferrary, 2020). In this sense, employability is integrated in the human resource management themes, being at the frontier with HR, talent management, new career forms. Moreover, the concept of competences may allow to overcome the debates about the "duality: individual and collective employability" (Saint-Germes, 2020, p. 74), going beyond the distinctions and unifying the different visions.

From the individual point of view, employability consists in the employee's ability to promote their value and their competences in the labour market (Wittekind et al., 2010; De Vos et al., 2011). To be considered employable, as we mentioned earlier, individuals need not only to optimally deploy their competences (Van Der Hejide and Van Der Hejiden, 2006), but also to show proactivity, flexibility, ability to develop new competences (De Grip et al., 2004; Fugate et al., 2004; McQuaid and Lindsay, 2005).

Loufrani-Fedida and Saint-Germes (2015) propose in a qualitative study a theoretical framework that allows to reconcile the vision of employability and individual competences by evaluating employability from competences, which, argue the authors should be seen as complementary. Thus, the theoretical framework proposes a classification of employability and competences, according to two categories of attributes (static vs dynamic and individual vs organizational) and has the goal to provide a mean to couple the notion of employability with competences. Indeed, the evaluation of employability can be considered at the individual or organizational level and in a static or dynamic way. By crossing the two axes, four quality conventions of employability are identified (Saint-Germes, 2020): 1) biographical employability and owned competences, which is based on evaluating one's experience and results. Biographical employability is founded on the individual's human capital, that encompasses the initial and accumulated capital. This corresponds to the individual's owned competences, gained through work or not. In this case, competences are not easily transferable.

2) differential employability and recognized competences: the evaluation criteria is impersonal, based to standard competence frameworks; recognized competences indicate the fact that the rationale for this evaluation is based on classification, taking into consideration only the individuals filling in the criteria required by the company.

3) supported employability and required competences: to assess the demanded competences, interviews, observations or other practices are used, in an active approach to career management. In this case the individual employability is supported by the organizational dynamics.

4) projective employability and potential competences: many practices are present to ascribe potential in this case, including traditional, quantitative, synthetic methods. The projective employability convention is based on a proactive trait of personality, which encompasses flexibility, a learning attitude, the willingness to seek jobs and evolve. The goal is to assess the potential competences, which could be obtained by an individual in the future and their potential usage in the individual's professional path.

2.4 Employability as a matter of capabilities

2.4.1 From competences to capabilities: putting people in enabling conditions

The theme of competences allows to discuss an important aspect that is connected to the main, central theme of the dissertation – sustainable employability. The framework is based on the capability-based approach, which is proposed by the philosopher and economist Amartya Sen, who posits that people should be put in the condition to develop their capabilities – that is, having the potential for realization. To achieve the capability set, it is necessary for people to be able to convert their initial resources and the environmental resources into such capabilities, which can be done through personal and environmental (here we focus on organizational) factors.

Our perspective is based on understanding how the organization of work can help fostering such conversion and putting people in the conditions to realize something both the individuals and the company value through their work, but also how can individual act on their side to put themselves in a capability condition. It is therefore interesting to examine how one can evolve from a situation of competence to capabilities (Fernagu Oudet and Batal, 2016).

For the capabilities approach to be effective, it is necessary to develop a new "social design", according to Batal (2016): he advocates for a shared responsibility between the HR function and the managerial functions, to promote the development of competences. Such "social

design" should act on the working environment and on the relationship between the environment and the individual to make the realization of the activities easier for the employees (Batal, 2016, p. 289). The resources of the environment should, therefore, be designer so that individuals are willing to easily use them and invest in those – the same approach is proposed by Amartya Sen's capability approach (Batal, 2016).

Zimmermann (2016) advocates for a new, different logic in the personal development at work: she argues that the competence approach to the personal development should be designed from the point of view of the single individual who is going to play an active role in such development – and this design should depend both on his or her past experiences and expectations for the future. However, claims Zimmermann (2016), organizations don't actually tailor the development programs on the single individual, neither consider their needs or desires for the future. The concept for capability, depending on the individual's power to act and freedom, encompasses all the dimensions of people at work – their performances, experiences and competences, but also their needs in terms of dignity, justice, acknowledgement, personal and professional development (Zimmermann, 2016). Indeed, the capability model emphasizes three complementary dimensions (leeway of choice, power to act, and what's valuable for someone), thus providing the opportunity to plan in a joint manner for both the economic development of the firm and the personal development of individuals at work, in a co-construction approach (Zimmermann, 2016).

However, the capability-based approach underlines how, to pass from a situation of potential to a situation of real freedom, it is necessary to convert resources in valuable achievements for individuals (Sen, 2010). Indeed, the interest of this approach is the fact that people are not judged on the basis of the results of their actions, but to observe the process leading to such results (Fernagu Oudet, 2016). The approach integrates an analysis of "means and opportunities, of which individuals can benefit when they need to act" (Fernagu Oudet, 2016, p. 378). Some factors, both personal and environmental, determine this power of conversion and, as such, power of realization. Thus, for Sen (2000) the capabilities represent both the mean and the end to achieve the expansion of freedom for a person.

The distinction between capabilities and competences, underlines Zimmermann (2016), lies in the fact that capabilities are directed not only to the human development, which includes but goes beyond its economic finality. Hence, development entails the possibility for employees to have a say, to develop their professional career according to their finalities, to have the opportunities to express the choices they want to make, and the means to realize their goals. However, the organization should support all the employees and offer them the same

possibilities, in an idea of justice (Zimmermann, 2016). Individuals should learn to exploit and invest in these resources, to gain more autonomy and power to act, which is dependent on the opportunities coming from the environment and of the capabilities people have to choose (Fernagu Oudet, 2016). In fat, the results are dependent on the means and opportunities they have, which vary among various individuals (Zimmermann, 2011).

Fernagu Oudet (2016) focuses on the power to act and the capability to act, arguing that they are indissoluble concepts, since the capability to act is a resource used in the action. Indeed, the capacity to act is defined by Fernagu Oudet (2016, p. 376) as "what an individual is able to do in their different domains of activity the power to act as well as what is effectively possible for them to do, considering the concrete and singular characteristics of the situations in which they realize their work", thus focusing on the individuals' usual work environment. Instead, power to act is, for Fernagu Oudet (ibidem) "the possibility for individuals to have a handle on situations they encounter and to develop themselves thanks to them". Thus, power to act and the possibility for development can't be dissociated.

2.4.2. Putting people in the right conditions: creating an enabling environment

The capability-based approach can allow to analyse the environment by observing the set of constraints and opportunities in a determined environment: an enabling environment is the one that allows to develop the capabilities for the individual (Fernagu Oudet, 2016). Falzon (2005) has contributed to the development of the concept of enabling environment, through the lens of ergonomics. In particular, Falzon theorizes a constructive ergonomics, defining the enabling environment as one that allows people and the collectives to exploit their abilities in an efficient and effective way, without hindering them, but putting people in the conditions to develop new competences and knowledge, enlarging their possibility on their activities, how they perform them and how they control them. Hence, an enabling environment is one that favours continuous learning (Falzon, 2005). For Fernagu Oudet, an enabling environment "allows to the work to become enabling: a work that offers meaning, leeway, possibilities for development and learning, a work that allows to increase autonomy and power to act for all the actors, and authorises reflexives processes on the individual and collective activities" (Fernagu Oudet, 2016, p. 384). Autonomy, in this context, is intended as the ability to evaluate the decisions and to choose how to operate and how to experience new things. Fernagu Oudet (2012) considers the enabling environment as the one favouring the individuals' power to act: thus, an enabling environment allows to increase autonomy and, consequently, capabilities (Fernagu

Oudet, 2012, 2016). Fernagu Oudet (2012) argues that an enabling environment should contribute to the individual development by acting on the content of work (letting them vary their activities, changing the way in which they handle some situations), on the organization of work (rotating, working on groups, …), on the human resource management (providing access to learning opportunities or to the internal labour market). Vidal-Gomel and Delgoulet (2016), add some criteria to the conceptualization of enabling environment, arguing that such an environment should have some peculiar traits: first, it shouldn't be detrimental to the individual and the conservation of their future capability to act; second, it should be universal, considering the differences among individuals and compensate for deficiencies; third, it should promote development, favouring the acquisition of new competences, the enlargement of the possibilities to act and of the control on the task. Such features are also shared in ergonomics, although they remain implicit for a while (Falzon, 2013).

Creating enabling environment – that is, helping people determine and exploit their resources and not just putting them at their disposal – can put people in the conditions to develop their autonomy. To promote an enabling environment, it is necessary to act on the learning process: hence, the analysis of the work conversion factors allows to shed light on these aspects, showing what can promote more or less the learning process (Fernagu Oudet, 2016).

Zimmermann (2008) highlights the importance of such approach in the realization of value, by putting people in the effective condition of choosing freely. This implies the necessity of providing people with access to the resources and with the possibility to effectively realize them: the latter is the role of conversion factors, as already mentioned. Moreover, argues Zimmermann (2008), three further dimensions have an important role in determining the effective capability to act of the individual, being the concrete expression: opportunities, processes and value realization. Such dimensions have really concrete applications in the capability of acting, as underlined by Subramanian and Zimmermann (2017).

As for the opportunities, organizations should consider the possibility for employees to have access to resources and development, while processes refer to the effective procedures and choices that are put in practice in order to choose and realize what is effectively implemented for the employees. Realization of value, instead, is linked to the possibility for workers to have access to development opportunities that are directed not only to the interest of the company but to themselves as well. Hence, argue Véro et Zimmermann (2018), the way in which the three dimensions are expressed are strictly related to the organizational features, but also to the types of policy of the organization. Drawing from Falzon's (2013) notion of "capability-enhancing environment" as the one which doesn't have any detrimental effects on the

individuals, but rather aims at fostering their autonomy, competences and knowledge, Véro and Zimmermann attribute such features to the organization, which they consider both as an "organizational structure" and as "a system of interaction among people": it is a "structuring entity that can be understood about thanks to plans and processes giving it shape" (Véro and Zimmermann, 2018, p. 142). The authors underline the fact that the problematization of the capability to act from the point of view of the organization has to be regarded as a multilevel approach, both at the internal and external level: it has to consider not only the organization's point of view, but also the individual development and the institutional framework in which the firm acts.

Therefore, argue Zimmermann and Véro, the need emerges for a capability-enhancing organization – as already mentioned by studies in ergonomics – emphasizing the socio-economic perspective that focuses especially on the need of justice and professional and personal development.

The capability-enhancing organization, as individuated by the authors, is characterized by five traits: pluralist, participatory, fostering development, justice and responsibility.

First, a pluralist organization acknowledges the different finalities people give value to, directed towards objectives that can be different. Second, a participatory organization is the one which provides occasions and chances to meet, confront, exchange about the different finalities and how to put them in practice, solving therefore three functions: an intrinsic function – the possibility to express herself for each person, an instrumental function – that enhances and highlights people's expectations and needs to be heard, and a constructive function, allowing to learn from each other (Véro and Zimmermann, 2018). Third, a developing organization highlights the existence of opportunities and of the possibility to realize them: capabilities are the mean and the end of the development. Fourth, a fair organization is founded on the idea of justice as the freedom to act, and has therefore the aim to guarantee to everyone equal access to resources, opportunities and deliberation space. Fifth, a responsible organization is the one that considers not only the economic and legal aspects, but considers as well a social dimension, the latter including the development of the capability to act for the employees: some responsible management practices are required, focusing on the human being as a finality and not as a mean for the economic activity.

3. A new conceptualization: sustainable employability

Another perspective on employability is the concept of sustainable employability, whose theoretical and philosophical grounds are derived from Amartya Sen's capabilities approach. This concept arose from the rejection of the notion that people are entirely responsible for their employability development. In fact, the concept of sustainable employability continues to emphasise individual accountability, but also acknowledges the organization's role in developing and sustaining the individual throughout his or her career.

Considering a fundamental definition of sustainable employment, Fleuren and colleagues (2020) remind us that the two terms may be analysed separately. As discussed earlier, employability can be defined as "one's ability to identify and realise career opportunities" (Fugate et al., 2004, p. 23) or as "the capacity and willingness of workers to remain attractive for the labour market" (Fugate et al., 2004, p. (De Grip et al., 2004, p. 216). Basically, argue Fleuren and colleagues, it may be viewed as a person's "capacity to function at work, but also on the labour market" (Fleuren et al., 2020, p. 2). Second, the word "sustainable" applied to employability indicates its potential to endure over time: employability grows through time, throughout the working life of an individual. Therefore, sustainable employability is fundamentally a longitudinal construct (Fleuren et al., 2020), in which the need for long-term success in the workplace is emphasised.

In response to the trend of an ageing population, it is necessary for individuals to perform successfully in the labour market over an extended period of time. As a result, people remain in the labour force longer in age and must maintain their physical and mental health to continue working. Linked to the problem of ageing in the workplace is the issue of the inclusion of people with disabilities in the workplace; thus, the labour market has to be more inclusive.

Within the context of sustainable employability, health is regarded as a resource that should be preserved and not harmed on the job. Consequently, from the standpoint of occupational health, it is crucial for employers to advise employees on how to attain vital values and objectives: this may contribute to health at work and sustainability (Fleuren et al., 2016).

Work is no longer only a means of securing an income; rather, income is one of multiple personal and societal objectives that individuals pursue in the context of their work. The burdens and obligations that the majority of people must carry are mostly mental: for them, labour is no longer a necessary evil to provide for one's survival under harsh conditions that might be hazardous to one's health. In contrast, labour is viewed as a means to achieve personal

and societal objectives: values are essential not just for work, but also for employment and employability (Fleuren et al. 2016).

Employees strive to get and maintain a job that is beneficial for them and respected by their workplace; in this situation, work and employability can be deemed sustainable (Fleuren et al., 2016).

Van Der Klink and colleagues presented the predominant paradigm for sustainable employment (2016), built on a theoretical foundation that is derived from Amartya Sen's capability approach, which we show below.

3.1. The capability-based approach

Amartya Sen proposes the capability approach as a philosophical, theoretical framework that – being flexible and multipurpose – enables applications in various fields, such as the assessment of individual well-being, the evaluation of social arrangements, the design of policy proposals about social change, and the prioritisation of the beings and needs of some individuals. It is a normative theory founded on the idea that the freedom to attain well-being is a factor of primary moral weight, and that it is to be evaluated in terms of capabilities – that is, the tangible opportunity for a person to do and be what they deem significant. Thus, the capability approach aims to broaden the freedom and range of possibilities for disadvantaged individuals. According to Sen, the amelioration of living standards is a crucial objective, if not the primary objective, of the whole economic endeavour. This improvement is an inseparable component of the notion of development (Sen, 1988).

According to Alkire (2005, p. 118), the capability approach consists of "two parts: the valuable beings and doings (functionings) and freedom" or capabilities, such as the possibility to be healthy, educated, or participate in the political process. Consequently, capabilities are what matters to assess well-being.

Instead, Sen defines functionings as a range of activities or attributes someone values doing or being (Sen, 1999), so shifting the emphasis away from evaluating well-being as utility. In fact, "beings and doings" refers to the human actions a person engages in in relation to her qualities, or, in other words, "the very different activities and situations people recognise to be important" (Alkire, 2005, p. 119). The functionings of a person are crucial to his or her well-being, since they describe people's lives as real and human lives; as such, they are central to understanding human beings. These include, but are not limited to, the ability to live a long and healthy life, to be well-nourished, to have access to education, to have freedom of choice, self-respect, and

to enjoy the company of others. These functionings are valued in and of themselves, as opposed to being merely means to an aim.

On the other hand, capabilities or freedom refer to the real opportunities a person has to pursue valuable functionings, or the numerous sorts of activities and states that contribute to the individual's well-being. According to Sen, capabilities refer to the diverse range of functions, both in terms of actions and states of being, that an individual is capable of accomplishing. The concept of capability refers to an assemblage of functionings that indicate an individual's liberty to pursue a particular way of life or opt for diverse lifestyles (Sen, 1992). According to Alkire (2005, p. 121) capability is "a set of real opportunities that you could use in one way or another, the paths that lie open before you".

In this respect, functions and capacities must be viewed holistically as a collection or mixture of a person's possible functionings: Alkire (2005) reminds us that while evaluating social structures, the degree of freedom people have to pursue the activities or states they value must be considered. In light of the fact that what a person is able to do may be constrained by certain constraints or limitations in his or her options, the well-being gained should be evaluated in relation to one's capabilities, since the functionings depend on them.

Sen (1992) defines freedom as the opportunity for an individual to select his life and living environment while simultaneously achieving his goals. In addition, the author equates capabilities with freedom, as the latter are the manifestation of an individual's freedom in terms of being and doing. Consequently, a person's capabilities represent his or her ability to achieve goals that are important to them, taking into account both internal and external factors.

Sen's model for the capability-based approach can lead to variable results, according to the individual's preferences and choices: Fernagu Oudet (2016) underlines that individuals in the same conditions at the beginning could develop different capabilities, having access to various opportunities. In fact, the conversion of resources in capabilities can happen or not, and the decisions ("decision factor") can vary according to the preference for some choices of accomplishment.

However, being capable of accomplishing anything is separate from the idea of capacity. In reality, as noted by Van Der Klink (2016) as well, one might be able to reach a desired objective, but the potential to successfully do so is determined both by the opportunity they are given, and the facilitation received. In other words, the attainment of an outcome is governed not just by an individual's personal characteristics, but also by his or her relationship with the external environment. The individual, in reality, has to be put in the condition to attain their

objectives: such conditions are specific to the context and can vary considerably between individuals and societies.

Moreover, an important distinction in the capability-based approach is the one between means and ends: this framework considers the perspective of reaching the "end" – that is, on whether or not people have the ability to convert means into opportunities (capabilities) and effective outcomes, arguing that these represent what is truly important for the well-being. Also, this type of evaluation has two advantages: on the one hand, it allows the means to be evaluated instrumentally rather than as an end; on the other hand, evaluating the aims (the outcome) first enables one to ask which methods are most necessary for achieving the ends more efficiently. Besides capabilities and functionings, the conversion factors are vital too: they consist of the degree in which a person can transform a resource into a functioning. They mediate the relationship between resources and functionings. Three types of conversion factors are identified: first, personal conversion factors, which are strictly related to the single individual, both in a physical and intellectual way; second, social conversion factors – that is, they come from society, including policies and norms, power relationships, practises; third, environmental conversion factors – related to the conditions of the external environment.

3.2.   A capability-based approach model of sustainable employability

The capability approach is at the foundation of Van Der Klink and colleagues' theoretical paradigm for sustainable employability (2016). The key tenet of the model is that the capability-based approach (CA) is the foundation for sustainable employability (SE): other models do not place as much focus on other work-related characteristics. Instead, Sen's CA contains an emphasis on values, and the complexity of the SE construct reflects this.

It is essential to understand what value means to individuals and whether they are able to realise these aspects to sustain SE. According to Van Der Klink and colleagues, an individual's SE is shaped by his or her ability to convert resources into capabilities, and then into work functioning, in order to satisfy values such as security, recognition, and meaning (Van der Klink et al., 2016, pp. 71-72).

Despite the model's complexity and inclusion of various components, it is capable of grasping the complexities of current work and the value-related aspects of labour. In fact, at least in the Western world, individuals pursue significant objectives and beliefs alongside income security. Thus, the CA, according to Van Der Klink and colleagues (2016), simultaneously produces value for the business and the workers: it is consequently difficult to assess what individuals

give value to and to verify that they are able and enabled. Therefore, the SE framework places a focus on value and, more specifically, what is valuable for the individual, which is vital for employees who seek more than a bare income, but who wish to achieve worthwhile goals in their working lives. In reality, the CA asserts that "individuals should have the capabilities to conceive, pursue, revise their life plans" in accordance with their willingness (Van Der Klink et al., 2016).

3.2.1. Three elements of the model

The model is composed of three elements: first, the concept of functionings – "the beings and doings that people have reason to value" (Sen, 1992, p. 40) – indicates that people might have distinct sets of preferences. The model blends functionings with the concept of capabilities – defined as "the various combinations of what s/he can do or be" (Van Der Klink et al., 2016, p. 73) according to the circumstances – and freedom. Freedom is defined as the possibility to shape one's life and living style (which is viewed as a process) and the chance to attain one's objectives. When freedom and capabilities are present, one is able to be and do whatever they want. Since functions can be constrained, Sen (1992) argues that we should evaluate a person's life based on their capabilities; to do so, we must examine not just what individuals do, but also what they are capable of.

Van Der Klink and colleagues (2016) explain that a person's capabilities are the opportunity they have to achieve valuable outcomes, in accordance with their personal characteristics as well as the conditions of their external environment, which influence the likelihood of their effectively realising their potential. Therefore, it is required not only to be capable of accomplishing something valuable, but also to be enabled - that is, to be provided the conditions to do so. Thus, capabilities consist of the "combination of the various meanings of can" (Van Der Klink et al., 2016, p. 74) – which includes "being able to," "having opportunities," and "interaction with the context" – so that it "enables the person to use the personal resources and capacities to realise opportunities" (p. 74). In addition, as Alkire (2005) emphasises, capacities encompass a variety of resources: personal and material resources (including both ownership and access), which may be found in a physical and social context.

According to Van Der Klink and colleagues (2016), an individual must be able to work and motivated to work in the workplace. Therefore, the environment must enable the employee to accomplish duties that contribute to the organization's useful job. This allows for the achievement of significant job outputs.

Therefore, sustainable employability is defined as "the likelihood that, throughout their working lives, workers can realise concrete opportunities in the form of a set of skills" (Van Der Klink et al., 2016, p. 74). However, as previously said, capabilities alone are insufficient; workers must also "enjoy the necessary conditions that allow them to make a valuable contribution through their work, now and in the future, while safeguarding their health and welfare" (p. 74). To do this, it is necessary to have "a work context that facilitates this for them and on the other, the attitude and motivation to exploit these opportunities" (p. 74).

As can be seen, the availability of a set of tangible opportunities to attain and maintain functioning at work is crucial to the definition. In addition, the concept emphasises the necessity for personal and environmental (in this case, work) circumstances in order to transform capabilities into functionings. The authors emphasise the need for an organisation to put people in a position to effectively convert the personal input they can bring to their work into valuable work, as evidenced by Alkire as well (2005). Alkire (2005) also argues that problems arise due to the fact that in order for people to realise their goals, they need the opportunities and to be actually allowed to attain their purposes.

The model provided by Van Der Klink and other researchers (2016) explains how it is possible for an individual to transform inputs into opportunities for attaining meaningful results. The Capability set occupies the central position because it represents the "set of tangible opportunities that can be used to achieve valuable functionings." Three conditions must be fulfilled for them to be considered (work) capabilities: they must "represent an important value for this person in his/her particular work situation" (p. 74), the person must be enabled by the work context she is immersed in, and he or she must have the ability to achieve the value. Consequently, a collection of work capabilities requires both inputs and conversion factors.

Inputs consist of the initial resources, and they pertain to both the personal and occupational spheres. In the model, there are conversion factors between inputs and capabilities; these are the elements that transform inputs into a set of capabilities that give the opportunity to obtain important functionings. On the model's right side are the real operations that correlate to the task. In fact, valuable functionings are chosen as a result of an individual's behaviour within the context in which he or she is embedded. According to the authors, "the environment plays an integral role in determining the achievement of functionings by influencing aspects such as choice, preference and importance" (p. 75). As previously indicated by Sen, it becomes important to shift away from the strictly individual moves, as they may be influenced by environmental conditions, and instead analyse the individual capabilities, or "what individuals are capable to do or to be." Therefore, well-being is related to both individual accomplishments

and "the options which he/she has had the opportunity to choose from" (p. 75): in fact, the authors underline the importance of "contextual factors" because they "influence inputs, conversion factors, and decisions or choice, according to which capabilities are achieved in actual working functionings" (p. 75). Therefore, the contextual circumstances limit the number of possibilities available to individuals.

Consequently, the proposed model takes into account as inputs the methods to realise important objectives, namely work or personal inputs. Then, work and personal conversion factors — that is, the opportunity to convert inputs into tangible opportunities – enable the pursuit of beneficial work functionings. Contextual variables impact inputs, conversion factors, decisions, and/or choice, hence the outcome is the product of "constrained choice." Thus, according to Van Der Klink and colleagues (2016), individuals may attain sustained employability more easily "if their work does not merely represent a means to earn a living but if it can also be demonstrated to be intrinsically valuable." Consequently, a "value deliberation" must take place in the workplace, shifting "from a subjective well-being to what workers are objectively capable of" and "from resources alone to an emphasis on resources and conversion factors" (Van Der Klink et al., 2016, pp.76-77). In this context, questions arise regarding how to put people in the conditions to achieve their goals and wellbeing in their working life. In an organisation, people must be able to make their own decisions, and the organisation must be efficient: sustainable employability is the outcome of a lengthy, ongoing process that depends on both the individual and the environment. Organizations are able to give people with the resources they need to accomplish their desired outcomes by creating the appropriate circumstances.

Figure 1. Van Der Klink et al.'s (2016) model of sustainable employability
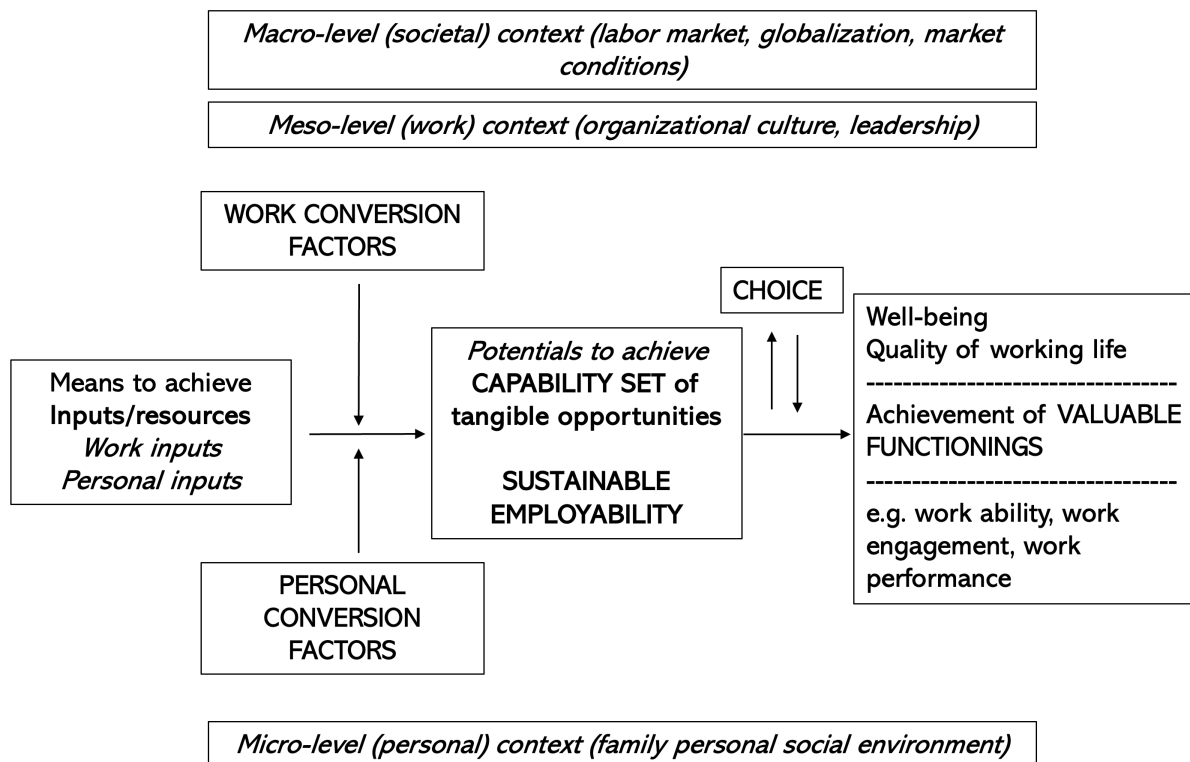
The model also distinguishes three different layers in the external environment, which can put constraints on the individual's choices and possibilities in different ways: first, at the micro-level, the external environment involves the personal, family, and social context the individual is embedded in. Second, at the meso-level, the work context is influenced by the organisational culture and the leadership style; this can leave more or less freedom to individuals, increasing or decreasing the possibility of choices and the opportunity to convert input into capabilities. Third, the macro-level, or societal context, can limit or open up the possibilities for an individual, depending on the conditions of the labour market, globalization, and market conditions in general.

The model proposed by Van Der Klink and colleagues (2016) represents the process of how sustainable employability can be sustained and shows the influence of both individual and contextual factors. The central aspect of continuing research on this basis is to operationalize the model, determining whether an individual possesses a capability set that allows them to pursue valuable functions at work. Abma and colleagues (2016) developed and validated a questionnaire to measure work capabilities based on this approach to sustainable employability. To assess the validity of the model proposed by Van Der Klink et al. (2016), a qualitative approach directed at determining what people value in their work was used. From this, the

authors could identify the most important aspects people value at work: namely, the use of their knowledge and skills, the development of those, being involved in important decisions, the possibility of building and maintaining meaningful contacts at work, setting their own goals, having a good income, and contributing to something valuable.

All in all, the model proposed by Van Der Klink and colleagues (2016) represents the first thorough model for sustainable employability. The emphasis is on the fact that to build employees' sustainable employability, individuals don't just need to earn their means of living but to consider their work valuable per se. For this, value deliberation has to take place in the workplace. Therefore, the focus isn't any more on subjective well-being but on what individuals are capable of, and what the worker can achieve. Also, the focus isn't just on the inputs or resources but on the conversion factor—that is, the possibility to actually exploit these resources. When the focus shifts on these aspects, therefore, other criteria should be considered than the mere economic aspects (Van Der Klink et al., 2016). In fact, the model suggests how to expand the capabilities of the worker to increase the possibilities of creating sustainable employability. At the meso-level, the model helps identify the situations in which the capability set is restricted and how to put all the employees in the best possible conditions to perform. Thus, the model illustrates how complex the interactions between individuals and their work context are. The interventions, therefore, should be tailored to the single individual; however, the responsibility is on both individuals and the organisation. On the one hand, individuals should be proactive and take initiative, while the organisation should enable them to realise their valuable functionings through their capability set (Van Der Klink et al., 2016).

3.2.2. A first operationalization: the capability set for SE

As mentioned by the authors, the operationalization of the sustainable employability model was started by defining and testing the validity of a work capability set, as proposed by Abma and colleagues (2016). The authors begin with Van Der Klink et al.'s (2016) definition, which they argue contradicts the common understanding of work. The framework of sustainable employability aims at defining what is important and valuable for people in a certain work context and at determining whether people are able and enabled to realise this. Thus, work in our society should add value, contribute to health (and not endanger it), and be sustainable, able to last over time. Starting from these considerations, Abma and colleagues (2016) define the "capability set for work": they aim at measuring the work capabilities on the basis of Sen's approach—they measure the capability set through a questionnaire and validate it through

hypothesis testing. Thus, they define seven capability aspects at work, namely: the use of knowledge and skills and their development; the involvement in important decisions; building and maintaining meaningful contacts at work; setting their own goals; having a good income, and contributing to something useful. The main hypothesis of the study is that "a comprehensive set of work capabilities results in better work outcomes" (Abma et al., 2016, p. 36). The work outcomes included in the study are work functioning, work performance, work ability, lower sickness absence, and an increase in the hours worked and years worked. Value at work is essential for people; when they can't get value out of the work, they feel a lack of coherence between value, the possibility of being enabled, and the outcomes that can be realised at work. Abma and colleagues (2016) hypothesise that if the capability set is larger, their sustainable employability is better and easier to reach and maintain. In contrast, if people are unable to obtain what they value through their work, they will experience a lack of coherence between what they value and what they can achieve at work, posing a risk to their long-term employability. Abma and colleagues focused on what gives value to work for individuals to determine which is the set of capabilities, which is consistent with Sen's argument that "the capabilities should not be determined by theorists, but by explicitly engaging the persons involved in the particular context" (Abma et al., 2016, p. 35). The seven capabilities that emerged thanks to the qualitative and quantitative study by Abma and colleagues (2016) seem to be a valid instrument to measure the employees' capability set.

3.3. Various perspectives on sustainable employability

On sustainable employability, the model of Van Der Klink et al. (2016) is the most well-known and linear, although other writers have provided other perspectives. Sustainable employability is defined by Van Harten (2016) as "the extent to which an employee is able and willing to productively work throughout his career." In her doctoral dissertation, she focuses on the promotion of sustainable employability through employer support. Indeed, Van Harten (2016) suggests that employers should invest more in the long-term employability of their employees. Van Harten begins with the definition of employability provided by Forrier and Sels (2003, p. 106): "a person's likelihood of obtaining a job on the internal and/or external labour market." She claims that although the employee is responsible for the creation and maintenance of employability, the employer should, in exchange for the employee's efforts, provide the reinforcement and the means to enhance (sustainable) employability. Such a claim is consistent with Schaufeli's (2011) argument: he contends that companies have a responsibility to boost

workers' sustainable employability by creating circumstances that enable the employee to grow his or her talents, skills, and knowledge. According to Schaufeli (2011), sustainable employability is a contextual concept: it is not only an individual's trait, but it can also be ascribed to the individual's interaction with his employment. In fact, according to Van Der Klink and colleagues' (2016) conception, employees' employability can only be regarded sustainable if the business allows them to grow their skills. According to Van Harten (2016), this may be accomplished through the employer's commitment in two key areas: developing jobs that are resourceful and difficult and focusing on management assistance.

First, in order to promote sustainable employability, jobs should provide individuals with meaningful experiences that allows them to develop their skills and proficiency. This may be accomplished by designing jobs with characteristics that make them both resourceful and challenging: employment should provide autonomy, task variety, and the appropriate level of workload to allow individuals develop their skills (Hackman and Oldham 1975, 1976). In fact, when employees are granted autonomy, they have control over their job and may improve their efficiency, effectiveness, and proficiency (Van Harten, 2016). Moreover, being autonomous and feeling in charge of one's job increases motivation for better performance (Hackman and Oldham, 1976). In contrast, when employees are forced to complete a broad variety of activities, they will need to use a variety of skills, either enhancing the ones they already have or acquiring new ones: in this way, the job itself can inspire employees to update their knowledge and perform tasks more successfully.

Second, it is crucial that the employer invest in managerial support by means of HR practises and supervisor's behaviours that are helpful. Indeed, Van Harten (2016) cites the social exchange theory (Blau, 1964) to illustrate that companies may demonstrate their appreciation and support for employees by providing them with proper human resource practises, which should promote positive attitudes and behaviour. According to Van Harten (2016), supporting HR policies can boost employability and job possibilities, hence such expenditures can contribute to a growth in human capital. In fact, HR practises encourage workers to grow: they may perform in accordance with job standards or managerial expectations, which increases employability and, consequently, employment chances.

3.3.1. Benefits of sustainable employability

Van Harten (2016) studies the effects of sustainable employability on performance and on wellbeing. Indeed, when employability is "sustainable", the probability for employees of

prospering in the labour market for their whole working lives is higher. Indeed, Van Der Klink and colleagues' (2016) conceptualization implies that sustainable employability allows employees to find satisfaction in their job while also performing better. Hence, sustainable employability is beneficial both to employers and employees. Van Harten (2016), in her studies, finds that sustainable employability is linked to better performances but also to well-being, which is intended as "the quality of an employee's experience and functioning at work" (Van Harten, 2016, p. 40). The conservation of resources theory (COR; Hobfoll, 1989) can explain the link between wellbeing and employability: according to this theory, acquiring and maintaining more resources increases one's resilience.In fact, employable individuals are more likely to be successful when dealing with uncertainty and change; therefore, being employable increases one's control over his or her career, thus improving their well-being too.

Focusing on job performance, which Van Harten (2016, p. 40) intends as "how well an individual carries out the duties that are part of the job," she remarks that employability has a positive influence on performance. This can be explained by the fact that employable individuals have expertise and updated competences: thanks to these, they can perform better in their jobs.

3.3.2.   Defining sustainable employability: other viewpoints

Before the conceptualization by Van Der Klink and colleagues (2016), other definitions of sustainable employability were proposed by several authors. For instance, Van Vuuren and colleagues (2011) define sustainable employability as "the extent to which one is able and willing to perform current and future jobs" (p. 358), thus incorporating the concepts of willingness and ability. In this conceptualization, three components emerge: employability— that is, the employee's experienced job chances and willingness to change; vitality— experiencing high energy or mental resilience; and workability—the ability to perform one's job, mentally and physically. However, this definition seems quite complex, as argued by Van Harten (2016): the concepts of vitality and workability seem to overlap without a clear distinction between the two. A similar definition is provided by Thjissen and colleagues (2008), who define "lifetime employability" (p. 174) as "the behavioural tendency directed at acquiring, maintaining, and using qualifications aimed at coping with a changing labour market at all career stages." Again, this definition underlines the need for qualifications—the "abilities" mentioned in the definition—while the term "behavioural tendency" expresses the willingness to do something, the individual motivation component. In these definitions, just

the employee is mentioned: the employer is missing, and the individual is solely responsible for retaining existing skills and acquiring new ones throughout their working lives. Instead, another definition, proposed by Van Der Klink and other researchers (2011, p. 347), takes the external environment into account: "sustainable employability means that throughout their working lives, employees have continuous access to opportunities as well as conditions to perform in current and future jobs while remaining healthy and happy. This implies both a work context that empowers them, and the attitude and motivation to use the opportunities". This definition is more thorough and considers the external situation. However, Van Harten (2016) argues that this concept promotes uncertainty rather than clarity regarding what defines sustained employment. In fact, the definition comprises the antecedents for sustainable employability, which ought to be differentiated from the idea itself.

Van Der Klink and colleagues' (2016) concept of sustainable employability is similarly considered vague and lacking in clarity by Van Harten (2016). Despite this, this model is utilised in this thesis. In fact, the several elaborations that followed contributed to its lucidity and served to develop it further. Furthermore, the model is not overly complicated and has the excellent advantage of depicting sustainable employment as a process.

Following this, we give various elaborations of the model proposed by Van Der Klink and colleagues (2016), highlighting the problems in the definitions.

3.3.3. The SE model's main limitations

We will describe the elaborations of the initial model by Van Der Klink et al. (2016), beginning with some "critical reflections" proposed by Fleuren and colleagues (2016). The scholars underline the merits and the necessity for improvement of the model. Sustainable employability is a multidimensional concept, with a particular focus on its longitudinal dimension. According to Van Der Klink and colleagues (2016), argue Fleuren et al. (2016), organisations require workers to be productive and participate in work in order to maintain welfare. Moreover, the promotion of sustainable employability is certainly a complex subject, but it is essential due to the ageing of the population, the increase in people's longevity, and the resulting later retirement. Moreover, technological advancements and workplace evolutions make employability more vital than ever. Fleuren and colleagues (2016) acknowledge three significant benefits of Van Der Klink et al.'s conception.

First, they emphasise that sustainable employability is a multidimensional concept in which employees enjoy a broad spectrum of opportunities to create value for themselves and the

employer. As a result, it is essential to incorporate employees' wellbeing and motivation as means to create value. Second, Fleuren and colleagues (2016) emphasise that sustainable employability is realised when employees can work throughout their working lives and the context allows them to do so. Hence, sustainable employability results from the interaction of the employee and the work environment; the latter provides them with the opportunity and the competences to participate in the labour market. Consequently, the employer and employee share responsibility for building and maintaining sustainable employability: this is an essential issue that goes beyond the employee's attribution to merely developing and maintaining sustainable employability (Fleuren et al., 2016). Third, an important merit of Van Der Klink et al.'s conceptualization consists in the longitudinal nature of sustainable employability, argue Fleuren et al. (2016). Indeed, sustainable employability must be developed across an individual's whole career: sustainability reminds us of the significance of enduring through time.

In addition to the significant strengths of Van Der Klink et al.'s approach, Fleuren and colleagues (2016) identify other areas that require additional investigation. In reality, they claim that it is unclear which characteristics of the work environment constitute sustainable employability; this should be addressed. In reality, it seems implausible that the capability set would result in sustainable employability; it is unclear if the capability set refers to sustainable employability or a favourable employment situation.

Second, Fleuren and colleagues (2016) underline the fact that sustainable employability seems to be a feature both of the individual and of the job at the same time, but this is not possible: in fact, employability is a feature of the employee only, and not of his or her job. The work context certainly influences an individual's work ability, but this doesn't necessarily mean that it must be included in the construct. As Fleuren et al. (2016) notice, causes (employment) and effects (employability) should be separated.

A third problem concerning the model of sustainable employability is that the idea implies the achievement of value through one's work; yet this is difficult to achieve; in fact, the relationship should be evaluated using sustainable employability as a criterion. Considering the technique provided by Van Der Klink and colleagues, this is essentially hard to do, resulting in a lack of clarity on this subject (Fleuren et al., 2016).

According to Fleuren and his colleagues (2016), another issue is that sustainable employability seems to concern only employed people, as individuals are defined as sustainably employable only if given the opportunity to realise their value.

A final feature highlighted by Fleuren and colleagues (2016) is that the definition doesn't include any specification or operationalization of the longitudinal dimension of sustainable employability. In this sense, Van Der Klink et al.'s definition remains quite vague about how it is possible to achieve sustainable employability in one's working life; the author just mentions that it is supposed to last for an employee's entire working life.

These critiques by Fleuren and colleagues (2016) point out the need for further development of the model and its operational challenges. These critiques and the improvements to the model proposed by Fleuren and colleagues (2018, 2020) and by other authors as well (Hazelzet, 2019) address some of the limitations of the model. This results in more complex models, which, although not immediately understandable, could be more easily operationalized.

In this dissertation, we are going to start from Van Der Klink et al.'s model and focus especially on the conditions that allow someone to actually realise their potential. In fact, our studies focus on the personal and work conversion factors—those elements that enable individuals to transform the inputs into capability sets. In fact, the model doesn't focus specifically on these aspects, even though it is essential to understand how, starting from a set of personal and work inputs, one can eventually transform them into real capabilities to realise their potential. The conversion elements assist to explain why some people are able to achieve sustainable employability while others may struggle. Personal and organisational variables do, in fact, intervene and impact the outcome.

3.3.4. Elaborations on the model of sustainable employability

In addition to highlighting the major problems with the model, we describe additional developments and modelling of sustainable employability, as well as some applications of the conceptualization.

Fleuren and colleagues (2018) focus one of their studies on the problems related to ageing at work and sustainable employability. As a result of the trend toward an ageing population, the authors claim that perception that ageing is related with a reduction in work performance is generally believed. In fact, it is widely assumed that older workers are less capable of being productive and meeting work goals than their younger counterparts. Nonetheless, research shows that such claims are unfounded: there is a high degree of variability, and the idea that older workers perform worse than younger workers is unproven. This prejudice, however, is still present and can influence individual choices about employment, such as whether or not to retire, even if an individual is in good physical and mental health. As Fleuren and colleagues

(2018) point out, the trend of an ageing population has inspired research on sustainable employability: it has many implications for many individuals and organizations, such as the need to raise the retirement age, the need to ensure that different generations of workers collaborate well at work, and the hypothesis of the relationship between working performance and age. Sustainable employability attempts to make it feasible for people to work until (later) retirement or beyond while remaining healthy and motivated (Fleuren et al., 2018). In their 2018 work, Fleuren and co-authors seek to comprehend the impact of age on the dimensions of sustainable employability. In fact, they identify nine aspects of sustainable employability—that is, the factors explaining: they remind us that sustainable employability is defined as a "multifaceted longitudinal construct," in which "the employability component of SE can be captured as a formative construct consisting of nine complementary indicators of functioning at work and on the labour market" (Fleuren et al., 2018, p. 476). These nine elements include the perceived health status, the need for recovery, fatigue, work ability, job satisfaction, motivation to work, job performance, the skill gap, and perceived employability. In the study, the authors consider employability to be sustainable if, through time, these factors remain stable or grow. On the other hand, if a decline is observed, employability is considered not to be sustainable. Using self-reported surveys and age regressions, the authors examined 2,672 respondents across nine characteristics of sustained employment. In this case, only the perceived health status and employability are lightly affected by age, while the overall construct of sustainable employability is not affected. The limitation of this study, as underlined by the authors themselves, consists in the fact that the study targeted only individuals who didn't have demanding jobs from the physical point of view, but rather lighter ones. Hence, there might be a limited generalizability to the study due to the sample of workers chosen. However, it is interesting to notice that employability can actually be considered sustainable when the nine dimensions individuated tend to increase in value or remain stable over time. The idea that employability would decrease with time can therefore be attributed to stereotypes about the lower employability of older workers (Fleuren et al., 2018). Instead, another possible explanation for the lack of decline in sustainable employability over time could come from the fact that older employees may have elaborated some compensation strategies that help them cope with any type of decline they might encounter (Fleuren et al., 2018). Overall, the most significant contribution of Fleuren and colleagues' work may be the proof that, in fact, "modelling sustainable employability as a time-dependent construct is viable. Fleuren et al. (2016) propose that the sustainability component of [the construct] can be modelled as

development in sustainable employability and its dimensions over time" (Fleuren et al., 2018, p. 481).

As a result, the authors on sustainable employability tend to agree on the importance of sharing responsibility for its development between employers and employees, collaborating on this. Employers should thus promote the development of sustainable employability; they can do so by implementing some ad hoc interventions for this (Van Der Klink et al., 2016; Hazelzet et al., 2019). However, as Hazelzet and colleagues note, the effectiveness of such interventions is quite ambiguous. Using Van Der Klink et al.'s (2016) definition as a starting point, the authors propose four components that may be targeted by interventions: first, health, defined as a combination of well-being, vitality, and the quality of one's working life. Second, they consider the productivity component in terms of work ability, productivity, and performance; third, they consider valuable work from Sen's capabilities approach, which includes a positive attitude, motivation, and the necessary job competencies. For this component, they consider what is valuable for people and is valued by them, and how they can achieve these values in their working lives. Finally, they include the long-term perspective, which corresponds to future employability. Considering these four components as the basis for designing interventions indicates that what is significant is not only what the individual does, but also his available alternatives. According to the authors (Hazelzet et al., 2019), enhancing the competence set is the duty of both the individual and the organization. Indeed, according to the authors (Hazelzet et al., 2019), it is the individual's and context's responsibility to enhance the capability set. Hazelzet and colleagues (2019), therefore, investigate the effectiveness of employer-initiated interventions, analysing their content and outcomes. The findings are somewhat ambiguous: the authors provide evidence of various types of interventions with varying outcomes. In fact, the majority of the studies have little or no effect on health and productivity, whereas the interventions showing positive results tend to be those that include "valuable work" among their parameters.

Houkes and colleagues (2020) argue that there is a gap between the conceptualization of sustainable employability and its interventions and implementation, despite the fact that such a construct is important for both employers and employees. They therefore propose a new instrument that details employees' perspectives on sustainable employability. According to Houkes and colleagues (2020), sustainable employability results from the interaction between the individual and his job and the context (both social and organizational) he or she is embedded

in. They thus identify four construct components: "health" (intended as wellbeing, vitality, and the quality of one's working life), "productivity" (including work ability, productivity, work engagement, and performance), "valuable work" (which fosters a positive attitude, motivation, and the development of the necessary competencies); and a "long-term perspective" (Houkes et al. 2020, p. 2). Consequently they conclude that "an employee who is physically and mentally healthy, has the competencies that fit the job, is motivated and engaged, and expects to be able to work productively until retirement can be considered sustainably employable" (p. 2). The interventions to promote sustainable employability vary and may not follow the same trajectory. Indeed, interventions could be (1) individual interventions, involving mainly skills, training, and problem solving, or (2) organisational interventions, focusing mainly on the organisation of work. Van Vuuren and Van Dam proposed four types of interventions for sustained employability in the organisation of work, as Houkes and colleagues note (2013). These interventions include, for instance: (1) work adaptation, which consists in changing and extending duties to give employees more autonomy; (2) increasing employability by increasing employees' competencies through measures such as job rotation, training, and education; (3) promoting key aspects of the new way of working, such as flexible hours and work from home; and (4) implementing a positive work environment, such as adopting a leadership model. However, Houkes and colleagues (2020) underline that the interventions aimed at improving sustainable employability haven't been numerous, and their effectiveness is quite ambiguous. Hazelzet and colleagues (2019) also agree with this claim, and report that there isn't strong evidence for the effectiveness of the interventions to promote sustainable employability— rather, the results are quite ambiguous. Houkes and his colleagues (2020) remind that the dominant perspective on sustainable employability interventions is that of the employers; however, they argue that there's a need to discuss the employees' point of view as well. The ramifications of the shift in viewpoint primarily concern the assessment of sustainable employability and the scale that must be used in order to be seen as reliable. Several methods for measuring long-term employability are proposed, including the vitality scan (Brouwers et al., 2015), which has moderate to good reliability and construct validity; and the capability set for work, proposed by Abma and colleagues (2016), which identified seven skills to develop. The instrument is valid in and of itself, but it has poor criterion validity. Thus, Houkes and colleagues (2020) propose a valid, reliable instrument to measure sustainable employability from the employee perspective: it is the MAISE (Maastricht Instrument for Sustainable Employability). It was developed thanks to interviews on sustainable employability conducted with many stakeholders and the clustering of the themes in a list. The final set of items is

organised in five different areas, according to the employee's perspective: first, the meaning of sustainable employability according to employees; second, the level of sustainable employability of the employee himself; third, the factors affecting employees' sustainable employability; and, finally, the development of factors affecting sustainable employability. After validation, the MAISE construct proved to have good validity and reliability. Employees seem to consider themselves responsible for the development of their very own sustainable employability, but at the same time wish that their employer could improve the work context and the opportunities they are offered to adapt their job to their needs (Houkes et al., 2020).

Ybema and colleagues (2020) agree with Houkes et al. (2020) on the importance of enhancing sustainable employability at the initiative of the employer. Sustainable employability is indeed a necessity due to the trends in the ageing of the population and the need to remain in the active workforce for a longer period of time. As validated by Billet et al. (2015) and Van Harten et al., Ybema and colleagues (2020) propose that several HR practises and policies should be implemented to boost sustainable employability at work (2015). Ybema and colleagues therefore identify some parameters to measure the impact of such HR practices: they include improvements in skills and knowledge, as proxies for employability, but also motivation, health, and effectiveness from the employer's point of view. As a result, the authors concentrate on HR practises for all employees, taking into account the extent to which they are adopted by employees, employee involvement in the design and implementation of such practices, as well as organisational outcomes, such as the effectiveness to improve sustainable employability, employee satisfaction, and increased productivity. Ybema et al. (2020) observe that HR practises for sustainable employability might not have a different content than usual HR practices, but they could have a different target: if the latter are more directed at targeting the organization's strategic goals, the former are long-term focused, with the goal to make individual employees' careers sustainable and to work on their sustainable employability in the long term. As a result, the initial focus of these sustainable employability HR practises is on older workers, with the goal of promoting age diversity at work and combating age barriers. Various development-oriented HR practises can assist individuals find motivation at work and postpone retirement, hence preventing early retirement among older workers. However, sustainable employability is a topic that interests workers of all ages; as Veld and colleagues (2015) underlined, those practises supporting training and development and mobility are more positively associated to employability.

Ybema and colleagues notice, via a survey administered to business owners, CEOs, directors, and HR managers in 312 firms, that the efficacy of HR practises and the degree of employee involvement are greater when more HR practises are accepted and generally present in the organisation. Also, the implementation of HR practises shows an increase in productivity. The authors confirmed that a wide variety of HR practises improves health, motivation, skills, and knowledge. HR practises appear to be more effective when they are designed and implemented with employee input. Hence, investing in sustainable employability seems beneficial to organizations; it can be fostered thanks to HR practices. The latter indeed contribute to an improvement in health, motivation, and skills and knowledge for employees (Ybema et al., 2020). The authors report, moreover, that an increase in the effectiveness of such HR practises comes from the participation of employees in their design and implementation.

LeBlanc and her colleagues (2017) take a different approach to sustainable employability; their method is based on the AMO framework, which stands for ability, motivation, and opportunity to continue working. In fact, their operationalization of sustainable employability is based on four different conceptions of ageing at work: they take into account, for instance, the calendar age, the organisational age, which corresponds to how long a person has spent in the organisation and in her current role, the functional age, which corresponds to work ability, and the life-span age, which is related to the person's current life phase. Due to the requirement of retaining employees in working circumstances, ageing at work is viewed as an issue; in this sense, sustainable employability is viewed as "vital" to retaining people in the workforce and ensuring they are in working conditions and want to continue working. In this way, employees can work so that they can meet their own needs and at the same time meet the market's requirements without compromising their ability to do so in the future. Also, they need to make a valuable contribution now and in the future. Therefore, argue the authors (Le Blanc et al., 2017), sustainable employability based on the AMO framework implies that it is considered an individual attribute that applies to all the potential workers.

3.3.5. A comprehensive conceptual framework for sustainable employability

As presented so far, it emerges that after the conceptualization of sustainable employability by Van Der Klink et al. (2016), which is considered the seminal paper on the topic, other elaborations and developments of the theme showed a certain complexity and lack of immediateness. Sustainable employability can thus be difficult to understand. Thus, Fleuren and colleagues (2020) propose a conceptualization that aims at being a "comprehensive

conceptual framework." As a result, they propose expanding the initial framework to include additional dimensions such as sustainable employment and sustainable work ability. The framework thus results in a multidimensional, longitudinal concept that summons individual characteristics resulting from the interactions between the individual, the job, and the work environment. Fleuren and his colleagues (2020) agree on the main claims from the other authors about the need to promote sustainable employability due to various trends of population aging, changes in the workforce, and changes in the very nature of work.

Fleuren and his colleagues (2020) remind the definition of employability as given in the 2016 paper: employability is considered the capacity and willingness to be employed, recalling the definition provided by De Grip and colleagues (2004, p. 216). Instead, sustainability refers to the ability to use a resource without it being used up or damaged. Hence, the most basic definition of sustainable employability, according to Fleuren and colleagues (2020), recalls the fact that employability is not negatively affected by an individual's being employed over time. The role of time therefore assumes utter importance: individuals need to maintain their work ability throughout their working lives. Fleuren and his colleagues (2020) claim that the single determinants of sustainable employability can be identified when observing the changes occurring in an individual's employability according to time, personal factors, factors related to the work, and the external context. In fact, employability is a comprehensive construct: being able to function at work and in the labour market is not due to the merits of the individual only, but the influence of the context is equally relevant. In this sense, therefore, Fleuren and his colleagues (2020) propose as a conceptualization of employability the fact that an individual's employability is not negatively affected by the fact of being employed. Hence, sustainable employability is a longitudinal construct: employability is considered over time, as is the case for the approach proposed by Van Der Klink and colleagues and Abma et al. (2016). In this approach, capabilities provide insights into the antecedents and signs of sustainable employability at the individual level without making assumptions about what people value at work. Thus, capabilities allow to capture in a general dimension the relationship between the individual and the environment, and the fit between the two. Thus, sustainable employability is contingent upon the degree to which a person possesses the required skills and if a good person-job fit exists.

Sustainable employability can be defined, in the words of Sanders, Dorenbosch, and Blonk, as "a constant match between what a worker is able and willing to do and what the work demands and provides; a dynamic person-job fit" (Sanders et al., 2015, p. 209). Sanders and colleagues (2015) indeed argue that sustainable employability comes from an enduring person-job fit over

time; to maintain it, individuals should enhance and continuously work on their skills. Skills are at the basis of creating sustainable employability, as they represent the potential for being employed. While person-job fit is considered an antecedent for sustainable employability, the authors propose three routes for sustainable employability: first, a continuous lifelong learning approach; second, designing jobs so that they can fit the needs and abilities of the workers; and third, moving jobs inside or outside of the organization—through development, job redesign, and mobility routes, for example.

Brouwer and colleagues' Vitality Scan (2015), is a further operationalization of the concept of sustainable employability as established by Van Der Klink et al. (2016). This consists of a tool that uses several indicators to determine the possibility of stagnation in one's functioning and, thus, in one's long-term employability: balance, motivation, competences, involvement, resilience, mental and physical health, and social support at work. The method gives importance to the multidimensional nature of the concept and acknowledges the relevance of competence, motivation, health, and wellbeing. However, argue Fleuren and colleagues (2020), it includes contextual components in the indicators of sustainable employability as well.

As a result, Fleuren and colleagues (2020) argue that the temporal dimension and contextual components, which should not be included in the definition, are prerequisites for a comprehensive definition of sustainable employability. Indeed, sustainable employability is considered an individual characteristic, but with multidimensional features: the indicators included are in the domains of health, wellbeing, and employability, which can often be considered as outcomes of employment. Hence, the authors are claiming for the need of a comprehensive definition of sustainable employability, starting from a "basic definition of SE as when the employability of an individual is not negatively (and preferably positively) affected by the way in which an individual is employed over time. 'Employability' here should then correspond to an individual's ability to function at work but also in the labour market" (Fleuren et al., 2020, p. 11).

Fleuren and colleagues (2020) propose eight dimensions to describe the sustainable employability construct, belonging to various domains. First is the health domain, which is relevant as it indicates how well someone functions at work, predicting absenteeism and the intention to leave the labour market. The concept includes three indicators for this domain; the privileged ones are related to subjective health, as it is simpler for the employees to assess and because what matters is how the individual feels when they have to go to work. Thus, the indicators included are perceived health status, work ability, and fatigue (Fleuren et al., 2020). First, "perceived health status captures how healthy individuals perceive themselves to be";

second, work ability "captures how able an individual is to perform their job given their physical and mental health"; third, fatigue implies "psychological responses and disturbances of mood as a result of the mental and/or physical resources of an individual being depleted due to effort expenditure" (Fleuren et al., 2020, p. 14).

The indicators in the wellbeing domain, instead, include the psychological components of functioning at work: motivation, which describes the willingness to work, and job satisfaction, which describes how one is satisfied with his or her job. The authors remind that, to thrive in the long term, both job satisfaction and motivation are essential.

Concerning the third domain, employability, three indicators of sustainable employability are included: first, perceived employability, which captures the functionings of the labour market and one's chances in the internal and external labour markets. The second indicator concerns one's individual competencies, which, according to Fleuren and colleagues (2020), should be compared to the needs of the employer and evaluated. Third, it is an indicator of the adequacy of the performance at work.

The sustainability component, instead, contributes to preventing the decline of employability and, preferably, fosters its improvement over time. In this case, then, the trajectory of the development is individuated thanks to a latent growth curve model (LGCM): while the intercept defines the starting point of employability, the slope defines its development over time, how it will evolve over time, and hence its sustainability.

After having explained the indicators chosen, Fleuren and colleagues (2020, p. 15) can formulate a full definition of sustainable employability: "Sustainable employability means that an individual's ability to function at work and the labour market, or their 'employability', is not negatively, and preferably positively, affected by that individual's employment over time. This ability can be captured meaningfully as a combination of nine indicators (i.e., perceived health status, work ability, need for recovery, fatigue, job satisfaction, motivation to work, perceived employability, skill-gap, and job performance) that collectively describe how well an individual can be employed at different points throughout the working life". This definition implies that employability is caught by the combination of the nine criteria mentioned above at each point in time. The indicators can change over time, and their evolution can give an idea of the actual sustainability of employability.

The model by Fleuren and colleagues (2020), furthermore, includes the concept of sustainable employment into the framework. According to the authors (Fleuren et al., 2020, p. 15), sustainable employment "exists when aspects of employment do not negatively affect an individual's sustainable employability over time." This concerns, therefore, not the fact of being

employed or not, but rather how individuals are employed. In fact, the characteristics of employment can be analysed at various levels and include individual behaviours. First, the individual in a work position has some particular features, such as personality, age, and ethnicity, that constitute the initial situation. Second, individuals perform some tasks at work that correspond to the characteristics of the job. Third, since individuals are embedded in a work environment, the contextual characteristics have to be considered too. Indeed, these characteristics, according to Fleuren and colleagues (2020), can interact in several ways, predicting sustainable employability: thus, the relationship between sustainable employment and employability is reciprocal.

Therefore, sustainable employment is conceptualised as an antecedent of sustainable employability; this seems to have several advantages in terms of the clarity and solidity of the construct. First, this conceptualization acknowledges the employer's responsibility for sustainable employability (Fleuren et al., 2020), in the same way the model by Van Der Klink et al. (2016) did. In fact, it identifies both work characteristics and individual characteristics at the same moment to indicate the shared responsibility between employer and employees. By stating that sustainable employment is an antecedent of sustainable employability and thus separating them, it is possible to identify the antecedents of sustainable employability more clearly (Fleuren et al., 2020). In this way, sustainable employability can be identified as an outcome of employment at the individual level; in fact, it is the employee who has the capacity to be employed. Furthermore, the capacity to be employed is appropriate for the unemployed, who are excluded from the basic concept of sustainable employability. Finally, the distinction between sustainable employability and its antecedents allows for the clarification of its difference with sustainable employment. In fact, rather than focusing on employment status, it isolates aspects on which interventions can be made.

3.4. From sustainable employability to job design

The notion of sustainable employability, in all its nuances, emphasises the significance of employer and employee shared responsibility. Both parties are responsible for building a work atmosphere that enhances rather than impoverishes individual abilities and development, so allowing individuals to prosper in the long run. In order to do this, the two parties are jointly responsible for establishing the characteristics of employment to encourage sustainable employability. According to Van Der Klink and colleagues' views, therefore, the input related

to the work is not sufficient to let employees achieve their valuable functionings through the capability set.

In fact, the model proposed considers as inputs the means to achieve the objectives—work and personal inputs. Then, thanks to both work and personal conversion factors, that is, the possibility to convert inputs into tangible opportunities, a valuable work functioning can be achieved. This outcome comes as a result of a "constrained choice," since contextual factors influence inputs, conversion factors, decisions, or choices. Thus, as Van Der Klink and colleagues (2016) argue, sustainable employability can be achieved more easily by people "if their work does not merely represent a means to earn a living but if it can also be demonstrated to be intrinsically valuable." As a consequence, "value deliberation" has to take place in the workplace, shifting "from subjective well-being to what workers are objectively capable of" and "from resources alone to an emphasis on resources and conversion factors" (Van Der Klink, 2016, pp. 76–77). By adopting the perspective indicated by Van Der Klink and colleagues, therefore, questions arise about how to put people in a position to achieve their goals and well-being in their working lives. In fact, in an organisation, the need exists for the presence of both room for manoeuvre and the possibility for people to make their choices; thus, sustainable employability, satisfaction, and well-being result from a process that depends both on the individual variables and on the context, as a result of a long-lasting process. Van Harten (2016), whose analysis is focused on the employer's point of view, agrees on this point: she argues that employers are no longer in control of their own careers. Rather than that, they are expected to support and enable their employees' sustainable employability. For instance, she mentions the need to promote upskilling and reskilling, but she also suggests focusing on job design to create jobs that foster individual creativity and development (Van Harten, 2016). Fleuren and colleagues (2016; 2020) make a similar claim, arguing that the context in which employees work shapes their opportunities to achieve valuable outcomes and their ability to stay in the labour market in the long term.

We focus on job-related issues, such as work structure, that facilitate the employee's shift from inputs to capabilities and realisation of their useful functions. The contextual environment can help employees unlock their potential to improve their wellbeing and performance. In fact, the organisation of work determines how the organisation is structured and influences the outcomes in terms of performance. For these reasons, it is necessary to focus on the organisation of work. However, because employees are individuals who differ from one another, employees should be given enough leeway to find their own way to make valuable contributions. To explore how sustainable employability can be built into the daily working

lives of individuals, it is important to discuss the organisation of work and the initiatives individuals can take autonomously to overcome the constraints encountered in this respect. In the next chapter, we will deal with job crafting and job design.

Chapter 2. From Job Design to Job Crafting: a change in perspectives

Chapter Overview: from sustainable employability to work design

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Chapter Overview: from Sustainable Employability to Work Design

In the preceding paragraphs, we discussed topics pertaining to employability, its growth, and maintenance during an employee's career. After discussing the evolution of the paradigm of sustainable employability, we shift our focus to the elements of the organization assisting employees in achieving sustainable employability.

In fact, these factors, which we argue are the product of the way work is organized, play a key role in placing employees in a position to "be capable" to work towards good results.

Work, in particular, will allow individuals to find their own way to achieve something valuable for themselves and the organisation when it is structured to promote individual initiative and proactivity. This can be accomplished by giving employees the margin to draw it as it is more convenient for them, stretching the boundaries, and even modifying its content. Employees would therefore be "enabled", in the right conditions, empowered.

In the next paragraphs, we shall discuss job design and related organisational concerns. Then, we will address the empowerment and initiative of workers; in particular, we will focus on "job crafting" (Wrzesniewski and Dutton, 2001; Tims and Bakker, 2010), a set of proactive behaviours aimed at altering one's work to better suit the individual. We propose that the process of job crafting empowers workers and gives them the potential to become finally sustainably employable.

We will discuss the motivations for people to engage in job crafting and show the positive consequences of job crafting on the organization in terms of performance, employee satisfaction and retention, as well as the potential of being more prone to innovation (Berg et al., 2013).

We will conclude our chapter by showing the importance of job crafting as an enabling factor to help employees develop their sustainable employability over time.

1. Work Design

The theories on how to organise work are included in the corpus of job design. Wong and Campion (1991) define a job as "an aggregation of tasks assigned to a worker" (p. 825). Work design considers how employees participate in their allocated jobs and other emergent, social, and proactive activities (Parker et al., 2014).

The focus is on the various dimensions of work and on how to organise it, including how to set tasks and activities to be performed on a daily basis by employees (Oldham and Fried, 2016), but also on the processes and results of how the labour is arranged, coordinated, perceived,

executed (Grant et al., 2011). According to Grant, Fried, and Juillerat (2011, p. 418), the impact of organisational work is extremely relevant for organisations and employees, since it allows for a deeper understanding of several issues organisations face and contributes to their resolution (Grant et al., 2008). In addition, job design influences the behaviours and experiences of workers in the workplace, and it may facilitate management's control over other "soft" aspects of the business, such as culture, relationships, and people (Hackman and Oldham, 1980). Job design requires the attention of managers and can, therefore, be a factor in gaining a competitive advantage or, on the contrary, hindering it (Grant et al., 2008). The ongoing transformations in the world of work are an additional reason why job design is so relevant: jobs are evolving towards a greater degree of "autonomy, professionalization, and service customization" (Grant et al., 2008, p. 419). In fact, they argue that the increase in the discretion of employees and the flattening of organisations have given them the possibility to craft their jobs (Wrzesniewski and Dutton, 2001) and expand their tasks and roles. In tandem with this, technological advancements have given individuals access to an abundance of data and knowledge, which can enhance the autonomy of the employee. Thus, Grant and his colleagues claim that "job design is especially important in theory and practise because, unlike more intractable factors such as culture and structure, both managers and employees have the opportunity to change job designs on a regular basis" (Grant et al., 2008, p. 419).

Job design was defined by Parker (2014, p. 663), as "the content and organization of one's work tasks, activities, relationships, and responsibilities", while Morgeson and Humphrey (2008, p. 47) include in the definition the context of the workplace, thus describing work design as "the study, creation, and modification of the composition, content, structure and environment within which jobs and roles are enacted". Grant and Parker propose a more comprehensive definition, as they emphasize as well the effect of job design on the organization: in fact, they claim: "work design describes how jobs, tasks, and roles are structured, enacted, and modified, as well as the impact of these structures, enactments, and modifications on individual, group, and organizational outcomes." (Grant and Parker, 2009, p. 319).

The importance of work design is commonly acknowledged: as Parker and her colleagues (2017) argue, many of the variables scholars examine in the areas of psychology and management are influenced by how jobs are designed, including, for instance, "productivity, well-being/strain, absenteeism, presenteeism, job satisfaction, organizational commitment, job performance, creativity, and more." (Parker et al., 2017, p. 22). Job design impacts as well other variables and results, such as, for instance, downsizing, leadership, lean production, the

type of contract and their outcomes. Moreover, it can determine the starting conditions for the individual process of job crafting (Parker et al., 2017).

The relevance of job design is acknowledged even beyond the discipline of management: in fact, job design is taken into consideration in the most cited papers in various fields, including medicine, epidemiology, ergonomics, economics, industrial relations, sociology, and operation management. Nonetheless, in such works, job design in not cited as such.

The interest in developing the studies on work design comes from the necessity to solve the unintended consequences coming from the scientific management and the excessive division of labour. In spite of the copious abundance of studies and the development of the job design literature, it is still a matter of importance. In fact, argue Parker and her colleagues (2017, pp. 26-27), when positions are created, they are not always well-designed from a psychological standpoint. In addition, various researchers claim that the standardisation of labour and the reduction in discretion might be arising in the work context. Undoubtedly, the predominance of easier jobs and the escalating degrees of surplus in the demand in some particular professions, are contributing factors to the sustained importance of work design as a priority in the policy of many nations. In fact, in the majority of nations, government agencies have some offices responsible for the occupational health and safety, which are in charge of generating a policy-related emphasis on work design. Indeed, the government strategies concerning the national productivity (such as innovation in the workplace, skill development, innovation), and ageing, often include job design.

2. Theories on job design

The numerous theories on job design developed through time have been useful for scholars and practitioners, to better understand and improve employees' experiences in the workplace and their activities (Grant ad Parker, 2009). The abundance of studies of job design have explored various results: Grant and Parker (2009, p. 318) underline the effect on "behavioural outcomes such as performance, turnover, and absenteeism, psychological outcomes such as blood pressure, cardiovascular disease, and even mortality. However,", the authors argue "until quite recently, work design theory and research had begun to vanish from our top journals, as many scholars have assumed that the fundamental questions have already been answered". However, Grant and Parker (2009) disagree with such a statement: since the first theories on job design emerged, work has encountered deep changes and transformations. For instance, while the majority of jobs were in the manufacturing of physical goods, the focus is now on the service

economy and knowledge economy. The key to success is no longer mass production of goods, but rather meeting the needs of customers. In fact, they argue, the changes in a community affect the world of work, as it happened in the transition between manufacturing and the service economy. Moreover, the rapid growth of IT, communication technology, and transportation increased the need for organisations to be faster in their processes and decision-making. Consequently, the organisational structure often became flatter to favour autonomy and individual initiatives and to foster collaboration across different teams, often with various sets of competencies and different cultures and spread across various regions of the world. In a world that, due to globalization, has become flatter and faster, new theoretical perspectives are necessary to guide scholars and practitioners in describing, interpreting, and explaining the changes going on in the world of work.

In fact, Grant and Parker (2009) emphasise the importance of two perspectives on job design that have gained importance and that better suit the need to put the person at the centre of work design. The first perspective the scholars focus on is the relational perspective of job design, which focuses on the role of personal relations and the interdependencies in the workplace. The second, instead, is a perspective focused on proactive behaviours at work; the emphasis is on how individuals can take initiative to modify the work design and the context. The work design itself can be designed to foster initiative-taking by individuals.

Before focusing on the most recent perspectives on job design, we will present the most important theories on job design. In fact, Parker and her colleagues (2017) used scientific mapping to identify 5 clusters of work design research in a review article of the main theories about job design. The main areas individuated are: Taylorism, the socio-technical system, the job characteristics model, the job demand control model, and the job demand resource model. We will briefly deal with each of them in the following paragraphs.

3. The first theories on scientific management and the first responses

3.1. Taylorism: science into management

Taylorism was the first answer to the need to organise work. Inspired by Adam Smith's principles on the division of labour (1776), Taylor elaborates the principles of scientific management. As a result, tasks are broken down into simplified elements that each worker can carry out independently; interdependence is sequential. In the organisation of work, it was important to measure properly and analyse movements to make sure that the operations to be done were as simple as possible (Gilbreth, 1911). In 1913, Henry Ford applied these principles

to series production on the continuously moving automotive line. This application turned out to be a great success: the new standard for work design was set, and it was based on simplified jobs and a low degree of autonomy.

3.2. The Human relations school: a response to Taylorism's limitations

The approach of scientific management turned out to have some unintended consequences: workers are unsatisfied, alienated by the constant repetition of simple gestures. This type of organisation of work had detrimental effects for both physical and emotional health, such as a quick staff turnover, high levels of nonattendance, frequent strikes.

As a result of these problems, the human relations movement was created. As a result of these problems, the human relations movement was created. To address the low employee productivity, studies were undertaken with the goal of enhancing the working environment and raising productivity. For instance, the Hawthorne experiments, which were initiated in 1924, sought to change the lighting in the workplace in order to increase both production and worker comfort. Elton Mayo was the first to realise that job satisfaction rose if people had more freedom to create the workplace environment they wanted. Such findings corroborated the idea that employees' productivity increased when they were asked for suggestions about how to improve their work rather than doing it without including them. Therefore, it was demonstrating interest in them by directly soliciting their feedback, which might spur productivity development.

The attention to the jobs, the working conditions, the management, and their impact on productivity influenced the subsequent research, focusing on the satisfaction of employees' physiological and motivational needs.

Indeed, McGregor (1960) distinguishes two theories managers can adopt in their daily activities: Theory X and Theory Y. On the one hand, managers who follow Theory X believe that their employees are inherently lazy, unwilling to work hard, and avoid responsibilities. Hence, when it comes to job design, such attitudes will be reflected in jobs with low autonomy and limited possibilities to choose from. Leaders who believe in Theory Y, on the other hand, will presumptively assume that employees will be happy with a job well done and that they are genuinely motivated to work independently to accomplish their objective. Employees are actually eager to take on new duties, work towards fulfilling goals for both them and the company, and are ambitious and open to learning. Leaders who support Theory Y use these presumptions to create positions that offer people choices and encourage empowerment,

autonomy, and participation in strategic decisions. So, according to McGregor (1960), value rises when employees are given the freedom to meet their own demands.

These arguments were then developed by Herzberg (1966), who proposed the motivator-hygiene theory. The theory distinguishes two types of factors: first, "motivators" that are inherent in the job, such as the opportunity to achieve great results, recognition for one's results, or interesting and stimulating job content. Second, "hygiene factors," which are related to the context of the job—such as the working conditions, the social status, the wage, and the policies inside the organization. According to Herzberg (1966), job satisfaction is driven by "motivators," whose presence incites employees to work better and improve their results. Instead, the lack of satisfaction is rather determined by "hygiene" factors, which can demotivate but do not contribute to the employees' motivation in a positive sense.

4. Is it possible to improve employees' satisfaction and economic outputs simultaneously?

4.1. The Sociotechnical Perspective

The theories on motivation paved the way for the considerations from the sociotechnical system (Parker et al., 2017). In fact, Turner and Lawrence (1965) intended to classify the attributes of tasks and the shape of the job perceptions and their behaviours. In fact, the authors claimed that "worker's response to task attributes could and should become a more important factor in job design" (Turner and Lawrence, 1965, p. 2). To them, jobs should be explained from multiple perspectives: first, the behavioural perspective, which focuses on the behaviours required to perform the work. Second, the technical perspective, which includes the manual and automatic actions to be carried out; third, there is the organizational perspective – involving the role of the job in conjunction with others to attain the organizational goal. Fourth, the social perspective consists in the – that is, the social prestige of the job, while the fifth perspective – the personal one – consists in anticipating the possible career advancements. In their work, they examined 470 workers in 47 jobs in 11 organizations and identified that the "Requisite task attitude" – such as autonomy and responsibility are connected to job satisfaction and lack of absenteeism. They also distinguished other factors, the "Associated task attributes" (salary, pace of work, automation level).

Indeed, the Tavistock Institute's research aims to understand the interdependence of social and technological systems. For instance, Trist and Bamforth (1951) carried out a study on coal

miners and showed that the frequent physical and social problems people had at work were linked to some psychological and social factors.

In sum, the socio-technical approach to work design aimed at improving the effectiveness of the organisation by optimising both the human aspect and the technical aspect of it; in other words, the goal was to increase productivity, the quality of the output, and the employees' satisfaction simultaneously. According to the sociotechnical approach, this might be accomplished through autonomous workgroups. These teams do a task independently by integrating the varied abilities of their members; thus, there are interdependencies inside the group. If autonomous groupwork proved effective at the individual level in enhancing intrinsic and extrinsic job satisfaction, it would do so without affecting the person's motivation or performance. The autonomous workgroup proved efficient from an organisational standpoint: productivity increased as a result of the simplicity of the organisational structure and the elimination of some management posts, but worker turnover increased (Grant et al., 2011).

4.2. The Job Characteristics Model: a precise diagnostic to increase motivation, engagement, and performance

The work from Turner and Lawrence (1965) as well as expectancy theory (Vroom, 1964; Porter and Lawler, 1968) posed the basis for the following framework developed by Hackman and Lawler (1971). They aimed at observing the influence of the job characteristics on employees' approach at work and their conduct. Hackman and Lawler (1971) examined four dimensions of the job – variety, autonomy, task identity, feedback – and two interpersonal one – friendship opportunities and dealing with others – and observed that they would foster a higher motivation, job satisfaction, improved performances, decreased absences. Since only the dimensions about to the job showed consistent relation with the jobs, the two related to the interpersonal skills were discarded from the model.

This work laid the basis for the Job Characteristics Model (Hackman and Oldham, 1975; 1976; 1980), which has been the model of reference of job design since its creation, and still is the most important model for job design today (Grant et al., 2011).

Hackman and Oldham carried out two important studies in 1975 and 1976: the Job Diagnostic Survey (1975) and the test of the underlying theory (1976). They collected data from more than 600 employees in 62 different jobs, and, in the Job Diagnostic Survey, they examined 7 dimensions of the job, but only 5 of them turned out to be core dimensions: skill variety, task identity, task significance, autonomy, and feedback from the job. As Oldham and Hackman

(2010) explain, "skill variety" is "the degree to which a job requires a variety of different activities in carrying out the work, involving the use of a number of different skills and talents of a person" (p. 464). Task identity, instead, corresponds to "the degree to which the job requires doing a whole and identifiable piece of work from beginning to end" (p. 464), whereas task significance is defined as "the degree to which the job has a substantial impact on the lives of other people" (ibidem). Autonomy, underline Oldham and Hackman, consists in "the degree to which the job provides substantial freedom, independence, and discretion to the individual in scheduling the work and in determining the procedures to be used in carrying it out" (ibidem), and, finally, job-based feedback corresponds to "the degree to which carrying out the work activities required by the job provides the individual with direct and clear information about the effectiveness of his or her performance" (Oldham and Hackman, 2010, p. 464).

According to Hackman and Oldham, these five aspects of the job define the structure of the tasks that the employee must complete and have an impact on how they perceive their job (Grant et al., 2011). In fact, they are conducive to three different psychological states: experienced meaningfulness, experienced responsibility, and knowledge of the results. More specifically, experienced meaningfulness is fostered by skill variety, task identity, and task significance; the presence of these features makes their work more valuable and important for workers. Also, autonomy and job-based feedback would increase, respectively, the responsibility for the outcome of the work and the knowledge of the results (Hackman and Oldham, 1976; Humphrey et al., 2007; Oldham and Friedman, 2016).

Other motivating aspects of the job include information processing, specialisation, job complexity, and problem solving, all of which are primarily related to the knowledge requirements of the profession. In particular, information processing is defined by Humphrey and colleagues as "the extent to which a job requires an incumbent to focus and manage information" (Humphrey et al., 2007, p. 1335) – the higher the expected level of information processing, the more the job requirements will change and the greater the need for a high level of information processing and management skills among employees. A third motivating aspect of a job is its complexity, as defined by Humphrey and colleagues (2007). Job complexity refers to how difficult it is to accomplish a job, in terms of requiring high-level abilities and being cognitively taxing. The authors emphasise that this trait is associated with a higher level of job satisfaction, but it can also lead to feelings of work overload and increasing inefficiency. Specialization, defined as "the extent to which a job involves the performance of tasks requiring specific knowledge and skills" and signifying "the depth of knowledge and skills necessary," is another factor to examine (Humphrey et al., 2007, p. 1335). Specialization, according to

Morgeson and Campion (2002), can be a good way to solve the problem of the trade-off between efficiency and satisfaction. According to the authors, specialisation allows work to be completed more efficiently while simultaneously motivating the employee due to the high level of knowledge required. In addition, Humphrey and colleagues describe problem solving as "the extent to which a job requires the production of unique solutions or ideas" (Humphrey et al., 2007, p. 1335). Similar to creativity when it comes to solving complicated problems in novel ways is the concept of innovation.

Several aspects of job characteristics – information processing, job complexity, specialisation, and problem solving – have positive relationships with both behavioural and attitudinal outcomes, and a negative relationship with bad behavioural outcomes. Specifically, "task variety, job complexity, and information processing demonstrate large relationships with job satisfaction" (Humphrey et al., 2007, p. 1347), although the first two also demonstrate a clear correlation with work overload.

5. Introducing stress, control, and work engagement as determining factors for long-term impact

5.1. The Job Demand-Control model

Karasek (1979) established the Work Demand-Control model, which examines the effect of job design on physical and mental health.

Karasek (1979) argues that studies on motivational job design undervalued job demands, whereas epidemiological studies demonstrated that stress had an effect on mental health but neglected job discretion. Karasek suggested a model based on two dimensions, which might be high or low: job demands — the requirements of the job, such as workload, effort, and time pressure — and decision latitude - the "individual's potential control over his tasks and his conduct during the working day" (Karasek, 1979, pp. 289–290). A "passive job" is characterised by a low level of decision latitude and low level of job demands. A "low strain job." is characterised by a combination of low job demands and increased discretion latitude. Conversely, a "high-strain job" is characterised by a high level of job demands and a small margin for decision-making. Lastly, "active" jobs have high levels of both task demands and decision flexibility.

The higher the amount of employment requirements and the lower the ability to make judgements in response to those requirements, the greater the pressure and stress individuals experience. Karasek (1979) believes that the latitude of control can have a positive buffering

effect against the negative impacts of job demands: it allows employees to organise their work. Employees can avoid the detrimental effects of stress and strain if they have more control over their jobs. Eventually, Karasek and Thorell (1990) added social support as an additional countermeasure to occupational expectations.

Importance of the concept stems from the recognition that a high level of job demands and a low degree of decision latitude can be detrimental to the health and well-being of the worker, as the worker's daily work experience deteriorates and the likelihood of recovery lowers (Parker et al. 2017). As Parker and colleagues (2017, p. 13) note, "an advance in this literature has been to highlight that not all demands are created equal." Individual variability is a significant factor in deciding how stressed a person might be. Cavanaugh and colleagues (2000) differentiate between "bad stressors" and "good stressors." Negative stresses include impeding pressures, such as a heavy workload, a high level of responsibility, and time constraints; these elements can impede goal achievement and personal growth. Good stressors, on the other hand, include variables that challenge the individual and push him or her towards career success and personal growth, such as organisational politics, job ambiguity, and role conflict.

Even though both positive and negative stresses have a positive correlation with burnout, the obstructive effect may be higher. Moreover, according to Parker and colleagues (2017), demanding expectations are positively associated with high performance and attitudes at work, whereas hindering demands are negatively associated with bad performance and negative attitudes.

5.2. The Job Demand-Resource Model

5.2.1. Two paths for work engagement and stress: an integrative model

The following advance in the main theories of job design is the job demand-resource theory (JD-R) proposed by Evangelia Demerouti and Arnold Bakker (Demerouti et al., 2001). As reminded by Bakker and colleagues (2023), the Job Demands-Resources Theory is a comprehensive theory about job design that takes into account both job stress and motivation. The model has encountered various evolutions since the first proposal in 2001, and, in that version, showed two main contributions with respect to Karasek's model. First, the authors argue that other characteristics are present, besides control and support, that can function as resources to counterbalance job demands, promote growth, and help individuals achieve goals. Second, the job demands-resources model presents two possible outcomes at work: motivation and strain. Parker (2017, p. 5) notice that the essential aspect of the JD-R is the argument that

job demands can cause health damage because they induce stress and burnout, while the resources favour work engagement and can lead to an improved level of performance. Thanks to this double path, researchers could realise how important it is to consider various factors when evaluating the impact of job design.

On the one hand, the JD-R represents a solution to the problem of burnout, which Bakker and Demerouti (2017, p. 273) define as "a syndrome of chronic exhausting, a cynical, negative attitude towards work, and lower professional efficacy that can happen in any job" (Bakker and Demerouti, 2017, p. 273). Burnout had already been studied, but a theory to explain it was missing. In the International Classification of Diseases (ICD-11) (WHO, 2019), it was only in the last few years that burnout was recognized as an "occupational phenomenon" (Demerouti et al., 2021, p. 687).

On the other hand, the JD-R theory presents work engagement as an outcome; work engagement was introduced by Kahn (1990, p. 694) as "harnessing of an organization's members' selves to their work roles; in engagement, people employ and express themselves physical, cognitively, emotionally, and mentally during their performances".

Therefore, engagement implies being present psychologically when performing a role in an organization (Saks, 2006). Bakker and his colleagues (2023) underline that it was the research on burnot to stimulate the one on work engagement: in fact, the employees in burnout are detached from their work, and feel strain, cynicism, and lack of efficacy. Instead, individuals who experience work engagement are in an opposite situation: they are energized, effective and efficient in their job (Maslach and Leiter, 2008). Thus, claim Bakker and colleagues (2023), the path leading to work engagement must be opposite to the one leading to burnout.

So, the JD-R theory, which is a flexible and integrative model, would help us understand how two sets of work characteristics affect how effective and productive workers are. In fact, Bakker and Demerouti (2007) divide occupational factors into two main groups: job demands and job resources. Job demands are "those physical, psychological, social, or organizational aspects of the job that require sustained physical and/or psychological (cognitive and emotional) effort or skills and are therefore associated with certain physiological and/or psychological costs" (Bakker and Demerouti, 2007, p. 312). Job demands are not necessarily negative, but they can act as stressors if the level of effort required is high and employees don't have the time to recover from it. On the other hand, instead, Job Resources are "physical, psychological, social, or organizational aspects of the job that are either/or: functional in achieving work goals, reduce job demands and the associated physiological and psychological costs; and that are able to "stimulate personal growth, learning, and development" (Tims et al., 2012, p. 174). Bakker and

Demerouti (2007) agree with Hackman and Oldham's Job Characteristic Theory (1980) on the fact that job resources have a high motivating potential at the task level, including autonomy, feedback, and task significance. Job Resources exist in firms at various levels and can thus be distinguished and integrated; in fact, they exist at an organisational and/or interpersonal level, as well as a work organisation or individual level. While some of the job demands and resources can be found in any job, others are more specific to some particular occupations (Bakker et al., 2023).

Job demands and job resources nurture two processes: a health impairment process and a motivational one (Bakker and Demerouti, 2001). More precisely, a high or permanently high level of job demands increases the efforts of employees, which drains their resources (physical, mental, and emotional). If employees do not have the possibility to restore them, they could experience exhaustion and health problems. Conversely, since the job resources foster work engagement, this positive experience boosts motivation even more, leading to increased creativity and better performances (Bakker et al., 2023).

The first paper (Demerouti et al., 2001) established that only job demands predict strain, whereas job resources determine engagement or disengagement. The studies that followed the first paper provided evidence about the pathways. Bakker and colleagues (2003), for instance, studied the outcomes of job demands and job resources. They found that job demands predicted the duration of absences, mediated by burnout, as an indicator of damaged health. On the other hand, job resources predicted the frequency of absences as an indicator of motivation and were mediated by organisational commitment (Bakker and Demerouti, 2017).

Another study, carried out by Hakanen and colleagues (2008), focused on 2500 dentists and showed that job resources had an impact on work engagement in the future and that this could foresee organisational commitment. Conversely, job demands anticipated burnout in the longer term, which could then lead to depression.

The interaction between job demands and job resources constitutes another important point in the propositions of the model (Bakker and Demerouti, 2017). In particular, they argue that job resources can act as a buffer against the impact of job demands on stress. Bakker and colleagues (2010), for example, provided evidence from a study involving over 12000 workers, in which it was discovered that 88% of the interactions between job demands and job resources were significant, confirming that employees with more resources in their job can better respond to job demands.

Moreover, the job resources can motivate the employees even more effectively when the job demands are high too. In fact, as is the case in Karasek's model, "active jobs"—that is, those

that couple high demands and high decision latitude—are more motivating and push people to learn new things and apply them to the issues of their job. Therefore, high resources can help people face the challenges that job demands provide.

Job resources are certainly important, but personal resources are useful as well. Bakker and Demerouti (2017) argue that these resources, related to the degree of self-efficacy, optimism, and degree of control over the environment, have an important role in increasing work engagement. At the same time, they could be helpful in buffering against the job demands and the associated strain (Bakker and Demerouti, 2017).

5.2.2. Job crafting in JD-R: regulation of Job Demands and Job Resources

Bakker and Demerouti (2017) argued that the initial proposition of the job demand-resource theory was in a top-down direction: jobs are designed by the management, establishing "the job demands and job resources of their employees." Hence, employees "might flourish or experience strain after being exposed to these work environments" (Bakker and Demerouti, 2017, p. 276). The approach was therefore similar to that of Hackman and Oldham (1980), in that the proactivity of employees was not considered. However, the authors drew from the conceptual framework of job crafting, first proposed by Wrzesniewski and Dutton (2001) in the US. Job crafting consists of a set of proactive behaviours employees engage in with the goal of modifying some features of their job to make it more suitable for themselves. The role-based perspective of job crafting, proposed by Wrzesniewski and Dutton (2001) and other authors (Berg et al., 2013), identified three main ways in which work can be modified: (1) task crafting—modification of tasks; (2) relational crafting—changing the relationships at work or with customers or suppliers; and (3) cognitive crafting—changing how one thinks of his or her jobs.

Bakker and Demerouti (2017) agree on the importance of job crafting: in the job demand-resource perspective, job crafting is defined as "the proactive changes employees make in their own demands and resources" (Bakker and Demerouti, 2017, p. 276). Thus, job crafting can be defined as "proactively increasing their job resources (e.g., asking for feedback and assistance), challenging job demands (e.g., starting new projects, learning a new skill), and decreasing their hindrance job demands (e.g., reducing workload and bureaucracy)". Thanks to job crafting, employees can maintain their motivation and enhance their job. Therefore, argue Bakker and Demerouti (2017), workers who feel a high degree of motivation towards their job will most

likely engage in job crafting to further increase their job and personal resources, boosting their motivation even more. In other words, "engaged employees can create their own 'gain spiral' of resources and work engagement through job crafting" (Bakker and Demerouti, 2017, p. 276). The research on job crafting has confirmed the positive effects (e.g., Tims et al., 2013) it can have, but we will deal more in depth with job crafting in the following sections.

The process of health impairment, instead, showed a similar pattern of "reversed causal and reciprocal effect" (Bakker and Demerouti, 2017, p. 276). More specifically, the authors explain that not only may job demands harm individuals by triggering stress, but also that employees who are under stress and strain tend to create a higher level of resources over time. The downward spiral is therefore explained as follows: "Employees who are strained by their work are likely to show self-undermining behaviours, which lead to higher levels of job demands and even higher levels of job strain" (Bakker and Demerouti, 2017; p. 277).

Figure 2 shows the Job Demand-Resource model as theorized by Bakker and Demerouti (2017).

Figure 2. The Job Demand-Resource model (Bakker and Demerouti, 2017, p. 3).
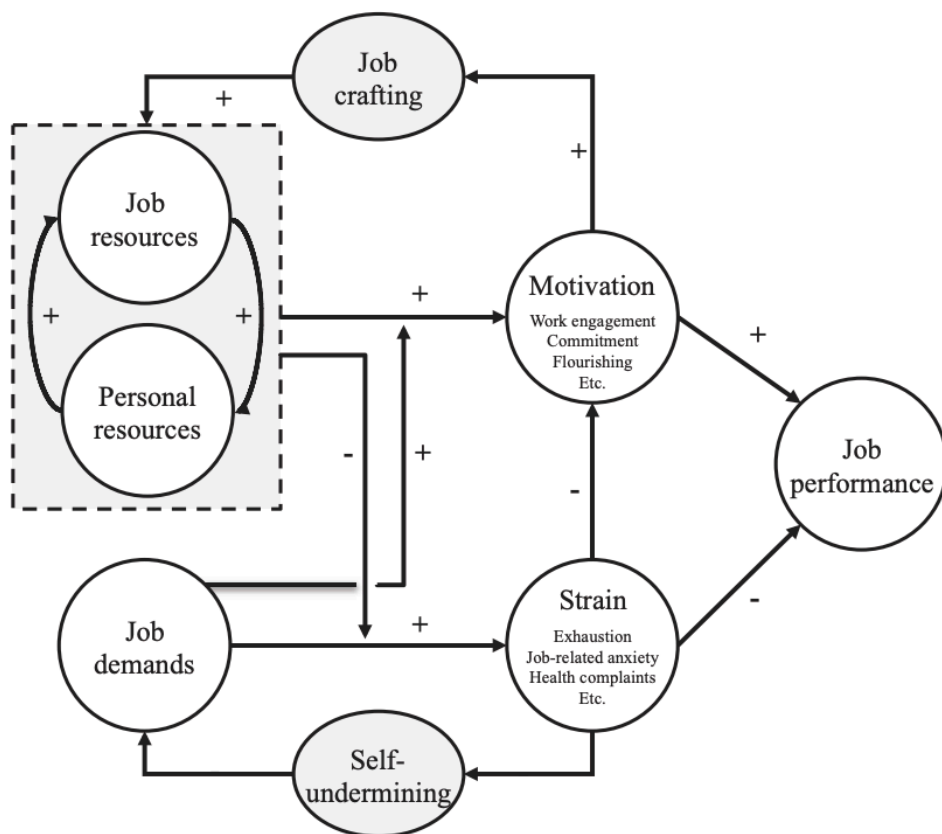
5.2.3. The evolution of the Job Demands-Resources Theory

The JD-R is a flexible, adaptable model that evolves through time. In fact, other perspectives have emerged and enriched the theoretical framework: the person x situation approach, the multilevel JD-R theory, the new proactive approach to JD-R, and the work-home resources model (Bakker et al., 2023).

First, the person x situation approach, which is based on the fact that, according to Bakker and colleagues (2023), the individual personality is more or less stable over time, but job characteristics, work situations, and events can vary more. Indeed, Bakker and colleague argue (2023, p. 37) that "personality is a higher-order construct that differs between individuals, whereas job demands, job resources, and personal resources differ within individuals". In this perspective, job demands and job resources are considered as, respectively, increasing exhaustion or job engagement on a daily basis. Therefore, in the person x situation approach, personality "is proposed to moderate the daily effects of job demands and resources on wellbeing and outcomes."

Second, the multi-level JD-R theory takes into account the fact that employees work in teams that have to function in organizations. The top management will therefore define the role for HR and the organisational culture and climate. Therefore, leaders are chosen by the organisation according to HR practices. The leaders will be developed, and they will influence the job demands and job resources for their team, thus influencing their performance and well-being (Bakker et al., 2023).

Third, Bakker and his colleagues (2023) focused on new proactive approaches. According to the JD-R theory, employees are motivated to look for resources that can help them balance the demands of their jobs (Bakker et al., 2023). Proactive behaviours at work are those actions that aim at changing either the situation one is embedded in or oneself (Bindl and Parker, 2011). The JD-R has included, among the proactive behaviours, job crafting, proactive vitality management, and playful work design.

Job crafting consists of a series of proactive behaviours directed at modifying the individual's situation to increase well-being, motivation, and engagement, while reducing hindrance, stress, and strain (Tims and Bakker, 2010; Tims et al., 2012). The studies on job crafting have shown that employees can increase job resources and decrease job demands, but they can also optimise job demands, which results in a better relationship between engagement and performance. A

second important insight in the latest research on job crafting is that training interventions can teach individuals how to use job crafting deliberately to increase their challenges.

Proactive vitality management, instead, is aimed at changing the individual himself: it is a type of proactive behaviour that aims at improving one's physical or mental situation to perform better at work (Bakker et al., 2023). Proactive vitality management is connected to improvements in creativity, especially for individuals highly inclined to learn and able to acknowledge their energy in contexts promoting creativity (Bakker et al., 2023).

Playful work design consists of a process in which employees, without modifying the job design, manage to create work situations that enhance play and fun. To make their job more enjoyable, employees develop a sense of humour and fantasy, but they can also increase the level of challenge by modifying their tasks. Individuals can use playful work design to create a better fit between their tasks and their skills, increasing the inventiveness and challenge in their job. According to the JD-R theory, playfulness in work activities helps to reduce the negative effects of repetitive and inconvenient demands and promotes work engagement (Bakker et al., 2023).

6. Individuals' involvement at work: integrative perspectives on job design

The most important perspectives on job design presented above are a reflection of the historical evolution of the discussion around job design. However, distinguishing them clearly allows for some connections to be drawn across domains (Parker et al., 2017). Some efforts in these directions have already been made; for instance, Campion (1988) identified four work design models that stem from different disciplines. First, there is the mechanistic model, which seeks to maximise efficiency through a background in scientific management and industrial engineering. Another motivational approach comes from organisational psychology. The goal of this motivational approach is to maximise job satisfaction and individual motivation. A third approach is the biological one, which finds its roots in ergonomics and medical sciences. At work, emphasis is placed on comfort and physical health. Finally, there is the perceptual-motor model, which comes from the human factor and experimental psychology; the focus is on the demands of attention and information in work. Highlighting the pros and cons of approaches from various disciplines is actually useful for job design and redesign: it allows you to capitalise on the good aspects of an approach while compensating for its flaws (Campion, 1988).

Another interesting perspective is the relational job design perspective, identified by Grant (2007). Relational work design underlines the "relational architecture of jobs that increases the motivation to make a prosocial difference by connecting employees to the impact they are having on the beneficiaries of their work" (Grant, 2007, p. 395). Hence, importance is given to the social context in which work is embedded, which influences individuals, as we will discuss in the next paragraph.

6.1. Role theory

Kahn and colleagues (1964) were the first to make the argument that role conflict and role ambiguity are two types of stressful role dysfunction. Indeed, both of them have proven to foster negative consequences, such as, for instance, turnover and strain (Parker et al., 2017). However, Parker and colleagues (2017) suggest that a different approach is also possible. Indeed, they claim that role should not be considered a fixed, unchanging quality or a job demand; instead, it is interesting to understand how individuals change their role, for what reasons, and in what situations.

For example, Ilgen and Hollenbeck (1991) argue that roles are a broader concept than jobs because the former include some proactive aspects and can be tailored to the individual. Instead, jobs and tasks include objective characteristics and goals. To shape one's role, what turns out to be useful is job crafting (Wrzesniewski and Dutton, 2001), which consists in changing the tasks, relationships, and thoughts about one's job to make it better suit oneself. Hence, job crafting allows individuals to shape a more suitable role for themselves.

Moreover, Parker and colleagues (1997) discuss the concept of "role orientation," which describes "how individuals construct their roles in different ways" (Parker et al., 2017, p. 16). Indeed, the scholars showed that "autonomous work designs promote flexible role definitions that in turn predict job performance." (ibidem).

6.2. The importance of relationships at work: relational perspective of job design

Grant and Parker (2009), in their review of the main theories of job design, discuss the importance of the social context in work design; in fact, it is a critical factor in influencing employees' conduct and experiences. As jobs are constituted of tasks to carry out, relations to establish within and outside of the organization, and roles to be enacted, they can't be detached from a series of personal relationships. The importance of relationships at work was first recognised by the Tavistock Institute's studies, which examined the social structure of work.

These studies made it feasible to emphasise the significance of informal social interaction and the relationship between these interactions and job satisfaction.

Job design research, particularly that initiated by Hackman and Oldham (1975, 1976, 1980), investigates the nature and quantity of relationships encountered at work, including how much the job involves social contact, what the jobs' interdependencies are, how many opportunities there are to make friends, whether interactions are optional and can be avoided, and how getting and giving feedback works. In the 2000s, however, academics of work design recognised that "jobs, roles, tasks, and projects are inextricably intertwined with interpersonal relationships, connections, and interactions" (Grant and Parker, 2009, p. 11).

Grant and Parker (2009) highlight various reasons that led to leaving these aspects aside. The first reason was dictated by the empirical results of the studies of work characteristics: since the social factors seemed to be weak predictors of motivational outcomes, researchers thought that work characteristics were more important. Secondly, tasks were separated from the social signals of the jobs, as the research on social information theory criticised the fact that perceptions of the job were based on the influences of others and not on the social structures of the work. Hence, social aspects of the job were considered separately and less important. A third reason for which the social factors at work are considered less important, according to Grant and Parker (2009), is due to a cognitive revolution in job design research: in fact, researchers happen to be more interested in the cognitive processes of individuals than among different people. Fourth, the change in the social context of work has contributed to an increased interest in the relational aspect of jobs. In fact, the way in which the organisation is organised makes it imperative to manage properly the social aspects of the job: for instance, employees will often find themselves working in teams, collaborating beyond the boundaries of the organisation (for example, co-creating a project with customers or managing customer service), going through M&As, working in a matrix organization, ... (Grant and Parker, 2009).

In their research of the social characteristics of job design, Morgeson and Humphrey (2006) stated that Hackman and Oldham's Job Diagnostic Survey (1980) only assessed a limited number of motivational features of job design, omitting other crucial features. So, they (Morgeson and Humphrey, 2006) developed the Work Design Questionnaire (WDQ), a comprehensive measure of the 21 aspects of the job, which they administered to 540 workers in 243 distinct occupations. They found numerous work characteristics, which they classified into three primary categories: motivational, social, and contextual (Morgeson and Humphrey, 2006). Motivational characteristics are related to job complexity: the higher these characteristics, the more satisfying and motivating the job will be for employees. They can be

divided into task characteristics and knowledge characteristics. The task characteristics reflect the job characteristics model's features of the job: autonomy, task variety, task significance, task identity, and feedback from the job (Hackman and Oldham, 1976, 1980; Morgeson and Campion, 2006). The knowledge characteristics, instead, reflect the types of knowledge and abilities an individual needs to be coherent with what is done in their job: they include job complexity, information processing, problem solving, skill variety, and specialization.

The contextual characteristics are included in the model as well. Morgeson and Campion (2006) include ergonomics (how a job grants appropriate moves or poses), physical demands (the level of physical effort demanded by the work), work conditions (the environment in which the job is carried out), and equipment use (how complicated the technology used in the work is). As for social characteristics, Morgeson and Campion (2006) individuate social support, interdependence, interaction outside the organisation, and feedback from others.

According to Morgeson and Humphrey (2006), social support corresponds to the degree to which the employment gives the assistance and advice of others, which has been shown to be essential to well-being. Interdependence, which can be either initiated or received, relates to the degree to which distinct jobs are interconnected, so that one need the assistance of another to fulfil his or her task. Interaction outside the organisation is the degree to which employees interact with non-organizational members, such as clients, suppliers, and customers. Feedback from others, on the other hand, refers to the degree to which employees receive information from superiors, coworkers, clients, or others on how they accomplished their duties (Morgeson and Humphrey, 2006).

Humphrey and colleagues investigated the significance of the social characteristics of work (2007). They performed a meta-analysis of 259 studies including a total of 219625 participants. The study revealed that the social features of the job were significantly more influential on employee attitudes than motivational, task, and knowledge features. So, the significance of the social components of the job was validated, and researchers acknowledged that these factors may have been neglected.

Many perspectives have enriched the research of each of the social characteristics of the job. While job crafting is the subject of our discussion, we shall only present a few examples of them here. First, social support was explored or taken into account in various theoretical models, such as the job demand-control model elaborated by Karasek (1979), the Job Demand-Resource model (Bakker and Demerouti, 2001; 2007; 2017), the organisational support theory, which is based on the social exchange theory (Blau, 1964), and the social undermining perspective (Duffy et al., 2002).

6.3. The importance of individual's initiative: the proactive perspective of job design

In the traditional job design perspective managers are responsible for designing and plan employees' work, hence the discussions on job design are based on a top-down perspective, as it is the case for the Job Characteristics Model (Hackman and Oldham, 1976, 1980).

With the increasing uncertainty, it becomes more complicated for managers to design jobs that can be carried out effectively (Grant and Parker, 2009). For instance, technological development can lead to a deep transformation in the way of working and to new challenges to be faced. The pace becomes faster, the very nature of some jobs can be deeply changed in their content, and new ways of organizing are required (Ilgen and Hoellenbeck, 1991).

According to Grant and Parker (2009, p. 38) "the advent of global work, virtual work, telework, and self-managing teams has replaced static jobs with dynamic roles, tasks, and projects that are constantly shifting and changing. As such, the meaning of performance in organizations is changing. Managers cannot merely expect employees to carry out their assigned tasks proficiently; they now rely heavily on employees to adapt to and introduce changes in the nature of work and the methods used to carry it out."

On the side of the employees, flexibility is more and more demanded: in fact, employees have to cope with uncertainty in the management of their careers, and will have to change job various times in the course of their working life. Therefore, they expect to find a job that could help them realize themselves, that offer them good working conditions and flexibility. Indeed, Grant and Parker (2009) underline the importance of not assuming that employees will only execute the job their manager assign them to, without actually adding their own touch. In fact, employees are more likely to be "active participants in work design" (Grant and Parker, 2009, p. 38).

The literature on proactive job design recognized three main areas: work design to stimulate proactivity, idiosyncratic deals (I-deals) and role negotiations, and job crafting and role adjustment. Since job crafting is the main topic of the dissertation, it will be discussed thoroughly in the next paragraph. Here, we will deal with the first two main topics.

6.3.1. Work design to stimulate proactivity

The kind of work design that stimulates proactivity is the one that promotes autonomy and responsibility and lets employees manage a certain amount of ambiguity on their own (Grant and Ashford, 2008).

According to Grant and Ashford (2008), greater autonomy enables individuals to have the confidence to expand their roles and be more proactive in pursuing tough goals and working diligently to attain them.

According to the traditional perspective on job design (Hackman and Oldham, 1976), when people are autonomous in their job, they tend to perform better. This occurs as a result of increased drive and a sense of responsibility for their task. In contrast, another viewpoint contends that the improved performance gained through motivation is the result of an established learning mechanism: employees are willing to enhance their skills and expand their position and feel empowered to do so (Grant and Parker, 2009).

Instead, accountability, which Grant and Parker (2009, p. 43) define as "expectation to justify one's action to an audience," may enhance proactivity: in fact, people feel more responsible and in need of taking initiative. Accountability can even be useful, as it helps reduce the difficulty of starting an initiative; in fact, Grant and Ashford (2008, p. 14) remind that "given that they are already in the spotlight, they may as well anticipate, plan, and act in advance as much as possible to increase their chances of success and demonstrate that they are taking initiative."

Proactive behaviours can be triggered by ambiguity as well. Grant and Parker (2009, p. 42) define it as "the presence of uncertain or equivocal expectations": facing a situation lacking clarity, employees will try to reduce uncertainty and will thus engage in proactive behaviours. Yet, the outcome of an ambiguous situation is not clear-cut. On the one hand, individuals may be more willing to do something on their own initiative, avoiding problems from happening or increasing the complexity of a structure to lower uncertainty. On the other hand, instead, ambiguity can result in a source of stress for workers, who may not be able to interpret a situation clearly.

Grant and Ashford (2008) provided clear evidence that work design influences the tendency to initiate proactive behaviours and that individual characteristics can act as moderators for this relationship. Yet, not only individual traits are going to be determinant. In fact, Grant and Parker (2009) underline the importance of the social context in determining the likelihood of proactive initiative from employees: being in contact with clients or colleagues who would

benefit from their work fosters individual motivation. Receiving social support and a climate of learning also enhance the individual's willingness to take initiative (Grant and Parker, 2009). Being proactive at work can be related to the willingness of the employees of feeling that the job is "their own": they aim at being perceived as the "owner" of the job. This process of reappropriation of the job, of feeling it closer to the self, often implies going beyond the simple job description, to affirm one's competences and role, in a way that is accepted by the organisation (Grimand et al., 2017). Other people in the organization should be aware of one's expertise and appreciate it: for the individual, it is about obtaining the acknowledgement of their competences from the social context he or she works in (Grimand et al., 2017). Moreover, the process of "owning" one's job is related to the need to find meaning at work and perceive the contributions made as valuable. This is related to a process of socialization of the job and of the interaction between the individual and the social context he or she is embedded in (Grimand et al., 2017). Due to the complexity of the process, four perspectives of the reappropriations of work can be identified, following the work on the reappropriation of management tools by Grimand (2012). In particular, the reappropriation of the job can be seen as instrumental (aiming at improving effectiveness and efficiency of the actions at work), cognitive (to face the complex reality), socio-politic (building one's legitimacy in a role), and symbolic (building meaning at work and the identity at work) (Grimand et al., 2017).

6.3.2. Role adjustments, I-deals, job crafting

As a result of proactive behaviours, employees modify their roles and tasks, stretching the boundaries of their job. Clegg and Spencer (2007) were inspired by the nature of "job crafting" to discuss role adjustments, which consist of a spontaneous redesign of the job performed by the employee. When employees perform well, they are perceived as competent by their employers. This motivates the employers to trust the employees more and expand their role; employers are more willing to delegate and give employees higher responsibilities.

Good performance also indicates to the employees themselves that they are competent and productive. This enhances their self-confidence and motivation to create their own role; they are inspired to learn more in order to improve their performance even further, initiating a virtuous circle.

Conversely, argue Clegg and Spencer (2007), when individual performance is poor, individuals tend to perform less well, and such performance constitutes a signal of a lack of competence. As a consequence of that, employers would trust individuals less than before, and employees

would believe less in themselves. In this situation, employees' roles would become narrower, assignments would become easier, and there would be less autonomy; the job would be less complex and less motivating.

Indeed, "active jobs," which are complex and autonomous jobs, can be difficult and stressful, but they can also challenge the individual, increasing the opportunity for learning and development. Consequently, individuals would improve their self-confidence and feeling of mastery: hence, they would be more resilient and capable of coping with strain and stress (Karasek and Thorell, 1990).

The term "I-Deals," instead, comes from "idiosyncratic deals": it refers to mutually beneficial arrangements between the organisation and employees. They result in customised jobs, designed to better fit the employee while satisfying the needs of the employer (Grant and Parker, 2009). Some examples of I-deals can be a flexible schedule, more autonomy on the job, opportunities for learning and development. I-deals allow the employees to tailor their jobs according to their strengths and interests, with positive outcomes such as increased motivation, job satisfaction, and productivity. For organizations, even though I-deals can seem costly and inefficient, they can actually help in retaining talent (Rousseau et al., 2006). In fact, I-deals emerge particularly when employees are entitled to special arrangements or compensation as a result of their skills and unique competencies.

I-deals can be negotiated ex ante or ex post, although ex-post negotiations are more likely to happen: in fact, the employees will be able to prove their value and competence to the organisation and could have a higher margin to negotiate a special arrangement (Rousseau et al., 2006).

In the next paragraph, we will discuss the important contributions on the themes of work, autonomy, and regulations at work that come from the important French sociological tradition. Following, we will deepen our analysis on job crafting, showing the similarities with the previous tradition and the importance in the development of sustainable employability.

7. The structure of work, regulation, appropriation of work: the contributions of the French sociology, ergonomics, and work psychology

7.1. The psychodynamics of work and the clinics of the activity

7.1.1. *Crozier and Friedberg's contributions: the strategic actors. A starting point for the psychodynamics at work, ergonomics, clinics of work*

The topic of autonomy at work finds important contributions in the French tradition from the sociology and management literature. The thoughts of authors such as Michel Crozier and Erhard Friedberg influence the development of the management literature. Crozier and Friedberg break with the deterministic theories on organizations – such as Max Weber's approach, who focuses on maximising the coordination of the administrative activities and the predictability in the actors' behaviours. In fact, bureaucracy is considered by Weber as the best model for organizations, since it grants precision, predictability, equal treatment for people, and rational behaviours. Crozier, instead, points out all the problems emerging in bureaucratic organizations and focuses on the organization and the coordination of individuals among them. Crozier and Friedberg don't think that there is a *one best way* – that is, the postulate arguing that for each problem there exist one and only one good solution – as a valid proposition. On the contrary, they argue that any situation in an organization is contingent: it could have been different. Indeed, the conception of organization changes: for Crozier and Friedberg, the organization is firstly collective, and should be evaluated starting from the constraints it poses on the collective actions. Indeed, individual behaviours should be evaluated on the bases of such constraints and as a way to circumvent those. The way individuals coordinate with each other (the collective actions) depends on the relationships they have built with each other.

Actors in organizations are strategic, they are trying to gain power and do that to improve their position in the organization, despite having a bounded rationality. The organization has the goal to maximise efficiency, but has to do so in a context of bounded rationality, in which unexpected outcomes can happen, and unexpected situations can be created.

Some areas of uncertainty that are present in any organization, despite the bureaucracy tries to control every aspect. Indeed, uncertainty can be due to unexpected events, non-regulated events, external events due to some external change. When uncertainty is present in an organization, individuals try to gain power thanks to that: those who can control the areas of uncertainty can have an unpredictable behaviour and therefore negotiate better conditions within the organization.

This brief recall to the theories by Crozier and Friedberg had the goal of reminding the most important points and to introduce the following paragraphs. Here, we will explore the important contributions to sociology and management science from some currents of thoughts. The main themes we will focus on, due to the interest of the dissertation are related to autonomy at work, the reappropriation of work, the criticism to Taylorism and the quest for meaning at work people engage in.

Important contributions in this sense come from the psychodynamics of work, which was founded in the 1970s by Christophe Dejours, but from other theories too – such as Jean Daniel Reynaud's social regulation theory.

The common aspect of those theories is the attention to the individual's point of view, in an attempt to understand how the most concrete aspects of work can be evaluated. Moreover, the focus is on the intangible aspects related to work, paying attention to the value individuals bring to the workplace. Indeed, in contraposition to the Taylorism, the authors focus on how work is not only a source for income for employees, but aim at understanding the mechanisms of creation of meaning at work, identification and attachment with respect to one's job, the mechanisms of appropriation and feeling of ownership at work. A large part of the sociology of work has been focusing on the conflicts, unionism, and social dialogue, which are not the topic of this dissertation. We will focus on the notions of work, appropriation of work and feelings of ownership with respect to one's work, as well as on proactive initiative-taking behaviours from individuals, which are related to the possibility to take

Indeed, as noticed by Bernoux (2011), the focus of the sociology of work has mostly been on the conflicts between employers and employees, the classifications and the social relationships at work. Bernoux (2011) advocates for the need of an anthropology of people at work, analysing individuals in their relationship with their work and with the collectives at work. Indeed, it's the employee himself that makes sense of their work. The anthropology of people at work should be based on the appropriation of work and the acknowledgement for their work, essential elements for people to find meaning at work (Bernoux, 2011).

7.1.2. The psychodynamics of work

An important contribution on the nature of work and on the consequences of work on people comes from Christophe Dejour's psychodynamics of work, a multidisciplinary approach founded in the 1970s. This approach sees work as a source of both suffering and pleasure: at work, individuals elaborate some defensive strategies to cope with the demands of the work

while protecting their health. Dejours and Abdoucheli (1990, p. 127) define the psychodynamics of work as "the dynamic analysis of the psychological processes mobilized by the subject's confrontation with the reality of work", underlining how they deal with what a worker, willing to find meaning, realisation, identity at work, will have to face the reality of the job, in which many of the aspects are determined independently of his or her will. Moreover, Dejours defines psychopathology of work as "the analysis of the psychic suffering resulting from the confrontation of people to the organization of work (Dejours, 1993, p. 207). The main hypothesis of the psychodynamic of work is that there is a crucial relationship between how work is organized and employees' mental health. The analysis therefore, focuses on the one hand on how work can be harmful for the psychological wellbeing of individuals, and on the other hand, on the coping mechanisms individuals set up to maintain a balanced mental health and at the same time accomplishing their professional goals (Alderson, 2001).

The psychodynamics of work focuses on and interprets collective situations of social work relationships, analyzing the symbolic register present for each individual worker and highlights the influence of this on his or her mental wellbeing. Psychodynamics of work has the goal of understanding the complex relationship individuals have with their organized, structured work; for this, the approach is multidisciplinary, deals with real situations at work, drawing from sociology of work, of health, and of communication. Also, it favors a psychoanalytic perspective based on the theory of the subject and model of subjectivity (Alderson, 2001).

According to the psychodynamics, work is defined as the actions workers engage in to handle with what the prescribed organization of work doesn't provide yet (Davezies, 1991). As Dejours claims (1993, p. 220), "work is by definition human, since it is called upon precisely where the technological-mechanical order is insufficient". Work is inherently human: employees add their own contribution to their job and contribute with their subjective point of view, which is often not clearly visible. In fact, Dejours (2000, p. 16) "what one must mobilize of oneself to work well is much broader than what can be immediately subjected to observation."

Work is considered as an activity that transforms the world thanks to the individual contribution. In this way, creativity, intelligence, talent, can be expressed and realized. The psychodynamic theory of work, however, includes a third dimension – the one that allows the individual subject to be revealed to the world and transformed while transforming the world. Besides the transformative role on the environment and on the self that is attributed to work, work constitutes also a place for building and strengthening relationships. In fact, acknowledgement allows the creation of social positioning and identity (Dejours, 1993;

Alberson, 2001). Additionally, work is also "all the consequence of defensive arrangements to compensate for suffering at work, on the economy of marital relationships, relationships with children and, beyond that, on social relationships between men and women." (Dejours, 2000, p. 17).

Work has therefore a paradoxical feature, since, two different faces emerge. On the one hand, it is considered as a source of accomplishment, realization, contributing to one's health and identity. Hence, work can be a source of liberation, balance, pleasure. On the other hand, work can lead to suffering, disorder, illnesses. The psychodynamic theory of work goes beyond the mere utilitarian perspective, by "subjectivizing activity in which objective constraint and subjective process mutually support each other" (Dejours, 1995, p. 47).

An interesting point is made by the psychodynamic theory of work on the point of normality, which allows to draw a comparison with the Job Demand-Resource theory. In fact, Dejours argues that there exists no such thing as the perfect health, but that the normal state for individuals isn't without any suffering. On the contrary, it is only possible to reduce suffering with various strategies to cope with that and defend oneself. Normality itself shouldn't be taken for granted, since it is a fragile balance, but employees should carefully take care of the normality reached through much suffering (Dejours, 1995). Similarly, it is interesting to notice that neither the Job Demand-Resource Theory considers normality as a state without suffering. In fact, Demerouti and Bakker (2007; 2017) talk about a state of balance rather than normality. Balance in the JD-R approach is considered as the situation in which job demands and job resources are balanced and stable. Hence, thanks to balance coming from job resources individuals can avoid stress, strain, and eventually burnout coming from an excessive weight of job demands (Demerouti and Bakker, 2007; 2017).

Identity at work in the psychodynamics perspective

According to the psychodynamics approach, the issues of mental health are connected to those of identity, which is considered as the core of mental health (Dejours, 1993). Identity is important in the workplace: there, due to the organizational structure and to how work is organized, individuals can be torn between their own desires and what managers make them to do (Dejours, 1980; Sainsalieu, 1985). Identity changes through one's life: it is constantly evolving, hardly ever stabilized, and requires endless reassurance and validation. Identity is derived by individuals from their interactions with the others, starting from the family and close people, and enlarging the circle to the work sphere, looking for approval and acknowledgement. It is indeed the self-fulfillment coming from the personal and professional

point of view that allows individuals to construct a proper identity first and, consequently, a good mental health.

Organization of work in the psychodynamics perspective

Work as it is delineated in job descriptions is rarely exhaustive with respect to the reality of the daily activities. The psychodynamics of work has realized that there exists a gap between the work as planned for in the work organization and work as it is actually carried out in the real organization. In fact, work is considered as a set of precise activities, tasks to carry out with specific methods of working. In particular, to face the incompleteness of rules and tasks in the formal organization, people can adopt some stratagems, which consist in some ways of working that help individuals find solutions when prescribed tasks are useless or incomplete. These stratagems help workers solve the problems and find solutions that are more adapted to the field, while at the same time allowing them to be more aligned with their goals and aspirations (Alderson, 2001). In this way, workers can contribute to the good in the organization, by reducing the gap between prescribed work and the work they are actually required to do. However, the mentioned gap can help employees find pleasure and satisfaction in their activities or can cause them further suffering and distress, depending on how the organization reacts to the initiatives taken by individuals. Indeed, if the organization recognizes the value individuals can add when adapting and taking responsibility, this gap turns out to be positive for individuals and contributing to their mental health. On the other hand, when organizations prefer to exercise a strict control over employees' behaviors, by not allowing them to use their inventiveness and creativity, this debilitates employees' wellbeing and mental health.

Suffering and pleasure at work

In the psychodynamic approach at work, the concepts of suffering and pleasure are among the most important ones. Pleasure and suffering are considered from the collective point view, although the experiences are lived at the individual level. In fact, the psychodynamics of work focus on the causes of suffering or pleasure going beyond the experience of the single individuals.

Suffering is considered as inherent to any situation at work and in part to the human condition too. Suffering is defined as a condition against which individuals have to struggle to find themselves in a situation of normality (Alderson, 2001, Dejours, 1993).

They can be present at the same time and organizations can cause both of them in different aspects of their organization. The main issue in this approach comes from the relationship with the psychic apparatus of the individual and his or her work: the question is about whether the work of individuals is adapted to their psychic energy. Indeed, the problem is related to the risk

of underutilizing the intellectual potential of individuals, in terms of skills, knowledge, and expertise (Alderson, 2001).

Suffering corresponds to a state of suffering individuals find themselves in when trying to avoid illness. Suffering is connected to being bored, unsatisfied, delusional, anxious, angry, …or a lack of the positive aspects related to the pleasure at work (Dejours, 1978).

Instead, pleasure at work is considered as the opposite of the suffering and is realized once the sublimation has taken place. Sublimation is considered by the psychodynamics in the Freudian sense: as a process in which a desire that isn't satisfied is instead directed to another, different goal. Sublimation is therefore a defensive mechanism to support the wellbeing of individuals, in a process that is connected to the "Ideal of the Ego" that every individual has (Dejours and Abdoucheli, 1982, p. 121). Thus, in the context of work, the psychodynamic approach considers pleasure as a state of wellbeing from the psychological point of view. The individual feels recognized and this allows him to build their identity, but it also fosters collaboration, trust, and solidarity. The collective dimension is important too, as it allows employees to have a better experience of pleasure (Dejours, 1980).

Thus, the psychodynamics of work assesses individuals as looking for their personal accomplishment. The theoretical basis for the theory posits that each individual has the goal of accomplishing what animates their identity. They aim at pursuing their mission by contributing to the collective good (Alderson, 2001). If accomplishment at work is not possible, because, for instance, work is strictly organized and structured, the individual's psychic energy would accumulate and create a psychic tension, a suffering that could lead them towards various troubles. Instead, work is considered as creating a balance if the organization of work allows some ways to adapt the work to the desires of individuals (Dejours, 1980).

Acknowledgement

An essential aspect for the psychodynamic approach is the expectation individuals have in exchange for their work. Individuals are aiming at obtaining a symbolic acknowledgement, which comes from two main judgements: a judgement of beauty on the work the individual did and a judgement of utility (Dejours, 1993). The necessity of a judgment constitutes an important theoretical underpinning of the psychodynamic theory. Identity at work is based on the others' judgement.

The utility judgement comes from the hierarchy at work: it's someone's manager, or their employees that can evaluate them, and even the customers have a work on the quality of their work.

The beauty judgement comes from peers, colleagues and team-mates, members of the community (Dejours, 1993). The judgement of beauty includes a first part about the compliance of the work to the esthetic rules, and a second one is about the appreciation to the specificity of the work, its uniqueness and style. The judgement of beauty grants the individual the acknowledgement of his or her uniqueness, which is crucial for the development of their identity and to generate pleasure (Dejours, 1980).

Autonomy
An important theoretical underpinning of the psychodynamic approach to work is related to the fact that work can go beyond its prescription, with a personal investment in the work by employees (Alderson, 2001). Indeed, jobs leaving a high room for autonomy, demanding individuals to use their creativity and innovativeness allow them to find more accomplishment and this contributes to the creation and consolidation of their identity. In fact, managers can foster the feelings of autonomy and ask their employees to be more proactive and take more initiative with the ultimate goal of fostering their self-accomplishment and their development. The opposite, instead, can cause various problems: in fact, when individuals are not granted much autonomy or creativity, work is rigid and strictly organized, then it gets harder for individuals to maintain balance and mental health. In fact, too much strictness and control in the organization can lead to suffering (Dejours, 1980).

7.1.3. A clinics of the activity

The clinics of the activity and the meaning of work
Work is more than having an income. Work has a meaning, even though it is not easy to detect, both for the individual and from the social point of view (Clot, 2003).

As Clot reminds (2015), one of the most poignant critiques to Taylorism is the one carried out by Wallon (1947). In fact, Wallon argues that Taylorism had, instead of making people able to work like machines, contributed to impose what he tended to ignore: indeed, to focus on the Taylorism prescription, humans have to suppress their subjective point of view.

Yves Clot examines the meaning of work (1995), arguing that meaning comes from a relationship between the vital motivations that push the person to act and the immediate goal of their actions. In the work activity, the development of actions are directed by efficiency and effectiveness.

Acording to Clot (1999), work is a directed activity, at least in the sense that it has a receiver. Moreover, it is directed in three ways: it is directed to manage the person, through the task

towards the others' activity. First, the receiver is the individual himself, since the individual aims at underlining, in their working activities, the meaning if their existence. But work is also directed to the topic of work through tasks, often fixed and prescribed. It is this prescription that shows, both to managers and workers that the exchange between them consists in work itself, as a subordination. Moreover, the work activity is directed to others, after the work has taken place. Work is an activity since it is a meeting point for one's activities and the others' (Clot and Litim, 2003, p. 1542). However, the dichotomy doesn't exist only between the organization of work and the individual's activities, argue Clot and Litim (2003), since the work includes another dimension, which is related to the reorganization of collective tasks, a reshaping of the organization by the people in the organization. Clot (2003, p. 1524) calls this aspect the social genre of the profession or the professional genre, which consist in a set of obligations that those who work together have to do, recomposing their activities in the context they are working on, through a set of impersonal, unwritten rules that define a certain social context, in a way to define the social relationships among people to work together in the world. The goal of the professional genre is to accomplish the tasks more easily and efficiently, and can be changed by the individual who takes the initiative for that. Indeed, conclude Clot and Litim (2003, p. 1543), the genre participates to the creation of meaning at work, since people can add their "personal touch", their personalization to this reorganization in the context.

Clot examines the activities themselves and notices that the work activity is not only what is done, a realized activity, but also what is not done. The clinic evaluation of the activity distinguishes between the realized activity and the reality of the activity to understand what provides meaning. The reality of the activity includes also what the individual wanted to do without managing to, what is not possible to do, what individuals do to procrastinate or avoid their main duties, or what people do without knowing that they are doing it (Clot and Litim, 2003, p. 1544). Then, argues Clot, to better understand the concept of meaning of work, it is important to take into account all the suspended, thwarted, or prevented activities, even the counter-activities, which weigh with all their weight in the current activity (Clot and Litim, 2003, p. 1544).

Considering the importance of meaning at work, and the fact that being employed is more than merely having a job, but it includes also the feeling of being productive in the society. Being unemployed entails a "derealization" for the individuals. In this sense, Clot reminds how the psychopathology of work is pertinent, as it focuses on the behaviours individuals set up as defense mechanisms against the suffering of work, and the main, original suffering is the quest for meaning at work (Dejours, 1993; Clot, 2003). As Clot reminds, work is a major component

of the human and social life, and individuals find it hard to separate from work without losing the feeling of social utility, the perception of contributing to the social utility. Work itself leaves marks on the society: hence, work has a meaning for the individual and the society. In fact, work influences both the worker himself, the others, and the environment surrounding him or her. Work is about being part of a collective history, to which individuals contribute by adding something that comes from them (Clot and Litim, 2003, p. 1545).

An interesting observation Clot and colleagues (2003) propose is about the importance work can have in people's life in these days. In fact, he argues that the variety of activities people engage in could lead to think that work has a lesser importance, but, on the contrary, this variety of activity reinforces the psychological function of work. Individuals expect that work could offer them not just a way to survive, but the power of doing something important in their life, being "the subject of their story" (Clot and Litim, 2003, p. 1545). In this case, work can lose its meaning, if there is lack of coincidence between the personal meaning and the social meanings – that is, if the individual feels that their work is meaningless or not aligned with their quest for meaning. On the contrary, if work promotes the individual's self-realization, its importance becomes central and pushes on the sides the other activities of life, though contributing to their development. The condition for this to happen is that work contributes to the personal development of the individual. However, the meaning of work isn't considered fixed, but requires a constant revisioning and recomposing (Clot and Litim, 2003, p. 1545). In fact, in the perspective of the clinics of the activity, the issue of acknowledgment is somehow peculiar. In fact, Clot (2015) underlines of this perspective goes beyond the psychodynamics of work (Dejours, 1993): he argues that acknowledgement represents the possibility for workers to recognize themselves in what they are doing. This process will make them feel unique in their activities and in their professional genre.

The importance of a "well done" work

An important observation Clot adds is about the importance of a work "well done" (2013): this consists in the possibility for the workers to "achieve the objectives they have or someone assigned them. This implies that workers can judge what they do, judge what their colleagues do, deliberate with them on the meaning of their activities, think and rethink individually and collectively their activity, correct it or make it evolve" (Clot, 2013, p. 25). A job "well done", according to Clot's definition, represent an intense activity for the worker, at the individual and at the collective level. Such intensification is, however, positive according to Clot (2013): in fact, when an intense effort is connected to the attainment of good results, it has positive effects – if the individuals can rest in between. It is in the lack of linking between the effort and the

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result that stress is generated, with negative effects on the workers' health (Clot, 2013). According to Clot, stress can be intended as a lack of resources to face the needs of the organization, but it can also be due to the fact that the organization doesn't have the means to allow its employees to perform a job "well done" (Clot, 2013). Hence, to safeguard the workers' health, it is important to consider not only the psycho-social problems related to work, but the issues coming from the organization as well. Clot aims at pointing the attention not only on the quality of life at work, but also on the quality of work itself, which is the "connection between health and performance" (Clot, 2013, p. 26).

7.2. The Social Regulation Theory

Jean Daniel Reynaud elaborates the Social Regulation Theory, an important theoretical framework directed at understanding how rules are produced in a society and especially in the situations of work. Reynaud's work start from the work by Michel Crozier and Erhard Friedberg and the theory of strategic analysis. According to Reynaud (2004; 1988), individuals are rational in their decisions and behaviours in a certain situation, even though such rationality is bounded. Hence, individuals act "for good reasons", and their decisions are meaningful for them.

Individuals interact with others in a system, which is global and coherent: from this point of view, Reynaud's theory has the systemic dimension that characterized Crozier and Friedberg's work.

According to Reynaud (2003), individuals interact in a social system, which is characterized by rules dictating how they should behave. For Reynaud, rules are principles of the organization, that have the goal of orienting the actions and regulating the interactions among individuals. The regulation, instead, guarantees the evolution and permanence of the various rules.

There is not a global regulation system that encompasses all the other regulation systems, but there are various regulation systems that are concurrent or can be opposed to each other. There are indeed various regulations that can coexist. These regulations can balance the individual behaviours through rules, which constitute a social constraint under each interaction. The rules are defined by the constraint they pose and by the sanctions they can pose on the individuals. These aspects provide the rules with legitimacy and establish a social order, which can be maintained by making sure a specialized body ensures the respect of the rules, and by the double controls made by external entities (Reynaud, 1979).

According to Reynaud, the social regulation, an activity based on producing rules, can be present in three different modalities, which constitute complementary ways to produce rules in an organization (Reynaud, 1988). The actors' strategies are expressed by the regulations, which have the goal not only of pursuing the objectives of the parties, but also the totality of the actions. First, there is a control regulation, which consists in imposing duties and discipline to individuals. This is decided by the business leaders when planning a strategy, with the main goal being controlling individuals' behaviours and making sure a discipline is enforced. The management imposes a set of rules, processes, objectives, and management tools that allow the company to pursue its strategic goals. Moreover, these rules have the goal of making sure the practices are homogeneous, sharing a common feature for all the actors.

Second, is an autonomous regulation, which has a bottom-up direction. Autonomous regulation is promoted by individuals in an organization, who aim at maintaining their autonomy as much as they can. Therefore, they exploit their organizational leeway to disobey to the bottom-up rules, to go beyond the prescriptions of the top-down rules, and to create new ones. Reynaud reminds that the possibility for the autonomous regulation to emerge comes from the limitation of Taylorism. Indeed, reminds Reynaud, Taylorism would aim at even limiting the individuals in their thoughts and their ideas in the workplace, but without success. Indeed, that assumption is not realistic: individuals aim at reinforcing their own independence and do that by creating an autonomous regulation, which is fostered by the collectivity of employees and unions (Reynaud, 1988).

Third, autonomous regulation and control regulation interact: such interaction comes with tension and even conflicts. The resolution of such conflicts come as a combination of the two types of regulation – a "joint" regulation or "real" regulation. In this case, the autonomous regulation can help "soften" the harsh rules coming from the top management and making them more acceptable. The management would benefit from such acceptance, at the cost of accepting the local adaptation of the formal rules. Hence, workers would be let modify the rules, and this would be helpful for the management too. This third form of regulation, called joint regulation, can come from a negotiation, more or less formal and official, between the various groups whose interests are colliding. The joint regulation, therefore, represents a solution to the conflicts between the two types of regulation and hence the collectives. It is important that the joint regulation includes all the important stakeholders, identifying and managing the valuable activities for people, and finding compromises between all the interests. However, the regulations in a firm do not result necessarily in a coherent, clear set of regulations. Rather, they happen to be the result of an accumulation and a combination – not necessarily ordinated

– of rules and practices that, for their very nature, are different and even opposite (Reynaud, 1979).

The autonomous and the control regulation are what the actors can accept from the rational point of view, with the goal of maximizing the goal of the organization, although this is not the only point of such organizations. The confrontation between the two types of regulation is present in any relationship with power. Indeed, the hierarchical relationship in organizations represents a clear example of the relation between the two regulations (Reynaud, 1988).

The management tools, says Reynaud (1988, p. 17) "are a good witness of these regulations and often reveal the complexity and the heterogeneity [of the regulations]".

Moreover, Reynaud underlines how the regulations in an organization can be about a variety of objects, such as the methods of work, but also salaries, promotions, new techniques, sharing responsibilities. The domains of the regulation can be strictly interdependent, but the ensemble will not be a totally coherent bundle, which could be also due to the presence of a variety of external constraints (Reynaud, 1988). Reynaud (1988) reminds that different regulations may be interested to different object in the same domain, which is valid both for control regulation and the autonomous one.

Reynaud precises also that the regulation doesn't come from an established group with homogeneous interests. Rather, the activity of regulation constitutes a social actor, which defines its limits and width, explicates its structure: it is a social actor that becomes part of the social game.

7.2.   Ergonomics

Ergonomics is based on setting up a socio-technical system according to some criteria that are linked to the agent's wellbeing and their efficiency (Clot and Litim, 2004). Ergonomics, among the French scholars, considers the difference between the prescribed job, or the task, and the real activity that is carried out. Clot and Simmonet (2015) underline the closeness of ergonomics and psychology, emphasizing the fact that both of them address the improvement of individual well-being and working conditions. And it is in this gap between the prescribed work and the realized work that the meaning of work can be realized (Clot and Litim, 2004). Working consists, in any case in a re-conception of tasks to better adapt them to the service of their own activity or to what they share with others.

Falzon (2004, p. 17) reminds that the French society for ergonomics proposed a definition of ergonomics in the 1970s: "ergonomics can be defined as the adaptation of work to man, or,

more precisely, as the setting up of scientific knowledge about humans and necessary to create tools, machinery and devices that could be used with the maximum comfort, security, and efficacy". This definition of ergonomics compares it as a transformation of situations and devices, attributing it a practical rationale. Instead, the definition by the International Ergonomics Association in 2000 considers ergonomics as the scientific discipline that aims at understanding the interactions between individuals and the other components of a system, and the profession that puts in practices the theoretical data with the goal of improving and optimizing people's well-being and the performance of the system (Falzon, 2004). Ergonomics develops a holistic approach to humans, considering their physical, psychological, social dimensions, while at the same time applying the results of the studies through a set of techniques. Ergonomics is characterized by two different objectives, often in conflict. First, ergonomics focuses on the performances – for instance, through productivity, quality, reliability. On the other hand, ergonomics focuses on people, and especially on their health, security, satisfaction.

Falzon (2004) underlines that the first important observation in ergonomics is the distinction between the displayed task (explicitly prescribed) – what individuals are officially asked to do – and the expected task (implicitly prescribed) – that is, what individuals should really do, considering the technical and organizational variability. The prescribed task, claims Falzon (2004) is what is expected from workers, and it combines a displayed task and an expected task.

Second, the task that is observed in the activity or is declared by the workers doesn't correspond to the prescribed task. In fact, workers don't follow all the constraints: they do that to minimize the need for those constraints, or because not following them seems to have some positive effects (Falzon, 2004). They might even add constraints to improve the quality of their activities or avoid being dependent on their colleagues. Thus, the effective task is constituted of the constraints the individual chooses; the effective task is the result of a learning process by the worker.

Hence, Falzon (2005) underlines that the main goal of ergonomics is predicting usages. To do this, three approaches can be used: first, the classic approach (or analysis of work), which considers a conceptual analysis, by constituting some a priori systems based on a coherent prevision of needs and behaviours. Second, the approach of adaptable systems – in this case, the central claim is that the conception is created during the usage. The idea is to define the systems so that they encourage further development (Daniellou, 1992). Third, the developmental or constructivist approach, which considers the two previous systems as

incomplete or unrealistic. Thus, the development process should be favored during the conception (Falzon, 2005).

Ergonomics, therefore, focuses on the professional competences in their relationship to the realization of work – that is, on the work in a certain situation. Competences are thus a multidimensional concept, that is specific to a situation (Vidal-Gomel and Delgoulet, 2016). Moreover, the competences are considered as the result and some resources for the activity. They are not connected only to the realization of a task, or to the level of expertise. In fact, ergonomics doesn't focus on the evaluation of the individual at work, but it does focus on the hidden dimensions of the competences (Vidal-Gomel and Delgoulet, 2016).

Falzon (2005) proposes a connection between the goals and methods in the ergonomics approach and the theory of social choice proposed by Amartya Sen (1999).

In Sen's model, as we mentioned previously, the central idea is the capability, intended as the set of human functioning that are available to an individual, the real possibilities one has to create something valuable. The capabilities should be able to offer each individual the possibility to choose and offer them the possibility for personal development. This results in freedom and well-being, which come from the very process of having the possibility to choose (Sen, 1999).

According to Falzon (2005), various points in common can be found between the capability approach and ergonomics: indeed, Falzon argues that "the effects of the ergonomics interventions can also be considered as a way to attribute power to individuals and organizations, to give them some additional tools to improve" (Falzon, 2005, p. 8). In fact, acquiring new competences or giving workers some freedom can be seen as a way to improve capabilities by enlarging the number of possible options.

7.3.   The reappropriation of work: a common theme

7.4.1. The importance of autonomy and organization of work in the sociology of work

Bernoux (2011) underlines the importance to focus on the work itself. He insists on the difficulty of evaluating the concrete dimension of work: indeed, he reminds that the sociology of work has focused on work "as an indicator of the working life, the conflicts, the class struggles, the human communities born at work, the social relationships of production, classifications and qualifications" (Bernoux, 2011, p. 159). He argues that work itself is underestimated, as it is hard to grasp its concrete dimension (Bernoux, 2011).

According to Bernoux, the new management tools increase the capitalistic control on workers. Indeed, due to these tools, their autonomy is very much reduced: due to the increased stress, they find it harder to "refuse these tools, resist to them, transform, change them, or adapt" (Bernoux, 2002, p. 79), even though they refuse to adapt to this control. Their autonomy is thus progressively reduced. However, individuals do deviate from what organizations expect them to do and act in another function, with a different objective than what the organization assigned them (Bernoux, 2002; 2005).

As Bernoux reminds (2011, p. 160), workers do change the rules of work, in such a way that allows them to be more effective in their operations and to exploit their expertise and the rationality they set up. This willingness to challenge and change the rules comes from the need to adjust the production more closely as it should be and at the same time show their expertise, which is often ignored by the system, going beyond what the institution had projected (Bernoux, 2002).

Bernoux discusses the forms of management in which much importance is given to the new management tools, in which the management see a great potential for innovation. At the same time, managers expect great contributions to innovation by employees (2011). However, Bernoux rightly points out that "poorly motivated employees no longer display innovative behaviour" (2011, p. 94). He underlines the suffering of employees who have to bear innovation and changes imposed in a top-down direction and in a context of extreme competition with other companies. Thus, Bernoux emphasizes that "changes and innovations cannot be imposed, they are produced in interactions. Likewise, new management tools do not produce by themselves the performances that their authors believe they provide. They only do so if they are transformed by those who implement them. Change in organizations is possible if it is seen as joint production in daily interactions" (Bernoux, 2011, p. 95).

7.4.2. The reappropriation of work

The theoretical frameworks presented above increase the understanding from the sociological point of view of the mechanisms that regulate the relationship between individual and work in organizations. Although these theoretical frameworks have different perspectives and postulates, they share a variety of aspects. Indeed, all of them bring a harsh criticism to Taylorism, highlighting the failure of the scientific management in limiting employees' will and thoughts. Thus, in different way, they emphasize how people are attached to their work and engage in some forms of personalization of their job, in an effort of reappropriation of their

work. Following, we are going to explain how the reappropriation of work can actually be realized in the perspective of the employees. Finally, we are going to explain how this can be connected to put people in the condition of capability.

Bernoux (2011) reminds how the criticism towards Taylorism has been important in the sociological tradition, and adds to those criticism by adding a meaning to those behaviours. Dejours (1993, p. 4) underlines how work doesn't correspond to the Tayloristic point of view: works is described as "the coordinated activity deployed by men and women to face what, in an utilitarian task, can't be obtained by the strict execution of the prescribed organization". Moreover, Dejours and Gernet (2012, p. 17) add that work is not reducible to the total prescription, as ergonomics and psychodynamics of work point out. Work includes also an involvement of the worker, in a quest of the best possible compromise between what is demanded by the tasks and what the individual wants.

Grimand and colleagues (2017, p. 98) indicate how the process of appropriation comes from a confrontation between constraints and habilitation: in fact, appropriation has to combine a preexisting set of resources and logics which determine some constraints. Moreover, the dynamic of appropriation transforms the situation at the same time in which it transforms the subject. Dejours (2016) sees the reality "as an obstacle, as unforeseen, as unpredictable, as an experience of loss of control, as a source of suffering, as an obligation to cheat, as a summons of intelligence" (Dejours, 2016, p. 82).

Indeed, workers who appropriate of their job show they have a rationality for an efficient production, which is often denied by the hierarchy. In fact, points out Bernoux (2011, p. 160) "rationality is not only the prerogative of management or design offices. It is also on the side of the performers in their work activity." The reappropriation of work is considered by Bernoux as a set of behaviours of mastering objects and relationships surrounding the concrete work activity. In a variety of ways, the behaviours of reappropriation of work are persistent, especially due to the lack of trust in workers, who are expected by the managers not to follow what they are asked to do. This lack of trust comes from a schematic vision of the human nature, argues Bernoux (2011). The author reminds Mc Gregor's Theory X and Theory Y and his analysis on the assumption about human nature by managers. In fact, managers following an approach à la Theory X (Mc Gregor, 1960) believe that on average individuals don't want to work, and will do everything they can to avoid this, as well as avoiding challenges and responsibilities. People should be controlled, and sanctioned if they don't want to work. To cope with these behaviours, management should be strict and controlled, with prescribed, harsh rules. Mc Gregor's view, instead, believes that for human beings physical work, as well as

mental work, rest, and play are equally important. Bernoux (2011) underlines how these features are often not acknowledged yet, and a "schematic vision of the motivations of human action, crystallized in the industrial age, continues to shape the reasoning of the age of services and new technologies" (p. 161). Instead, hierarchy should accept the behaviours of appropriation of work, when these make sense with respect to the production process. This is a way of acknowledging the quality of work (Bernoux, 2011). When the appropriation of work, space, and time is accepted, allowing employees to have their own peculiar way to adapt their work activity, can increase the meaning of work. Work gains in meaningfulness, and workers appreciate the quality of a work that is "well done" (Clot, 2013).

The appropriation of work passes through a variety of mistakes and failures: the individuals realize the distortion between the prescribed and the real work and find a way to cope with that (Davezies, 1993). Both the psychodynamics of work and ergonomics have shown how complex work can be, highlighting the difficulties and harsh dimensions of work which can even cause suffering to individuals. Workers are prepared both from the physical and the spiritual point of view, and need to be able to combine different set of resources at their disposal to overcome the situation and face their constraints (Grimand et al., 2017).

It is through the management's acceptance of the reappropriation of work by the employees, that the legitimacy of this meaning is granted, in a situation in which they believe they are losing it. And the management can build his authority by recognizing the need to give meaning to work and by approving the appropriation by employees (Bernoux, 2011). Bernoux (1979) underlines also the importance of the collective dimension in the reappropriation of work. Such reappropriation "defends the objects of work, since its relationship with these objects make it exist. It is both a psychological perspective of identification and a sociological perspective of the constitution of the group" (p. 85). Hence, the organization is a collective framework, without unique objectives: individuals and groups create a hierarchy of the objectives of the organization and adapt their action accordingly. The actors create some alliances according to some common objectives, and gather around those. The common interest of a group is sufficient to define them and this results in a competition for power. Indeed, Bernoux underlines the importance for the logic of appropriation of creating some collective practices. Resisting to the hierarchy allows to create a domain in which the individual identity and social acknowledgement find their place (Bernoux, 1979, p. 88).

The appropriation of work includes a discussion about rules: according to the social regulation theory (Reynaud, 1979), the autonomous regulation emerges as a response of strict rules. The autonomous regulation doesn't necessarily have the objective to reject the control regulation;

instead, the goal is often to improve the efficiency in the production, and to research an improvement for the collective. However, the appropriation of work entails a learning process and a process of transformation of the self (Dejours, 2009): as Clot (1999), work involves working on themselves, on the others, and on other things. Grimand and colleagues underline that the process of "owning" one's job is related to the need to find meaning at work and perceive the contributions made as valuable. This is related to a process of socialization of the job and of the interaction between the individual and the social context he or she is embedded in (Grimand et al., 2017). Due to the complexity of the process, four perspectives of the reappropriations of work can be identified, following the work on the reappropriation of management tools by Grimand (2012). In particular, the reappropriation of the job can be seen as instrumental (aiming at improving effectiveness and efficiency of the actions at work), cognitive (to face the complex reality), socio-politic (building one's legitimacy in a role), and symbolic (building meaning at work and the identity at work) (Grimand et al., 2017).

7.4.3. Power to act: a way to the reappropriation of work

Bernoux explains that it is through the power to act (or operational leeway) that the reappropriation of work is possible. Power to act consists in "the effective range of action of the subject or subjects in their usual professional environment" (Bernoux, 2011, p. 162). Reappropriation of work is related to controlling the environment with the goal of doing well one's job, in a way that the operator can identify. Through the concept of the power to act it is possible to understand the relationship between man and work, the meaning attributed to work, and the relationships with the others in the workplace. The work activity goes beyond the prescription of work – rather it contributes to the individual's self-fulfillment in the individual's social relationships and in his quest for identity. Therefore, argues Bernoux (2011, p. 162), appropriation is based on the idea that man find in his work activity, in what he does concretely and in what he does with others, a meaning in the work itself". In Clot and Simmonet's perspective (2015), the power of act is considered through the lens of how individuals can influence and engage with their work: the authors underline how the power to act is not only a personal attribute but is influenced by the circumstances in the working environment. Hence, the power to act is dynamic, and can be either enhanced or hindered by the individual's interactions with the work context. According to Clot and Simmonet (2015), the feeling of efficacy is essential for the power to act: indeed, it isn't only about the meaning attributed to the work activities, but also about the efficiency in performing them (Clot and Simmonet,

2015). As mentioned previously, the power to act is essential both for the productivity, well-being and health: it is important to consider the meaningfulness of the actions, and at the same time their efficiency (Clot, 2013; Clot and Simmonet, 2015; Clot, 2003).

Clot and Simmonet (2015) identify three categories of operational leeway: Organizational leeway, which indicates the organizational latitude; Collective leeway, which refers to the collective scope; Personal leeway, referring to the individual decision-making. The three types of operational leeway help employees develop their abilities to act efficiently and effectively: they are functional conditions to expand the range of possible activities, contributing to increased efficiency, effectiveness, and well-being in an organization (Clot and Simmonet, 2015).

Bernoux argues that the power of action and the participation are key for the employees and their possibility to find meaning at work. Indeed, taking part in the decisions regarding the work itself is a key aspect for his relationship with work. Bernoux underlines that such decision-making power doesn't concern necessarily the complex decisions, but rather the work activities and the power to act itself. Without these, the individual doesn't feel that his work is recognized (Bernoux, 2011). Such acknowledgement is essential for people: it is the basis for individuals to engage in work and feel that such work is meaningful. Being proud of a work that is well done is about having a "real job", which is crucial for individuals' wellbeing. Bernoux (2011) underlines the classical distinction between the task and the real activities – that is, between the prescribed work and the real work, claiming that, to grasp the difference between the two, it is interesting to wonder "what is there to do, and how are the workers doing it?" (Bernoux, 2011, p. 167). This is similar to the difference between prescribed work and effective work in the ergonomics perspectives, but also in Clot's clinic of the activity perspective. Indeed, Clot observes a dichotomy at work between what is done and what is not done, arguing that both the aspects contribute to the creation of meaning (Clot, 2003).

It is in the imposition of the gestures of work that the Taylorism has caused the most damages, and not only the fact that it leads to an inability to think (Bernoux, 2011). In particular, Clot (2015) reminds that the main issue for workers is the loss of the power to act for the individuals. While Taylorism aimed at dividing individuals from their thoughts, it actually proved the opposite: for people to find meaning in their work, they just need a meaningful link between a person and his or her job. The analysis conducted by Dejours on how people manage to remain "normal", interpreting their work from the social point of view and attributing it a meaning. For Dejours, work corresponds to the organization of what is not considered in the mere

execution of the tasks that should be executed. Thus, work gains meaning only if the worker can find a meaning in his or her work: in this sense, work can lead people to the self-realization. Bernoux (2011) drawing on the proposals by Dejours and Clot, observes the relationship between people and their work and suggests the need for an anthropology of work, which should be based on the appropriation of work and the acknowledgement of the work accomplished by workers.

8. Job Crafting

As stated in the preceding paragraphs, a critical point in job design theories is how to design jobs in such a way that efficiency and effectiveness are maximised while employees are satisfied in their work and can find room for personal and professional development.

The proactive perspective on job design points out the importance of letting employees take actions on their own. When they have a good amount of autonomy and responsibility in their job, employees can adjust their role to make it suit them better or reach personalised I-deals with their employer. A third important point of the proactive perspective on work design is "job crafting". It consists of actions taken by the employees themselves: they can modify their jobs in a bottom-up fashion through a continuous process of adjustments to make them better suit their needs (Wrzesniewski and Dutton, 2001).

The concept of "job crafting" was introduced in 2001 by a seminal article by Amy Wrzesniewski and Jane Dutton, who establish the foundation of the theory by drawing from research findings that show how people don't always enact the job description but rather engage in activities directed at modifying their job according to their preferences, necessities, or values (Berg et al., 2008). Hence, Wrzesniewski and Dutton (2001, p. 179) define job crafting as "the physical and cognitive changes individuals make in the task or relational boundaries of their work" (Wrzesniewski and Dutton, 2001, p. 179): job crafting is an informal process where the initiative is taken by the employees to "shift and push the tasks and relational boundaries of their work, potentially introducing a new understanding of what may be considered the entity of work" (Slemp, 2016, p. 343). Hence, employees take the opportunities they have to modify their job according to their preferences, by changing the tasks and the interactions at work (Berg et al., 2008).

In fact, as Berg and colleagues (2010) noted, everyone has different preferences, and organisations find it challenging to design jobs so that they are ideal for every employee. Instead, if employees are given the room to craft their work, job design is not fixed but can be

adapted to fit the changing needs, preferences, and motives of the employees. Moreover, Berg and colleagues (2013) remind that employees can "leverage on the unique knowledge they have of their jobs and themselves to craft their jobs in a way that creates more meaningfulness" (Berg et al., 2013, p. 84). The authors give the example of a history teacher who has a strong passion for music and who manages to craft his work to make music a part of it: for instance, he would engage in task crafting by including music in his curriculum, in relational crafting by collaborating with the music teacher, and in cognitive crafting by thinking of the experience of teaching as a performance, as if he were performing music. In this way, the teacher could bring into his daily worklife an important dimension of his personal identity—being a musician and performing—thereby increasing the meaningfulness of his job (Berg et al. 2013, p. 84; Berg, Grant, and Johnson, 2010).

Employees working in several different organisations are involved in job crafting activities, both in jobs designed to allow a great deal of autonomy and discretion but even in more strictly organised jobs, some forms of job crafting are present, and managers should be aware that such behaviours are going to be present, whether sanctioned or not (Berg et al., 2010). As underlined by Berg and colleagues (2013), job crafting is a continuous process rather than a punctual event and is based on ongoing modifications; it is "a path to meaningfulness in the modern work context" (Berg et al., 2013, p. 4). Hence, the "…freedom to take initiative opens up opportunities for employees to create meaningful experiences for themselves through job crafting" (Berg et al., 2013, p. 4).

Job crafting, as noticed by Dubbelt and colleagues (2019, p. 300), was born as a response to the fact that "a top-down approach to meeting the needs of all employees is no longer a feasible option for organizations" Therefore, employees initiate modifications, affecting "work motivation, career development, and task performance", so that they can "create the work environment that is beneficial to them" (ibidem). As Demerouti (2014) explains, organisations are aware of the need for well-designed jobs and working conditions to sustain motivation and engagement at work and often try to redesign jobs in a top-down direction so that improvements in both motivation and performance can be found; however, difficulties in effectiveness are found due to the "unique constellation of working conditions prevalent in each job" (Demerouti, 2014, p. 237). Hence, the bottom-up approach to redesigning jobs should be encouraged by the organization, argues Demerouti (2014): "job crafting represents employees' behaviour that has been recently recognised as something that organisations can stimulate to improve the working conditions for their employees by encouraging them to do so themselves" (p. 237).

8.1. Two main perspectives of job crafting: the role-based and the job demand-resource model

Two main models are present in the theories of job crafting: role- and resource-based job crafting. The former is the one elaborated by Dutton and Wrzesniewski (2001), mostly based on the literature on motivational job design (Berg et al., 2010; Sturges, 2012; Wrzesniewski & Dutton, 2001): it focuses on "individuals' work roles and the changes they make to the boundaries of the task, as well as the relational and cognitive domains of work" (Bruning and Campion, 2018, p. 499). The latter, instead, draws from the job-demand resource model of burnout, proposed by Demerouti and Bakker (2007), referring to the literature of job design based on resource management (Tims et al., 2012): job crafting is presented as "an individual proactive strategy used to seek resources and avoid demand" (Bruning and Campion, 2018, p. 499). Bruning and Campion (2018, p. 500) provide a more comprehensive definition: embracing the two perspectives of job crafting, they define it as "the changes to a job that workers make with the intention to improve the job for themselves". The changes that are made can be "structural (i.e., physical and procedural), social, and cognitive" in nature (ibidem). Both perspectives, role- and resource-based, are related to "general outcomes of enrichment, performance, strain, and engagement" (p. 500), but they differ in the focus of how the job content is altered (mostly the boundaries in the former perspective and the demands and resources in the second one) and the importance given to enrichment or efficiency (Bruning and Campion, 2018, p. 500).

8.1.1. The role-based perspective of job crafting

Wrzesniewski and Dutton (2001; 2013) proposed the concept of job crafting on the basis of a role-based viewpoint. Individual characteristics (values, expectations, personality) and work characteristics (tasks and social interactions at work) are argued to diminish the role of employees "in actively shaping both the tasks and social relationships" that make up a job, despite the fact that "even in the most restricted and routine jobs, employees can exert influence on what is the essence of the work" (Wrzesniewski and Dutton, 2001, p. 179). The "raw materials" that employees utilise to shape their employment are the "the works tasks and interactions that compose the days, the jobs" (ibidem). So, individuals can act as "job crafters" defining and executing the job, according to Wrzesniewski and Dutton.

Hence, argue Wrzesniewski and Dutton (2001), job crafting is constituted by the actions undertaken by employees to change the design or the environmental context of their job: job crafting captures "the actions employees take to shape, mould, and redefine their jobs" (2001, p. 180); therefore, job crafting is a psychological, social, and physical act, in which cues are read about physical boundaries of the work and are interpreted by motivated crafters" (p. 180), who act on the tasks and relational boundaries of the job and transform their identities and meanings, creating "different jobs for themselves within the context of defined jobs" (p. 180). According to Wrezniewski and Dutton (2001), job crafting can address several dimensions of the job, including physical, relational, and cognitive boundary adjustments.

First, physical adjustments of the job include "changing the number, scope, and type of job tasks" (Wrzesniewski and Dutton, 2001, p. 185), which suggests that the employee's action focuses on the fundamental content of the job, altering its bounds to "create a different job" (ibidem). In this instance, it pertains to modifying the "physical or temporal" aspects of the task (Wrzesniewski et al., 2013, p. 283). Employees can add or remove certain responsibilities, altering the physical aspect of the job. Similarly, improvements can be achieved on the job by people focusing more on certain parts of their work and devoting more time and energy to them. Such behaviours that constitute task crafting include, for instance, increasing the complexity of some jobs, elevating the significance of those that are more fun, and expanding the scope of the job activities, even if they are not required by the job (Slemp, 2016).

A second form of job crafting is relational crafting, which involves "initiating changes to the social features of working" (Slemp, 2016, p. 344), altering the nature and scope of the relations prescribed by the job in terms of quality, quantity, or both (Wrzesniewski & Dutton, 2001; Wrzesniewski et al., 2013). For instance, some new relationships can be established by workers, strengthening relations while reducing and avoiding the toxic and draining ones; in fact, the way in which relations are managed on the job can strongly change the perceptions and experiences of the job, developing a deeper sense of meaning and awareness of the impact of the role on others (Slemp, 2016; Wrzesniewski et al., 2013). For instance, Wrzesniewski and Dutton, in their studies, report the case of hospital cleaners who take care of patients and build with them and their families a relationship based on their willingness to soothe, showing how this is important to them. Thanks to these relationships, the hospital cleaners manage to overcome the perception of themselves as simple cleaners and see their jobs as "helpers for the sick", feeling involved in the healing process of the patient (Wrzesniewski and Dutton, 2001, p. 186).

Third, cognitive crafting "refers to shifting the cognitive boundaries that attribute meaning or significance to the tasks or relationships within the job" (Slemp, 2016, p. 344). This can entail modifying the way one thinks about and perceives the job—as a sum of different tasks or as a whole (Wrzesniewski & Dutton, 2001), or attributing meaning and importance to the job in itself (Wrzesniewski et al., 2013). In fact, the authors describe this process as a changing of "the cognitive task boundaries of the work"—that is, "altering how they parse the job. Changing the view of the job in this way fundamentally changes how employees approach the job" (Wrzesniewski and Dutton, 2001, p. 186). For example, the authors report how nurses in the hospital could change the perception of their job if they started paying attention to all the insignificant tasks and information that could contribute to taking care of the patient more effectively. Therefore, they give more value to their job, appreciating how their support is important for the patient and giving value to the highly technical therapies they give them (Wrzesniewski and Dutton, 2001, p. 186).

Figure 3, presented following, shows how the process of job crafting can change the working activities for an employee, in this case a cook (Berg et al., 2007). The case presented by Berg and colleagues (2007) highlights how both the "before" and the "after" diagram group the activities together in the effort to perceive cooking as a form of art. The authors also underline how the resources are the same before and after the job crafting process: what changes is how they are arranged and used, to exploit them as much as possible. In this example, moreover, the three forms of job crafting (task crafting, relational crafting, and cognitive crafting) are present: they are interconnected and can reinforce each other (Berg et al., 2007).

Figure 3. Illustration of Job Crafting process using the building blocks analogy (from Berg et al., 2007).

Cook's Job Design <u>Before</u> Crafting

Order necessary supplies

Keep kitchen clean and orderly

Prepare dishes on time

Communicate and cooperate with co-workers to ensure quality service

Role: Make quality dishes in the appropriate amount of time while complying with health standards

Exposure to Resources:
- Food
- Equipment
- Co-Workers
- Customers

Cook's Job Design <u>After</u> Crafting

Seek feedback by interacting with customers about culinary artwork

Creatively prepare dishes on time in an artistic fashion

Order necessary supplies for creating culinary artwork

Keep kitchen clean and orderly to remove potential obstacles of creative culinary artwork

Communicate and cooperate with co-workers to effectively create and display culinary artwork

Role: Express creativity by preparing and displaying quality culinary artwork in the appropriate amount of time while complying with health standards

Utilization of Resources:
- Food as an artistic medium
- Equipment for creating culinary artwork
- Co-workers as collaborators in creating culinary art
- Customers as appreciators of the artwork

8.1.2. The job demand-resource perspective of job crafting

The alternative definition for "job crafting" comes from Tims, Bakker, and Demerouti, based on the Job Demand-Resource Theory proposed by Bakker and Demerouti (2007, 2017, 2023). According to the job demand-resource theory, as previously explained, employees' well-being or burnout might be due to two specific types of work categories (Tims and Bakker, 2010). In fact, according to the authors, job characteristics can be grouped and classified into two sets of working conditions, namely job demands and job resources, constituting therefore a model with wide applicability. Job demands are "those physical, psychological, social, or organisational aspects of the job that require sustained physical and/or and/or psychological (cognitive and emotional) effort or skills and are therefore associated with certain physiological

and/or psychological costs" (Bakker and Demerouti, 2007, p. 312). Job demands are not inherently negative, but they might be stressful if the degree of necessary effort is high, and employees do not have adequate time to recover. For instance, excessive work pressure and challenging client interactions are examples of job demands (Tims and Bakker, 2010). Job Resources, on the other hand, are "physical, psychological, social, or organisational aspects of the job that are either/or functional in achieving work goals, reduce job demands and the associated physiological and psychological costs, and can "stimulate personal growth, learning, and development" (Tims et al., 2012, p. 174). Therefore, job resources "are the main initiators of employees' work engagement and consequently of enhanced performance" (Tims and Bakker, 2010, p. 3), acting as both intrinsic and extrinsic motivators, as they foster the personal and professional development of individuals and allow them to achieve work-related objectives. Hence, Bakker and Demerouti (2007) concur with Hackman and Oldham's Work Characteristic Theory (1980) about the idea that job resources, such as autonomy, feedback, and task relevance, have a high motivational potential at the task level.

According to the Job Demand-Resource Theory, two processes can contribute to work strain and work motivation: first, they discuss the health impairment process, which leads to employee fatigue, health problems, and a decrease in energy due to poorly planned or chronic employment (Tims and Bakker, 2010). This argument is supported by research demonstrating that occupational stress caused by high job demands is associated with poor physical and mental health, repetitive strain injury, and sickness absence. According to Bakker and Tims (2010), the second phase is a motivational one in which job resources can motivate and lead to a higher degree of work engagement and improved performance (Demerouti, 2014). Hence, work engagement mediates the relationship between job resources and productive outcomes. In addition, the job demand-resource model posits that the relationship between job demands and job resources is crucial to the development of job strain and job motivation. Specifically, job demands can increase engagement and, consequently, job resources, while job resources can act as a buffer against job strain (Tims and Bakker, 2010). According to Demerouti (2014), employee motivation and performance are enhanced when organisations provide ample resources and reasonable demands.

According with the job demand-resource framework, job crafting (Tims and Bakker, 2010) is defined as "the changes that employees may make to balance their job demands and job resources with their personal needs" (Tims et al., 2012, p. 174). In addition, job crafting is distinguished from related concepts such as role innovation, task revision, idiosyncratic deals, and personal initiative because it involves "proactive changes in the job design that are not

specific arrangements that are negotiated by the organisation (supervisor) [...]; these changes are probably not even noticed by the manager. […] "Job crafting may also occur as a solution of short duration in a demanding period, [...] not necessarily in line with the goal of the organization" (Tims and Bakker, 2010, p. 3).

In this viewpoint, the process of job crafting can occur in a variety of ways, shifting the job demands and resources in the directions they prefer (Slemp et al., 2016; Tims et al., 2012). As Tims and Bakker (2010) note, employees can adjust the level of job demand and job resources to align them with their skills and preferences. So, employees can design their jobs in a variety of ways: by boosting job resources, raising job demands, or decreasing job expectations (Demerouti, 2014). Specifically, Petrou and colleagues (2012) defined job crafting as resource seeking, challenges seeking, and demand reduction.

First, they can increase job resources (or seek job resources, Petrou et al., 2012): according to Tims and Bakker (2010), having a high level of job resources at work would be advantageous because they allow for greater work engagement, commitment, and customer satisfaction and are conducive to other positive organisational outcomes, while reducing the negative effects of work demands (Tims et al., 2012). Workers may, for instance, take advantage of opportunities to learn and train by partaking in activities geared towards their development. Moreover, social job resources, in addition to structural ones, can be expanded, as noted by Slemp (2016): employees can request feedback and advise or seek a mentor. Tims and Bakker (2010) assert that when these job resources are few, it may be crucial for employees to be able to mobilise them in order to meet job demands with more ease. In fact, according to the authors, people with greater job resources are more willing to invest in development and acquire additional resources. Also, they perceive less stress and greater work involvement (Tims and Bakker, 2010). As Demerouti (2014) notes, resource-seeking behaviours "foster goal attainment, enhance performance, and an accurate self-image" (Demerouti, 2014, p. 239).

Second, employees can increase the "level of challenging job demands" (Tims et al., 2012, p. 175) to make their jobs more interesting and stimulating, leading to a higher level of engagement, satisfaction, and growth (Demerouti, 2014), despite the fact that they may also be perceived as more stressful (Tims et al., 2012). According to Tims and Bakker (2010, p. 4), "challenge demands are not depleting one's energy and are not related to negative work outcomes such as job dissatisfaction and ill health. Instead, they are related to work attainment and motivation", preventing boredom and fostering a sense of flow (Demerouti, 2014, p. 239). For example, staff could begin new projects when they have the time to do so, hence raising their level of difficulty (Tims and Bakker, 2010; Tims et al., 2012).

Third, Tims and her colleagues emphasise (2012, p. 175) that employees may reduce the level of hindering job demands "when they perceive that their demands have become overwhelming" (Tims et al., 2012, p. 175) or when they exceed their abilities (Tims and Bakker, 2010); in fact, long periods of high job demands in combination with low job resources can be dangerous and lead to negative outcomes, such as burnout (Tims et al., 2012; Demerouti, 2014).

For instance, employees should limit their interactions with people who have inflated expectations or avoid making difficult decisions (Slemp, 2016), or they can seek coworkers for assistance with their jobs (Tims and Bakker, 2010). This is viewed as a means for employees to achieve their goals without jeopardising their health; hence, they are referred to be "hindrance demands" (Tims and Bakker, 2010). To remain healthy and satisfied with their work, employees must lower the level of such demands in order to pursue better performance and be more satisfied with their jobs.

Tims and Bakker (2010), in their perspective, do not include the cognitive form of job crafting, as Wrzesniewski and Dutton (2001), did: they argue that cognitive crafting looks more like "coping with the circumstances" (Tims and Bakker, 2010, p. 5) than "actively shaping the boundaries of one's work" according to the definition proposed by Wrzesniewski and Dutton (2001).

8.2. Debates on the two perspectives: discussions around job crafting and unification proposals

8.2.1 Some debates around the two perspectives

The two perspectives on job crafting turn out to be quite different in defining the content of job crafting: according to Wrzesniewski and Dutton (2001; 2013), the most important aspects are related to the transformation from the physical, relational, and cognitive points of view. Instead, Tims and colleagues (2012) emphasise the changes in job characteristics. Zhang and Parker (2019) and Demerouti (2014) note that the two perspectives disagree on the reasons why individuals initiate job crafting. Wrzesniewski and Dutton focus on the role perspective. According to them (Wrzesniewski et al., 2013; Berg et al., 2010), job crafting helps enhance work meaning and work identity. Conversely, Tims and colleagues (2012) underline that job crafting is helpful to improve the balance between job demands and job resources; the goal is to improve the person-job fit and employees' health and motivation (Demerouti, 2014).

Zhang and Parker (2019) notice a lack of clarity in the literature due to the contrast between the two perspectives. They focus on four main points: first, it is difficult to understand which

behaviours can be classified as job crafting and which cannot. In fact, according to Tims and colleagues (2012), the proactive development of new skills can be considered a form of job crafting, even if this doesn't fit any of the task, relational, or cognitive crafting forms. Demerouti (2014) draws a parallel between the two perspectives, claiming that altering job demands and task crafting can be seen as the same, while relational crafting can be compared to changing the job resources. Zhang and Parker (2019) don't agree on this point, claiming the need for more precision in the definition of job crafting.

Second, Zhang and Parker (2019) talk about the ongoing debate about whether cognitive crafting is a form of job crafting or not. Such ambiguity comes from the fact that, according to Wrzesniewski and Dutton (2001; 2013), cognitive crafting is a key component of job crafting activities, as it allows the worker to reframe his or her role and redefine the work identity and meaning. In this way, people can improve their person-job fit even without varying their behaviour. Conversely, the job demand-resource perspective considers as job crafting just the active modifications to the job, leading to changes in the job contents (Bakker, Tims and Derks, 2012; Tims and Bakker, 2010). Therefore, from this point of view, cognitive crafting is not considered an activity that can be carried out on a daily basis, and it does not necessarily involve a process of task redefinition (Demerouti, 2014). Hence, the cognitive crafting raises some ambiguities in the scholarly debate.

Wang and colleagues (2020) also point out that the definition of cognitive crafting is not clear. The authors argue that the job demand-resource model is basically taking away the element of cognitive crafting, even though it has been shown to be important in previous studies. According to Wang and colleagues (2020), another weakness of the job demand-resource approach to job crafting comes from the fact that it ignores the motivations workers have to craft their job.

According to Zhang and Parker (2019), a third critical point in the debate about job crafting is the difficulty in differentiating it from other constructs. More specifically, they claim that "the fit of job crafting into a broad proactive scheme has rarely been discussed" (Zhang and Parker, 2019, p. 128).

The fourth point Zhang and Parker underline regarding the ambiguity in job crafting research regards the ambiguity in scales and measurements: in fact, different, types of measurements are used, even in the same perspective, making it difficult to "clearly identify the antecedents, outcomes, and mechanisms of job crafting" (Zhang and Parker, 2019, p. 128).

With the purpose of providing an integrative definition and to overcome the debates and difficulties in the conceptualization, Bruning and Campion (2018), define job crafting as "the

changes to a job that workers make with the intention of improving the job for themselves" (Bruning and Campion, 2018, p. 500). The scholars then identify the defining features of job crafting that differentiate it from other constructs: in particular, it is considered a set of changes that are "self-targeted and intended to the benefit of the individual crafter" (Bruning and Campion, 2018, p. 500). Second, they are "volitional", intentional transformations: as a result, the job that is modified presents significant variations from the initial job, thus implying transformations that are noticeable and that lead to variations in tasks, relations, or cognitive perceptions of the job. Moreover, they underline that the variations to the job are meant to be permanent changes rather than temporary ones. The authors also underline that job crafting activity is related only to the work role and not in leisure time (Bruning and Campion, 2018, p. 500). A further trait of job crafting is that it happens within the framework of a clear and precise job description, substantially differentiating it from jobs that have more autonomy and freedom in their very nature (e.g., self-employed, entrepreneurs, consultants, etc.) (Bruning and Campion, 2018, p. 500).

Hence, Bruning and Campion (2018) argue that job crafting can be present in the forms of approach and avoidance, stating that approach crafting activities consist of "active, effortful, motivated, and directed towards problem-focused and improvement-based goals" (p. 501), while avoidance crafting activities have the aim of "evading, reducing, or eliminating part of one's work", trying to reduce "hindering and social demands", in "one's tasks and social boundaries at work", and systematic forms of withdrawal" (p. 502).

In their role-resource-approach-avoidance job crafting, Bruning and Campion (2018) propose a distinction between role- and resource-crafting, as well as approach- and avoidance-crafting. A first distinction to be made is between role- and resource-crafting. The first involves the "tasks and social boundaries of the work" and is related to the personal needs of the employee. On the other hand, resource crafting is directed at modifying work by reducing the demands and increasing the resources and is linked to the modifications related both to personal goals and to demands coming from the external (Bruning and Campion, 2018, p. 502).

The authors suggest classifying job crafting into a 2x2 matrix. This matrix would include variable approach and avoidance crafting, as well as role and resource crafting. The four categories are therefore: approach-role crafting, approach resource-crafting, avoidance role-crafting, and avoidance resource-crafting. In each category, job crafting can take different forms—for example, role crafting can take the form of role expansion and social expansion in the case of an approach attitude or work-role reduction in the case of an avoidance attitude.

Instead, when crafting involves work resources, it can take the form of work organization, adoption, and metacognition for resource-approach crafting and withdrawal crafting for resource-avoidance crafting (Bruning and Campion, 2018).

8.2.2 Promotion and prevention crafting: the proposition of an overarching job crafting form

An important perspective is the one proposed by Bindl and colleagues (2019). The authors draw on theories of regulatory focus and claim that individuals can engage in job crafting in an overarching form: promotion or prevention. Both "represent deliberate strategies towards initiating changes on one's own job" (p. 606). On the one hand, according to Bindl et al. (2019), promotion-oriented job crafting "represents a 'gains' approach whereby the employee adds to and extends existing job aspects" (p. 607). With an approach-orientation, one can thus engage in task, relational, and cognitive crafting. First, approach-oriented task crafting indicates that the person will seek out new projects, higher levels of complexity, and new difficulties, whereas approach-oriented skill crafting implies that the individual will attempt to develop their skills. Instead of increasing the frequency of interaction with coworkers, approach-oriented relational crafting entails fostering more meaningful relationships. Approach-oriented cognitive crafting entails gaining new perspectives of the job's significance and contribution to the company as a whole (Bindl et al., 2019).

On the other hand, prevention-focused job crafting "represents active changes to one's job that will prevent negative outcomes from occurring", but it's not "a withdrawal from work and still constitutes a form of proactive behaviour" (Bindl et al., 2019, p. 607). In order to maintain the same level of productivity, a prevention-oriented task-creation form could simply entail reducing the work expended on the job's least vital components. Alternatively, prevention-focused relational construction may involve cultivating relationships with only a few trustworthy coworkers. Lastly, a prevention-oriented cognitive crafting could entail focusing on the aspects of the job in which one feels most at ease and safest, i.e., the most advantageous aspects of the employment.

A similar approach was proposed by Lichtenthaler and Fischbach (2019), whose goal is to integrate the various conceptualizations of job crafting into one single model that would take into consideration both the positive and negative effects of job crafting. Thus, Lichtenthaler and Fischbach (2019) distinguish prevention-focused job crafting from promotion-focused job crafting. They argue that "promotion-focused job crafting is positively related to motivation, health, and performance because it produces favourable changes in tangible work role

boundaries" (p. 1). Conversely, prevention-focused job crafting "is negatively related to health, motivation, and performance because prevention-focused job crafting does not produce favourable changes in tangible work role boundaries while producing produces unfavourable changes in work role perception" (p. 1).

Hence, promotion-focused self-regulation stems from an individual's desire for growth and development, and their motivation is derived from the possibility of achieving favourable end-states. It consists of actions that tend to enhance job resources and demanding job requirements, so increasing the scope of their tasks whenever possible. In conclusion, promotion-focused job making is a series of expansion-oriented actions aimed at crafting tasks, relationships, and cognitive perception.

On the other hand, prevention-focused self-regulation comes from employees' needs for security and safety and their willingness to avoid negative states. They focus mostly on the prevention of losses: it is a set of contraction-oriented behaviours, crafting tasks and relations with the goal of "keeping things from happening" (Lichtenthaler and Fischbach, 2019, p. 13). The authors explored the consequences of promotion- and prevention-focused job crafting and found out that promotion-focused job crafting is associated with work engagement and negatively related to burnout, while the opposite is true for prevention-focused job crafting.

A gain spiral shows that the positive relationship between promotion-focused job crafting and work engagement does stay the same over time. In fact, thanks to promotion-focused job crafting, employees can boost their motivation by enhancing the job characteristics that motivate them. Thus, they deem their work more meaningful, which increases work engagement. This leads employees to further engage in promotion-focused job crafting as they are energized and in a positive state (Lichtenthaler and Fischbach, 2019). On the other hand, the positive relationship between prevention-focused job crafting and burnout is fostered over time, in a loss cycle. Indeed, the prevention-focused behaviours lead people to perceive their job as less meaningful, which makes it more likely that they will experience burnout. In turn, burnout, which is a negative state, drains motivation and energy from people; at this point, employees will engage even more in prevention-focused job crafting, further withdrawing from work (Lichtenthaler and Fischbach, 2019). Thus, the authors underline the importance of collecting the potentially dangerous signals coming from employees' engagement in prevention-focused job crafting.

8.2.3 A hierarchical, comprehensive model of job crafting

A comprehensive model was instead proposed by Zhang and Parker (2019), who elaborate a hierarchical structure for job crafting, composed of three related levels, starting from the role- and resource-crafting and their motivational components.

First, job crafting orientation, which can be distinguished between approach- and avoidance-crafting; second, job crafting form (cognitive or behavioural); third, job crafting content, directed to job demands or job resources.

More specifically, job crafting orientation comes from the approach-avoidance motivation theory (Elliot and Thrash, 2002): at the highest level, this is the system that contributes to determining people's aims when they are crafting their job. At the second level, the job crafting form is distinguished into cognitive and behavioural crafting. According to Zhang and Parker (2019, p. 130), cognitive crafting consists of "the active and intentional changes that individuals make in how they see their tasks and work roles"; employees "influence their work meaning, work identity, and emotions" in an intangible way. Behavioural crafting is instead related to the actual behavioural changes that have an impact on the job. Cognitive and behavioural crafting are related to each other, although they aren't interchangeable, and their antecedents and outcomes differ (Zhang and Parker, 2019). The third level involves the target of job crafting, which can be job demands or job resources; in this case, the job crafting process takes on different forms and outcomes (Zhang and Parker, 2019).

Hu and colleagues (2020) tested the hierarchical structure proposed by the authors (Zhang and Parker, 2019), providing empirical confirmation of the validity of the synthesised approach proposed.

Zhang and Parker (2019) suggest an eight-type classification of work crafting based on three levels and distinctions. The authors describe a two-by-two-by-two combination of the three hierarchical levels (the job crafting orientation, form, and content) (Zhang and Parker, 2019; Hu et al., 2020).

In fact, job crafting can be conducted with an approach orientation, highlighting the positive features and putting it into practise in a cognitive or behavioural manner. The action may be aimed towards either job demands or job resources. On the other hand, one can have an avoidance orientation towards job crafting, acting on a behavioural or cognitive level, as well as towards job demands or job resources. In light of the available combinations, the eight categories of job crafting are as follows:

1. Approach resource crafting (behavioural): the individual takes action to increase the positive job resources.
2. Approach demand crafting (behavioural): the individual takes steps to increase the challenging demands and face the straining demands.
3. Approach resource crafting (cognitive): changing the individual's attitude in the job to increase the positive job resources.
4. Approach demands crafting (cognitive): altering the individual's perception on the job demands as less straining or more challenging.
5. Avoidance resource crafting (behavioural): acting to escape the parts of the job that don't present positive resources.
6. Avoidance demands crafting (behavioural): acting to prevent the straining demands.
7. Avoidance resource crafting (cognitive): changing perspective on the job to lower the importance of the parts without resources.
8. Avoidance demand crafting (cognitive): changing the outlook on one's job to avoid the job demands.

Figure 4, from Zhang and Parker's (2019, p. 129) perspective, illustrates the difference between the comprehensive perspective proposed by the authors with respect to the existing ones. Indeed, in Zhang and Parker's view, the hierarchical organization of job crafting (Figure 4a) encompasses all the perspectives proposed and integrates the both the role-based perspective and the job-demand resource one in a coherent framework.

Figure 4. Illustration of the hierarchical perspective of job crafting proposed by Zhang and Parker (a) and the existing perspectives (b) (Zhang and Parker, 2019, p. 129)

(b)

Job demands-resources perspective   Wrzesniewski & Dutton perspective
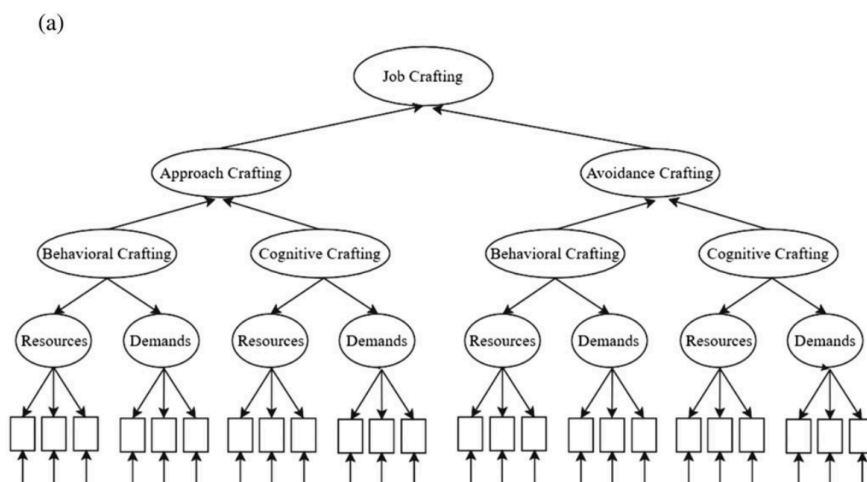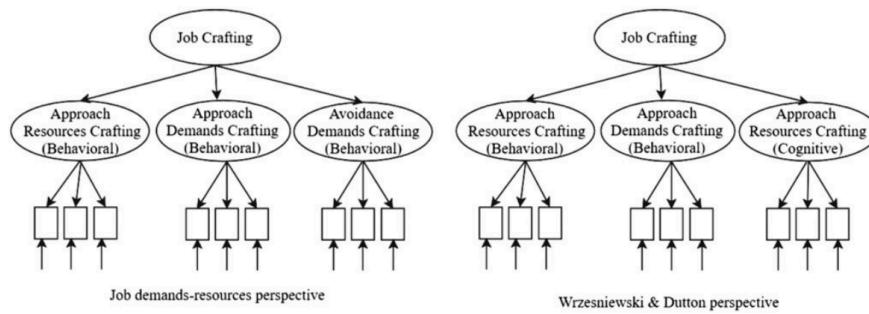
As research on job crafting keeps growing, new kinds of job crafting are coming to light because of the research. Indeed, Demerouti and Peeters (2018) introduced the concept of demand optimization. First, the authors remind that, according to the job demand-resource perspective on job crafting (Tims et al., 2012; Tims and Bakker, 2010), two attitudes are present: an expansion orientation - consisting of seeking challenges and increasing resources, and a reduction orientation – consisting of demand minimization (Petrou et al., 2012). The first attitude increases the complexity or the number of tasks and relationships at work, whereas the second aims at decreasing such complication.

Demerouti and Peeters (2018) focus on the aspect of reduction of demands and remind that it serves as a mechanism to face high demands and preserve one's health (Demerouti, 2014). Demerouti and Peeters (2018) deepen the study on the minimization of demands, introducing the concept of optimization of demands. According to the authors, "the underlying intention of optimizing demands is the simplification or optimization of work processes to make them more efficient" (Demerouti and Peeters, 2018, p. 211). Employees can exploit their capabilities to improve the process and achieve their work objectives, saving time, for instance. Optimization of demands and reduction of demands are different from each other, despite being both directed at diminishing demands. In fact, while demand reduction aims at avoiding the most stressful job demands, demand optimization has the goal of improving the efficiency of the work processes and avoiding unnecessary bottlenecks and obstacles (Demerouti and Peeters, 2018). Both optimization and minimization of demands can be present at once in an individual, but they are distinct in attitude and results. While efforts aimed at minimizing one's demands are linked to negative effects, demand optimization is related to a higher level of work engagement (Demerouti and Peeters, 2018; Zhang and Parker, 2022). In fact, optimization of demands is "regarded as an approach-oriented proactive behaviour,", whereas minimization of demands "is similar to avoidance-oriented withdrawal behaviour" (Zhang and Parker, 2022, p. 1).

Zhang and Parker (2022) investigate the process through which individuals assess demands and associate them with demand-crafting strategies. Zhang and Parker (2022) follow the transactional theory of stress (Lazarus and Folkman, 1984), which claims that job demands can be evaluated as hindering or challenging by different individuals, determining therefore the behaviours one will adopt to face them. Therefore, the authors assess the role of hindering or challenging demands in influencing the demand-crafting strategy adopted. Thanks to their study, Zhang and Parker (2022) could demonstrate that "individuals' choice of job demands crafting is shaped not by the demands themselves but by their cognitive appraisals of those demands" (p. 9). Moreover, Zhang and Parker (2022) show that the fact that individuals reduce job demands is not due to the perception of not having control but rather to the "hindrance perception of the situation" (p. 10). Therefore, how individuals decide to act towards their job demands is strongly determined by their perception of the situation.

Costantini and his colleagues emphasized in 2021 that behaviours that reduce hindering demands try to get rid of or avoid some parts of a job, while behaviours that optimize demands try to meet job demands and make the work processes better. More specifically, Costantini and her colleagues add to the hierarchical model of job crafting by Zhang and Parker (2019). They propose that each job crafting behaviour constitutes a "reflective construct", and that those form various higher-order forms (p. 324). At the lower end, Costantini and colleagues individuate four constructs: "seeking resources, seeking challenges, decreasing demands, optimising demands" (p. 324). While the first two constructs are expansive strategies, the other two constitute contraction strategies. Finally, expansion and contraction strategies determine a superordinate construct: "behavioural job crafting" (p. 324–325). Their studies confirm such categorization and confirm the stability over time of such behaviours (Costantini et al., 2021). Moreover, Costantini and colleagues remarked that reducing demands is negatively linked to job crafting; this made them add to the ambiguity regarding avoidance crafting as part of proactive behaviours. Thus, argue Costantini and colleagues (2021, p. 336), "job crafting is characterized more by effortful and directed actions to seek positive aspects of work, rather than by withdraw-oriented behaviours concerning negative ones."

Following the hierarchical level proposed by Zhang and Parker (2019), Lopper and colleagues propose a scale to measure this conceptualization framework, the Approach-Avoidance Job Crafting scale (AAJC) (Lopper et al., 2023). Lopper and colleagues highlight the fact that approach and avoidance crafting should be considered independent: the fact that an employee engages in approach crafting by increasing the amount of time dedicated to the development of personal resources while at the same time avoiding talking to some colleagues, therefore

engaging in avoidance crafting as well (Lopper et al., 2023). Hence, the authors propose that two independent job crafting factors are present that do not constitute a whole job crafting factor but maintain their separation. Lopper and colleagues thus refine the hierarchical model presented by Zhang and Parker (2019), reminding that these authors' conceptualization considers approach and avoidance crafting as two independent components, combined into a single "job crafting factor" (Lopper et al., 2023, p. 8). In particular, as reminded by Hu and colleagues (2020), there seems to be an overlap between role-based and resource-based job crafting. Although they keep being considered separately, they have been proposed as an integrated perspective (Bruning and Campion, 2018; Zhang and Parker, 2019). Lopper and colleagues claim for a clarification of the conceptualization of job crafting from a theoretical and empirical standpoint. Building on the previous literature on this point (Costantini et al., 2021), Lopper and colleagues (2023) claim that approach and avoidance in job crafting should be considered as two separate factors, not associated with each other. In fact, one can engage in both approach and avoidance crafting at the same time in different areas of work. Thus, including job crafting in one single item would be reductive.

Also, Lopper and colleagues (2023) claim that it is not clear if avoidance crafting can be considered a proactive behaviour. In fact, Zhang and colleagues (2019) say that most of the existing job crafting scales mostly look at passive activities when judging avoidance crafting. Moreover, Hu and colleagues (2020) found that avoidance crafting is more about withdrawing from the negative aspects of the job than actively trying to diminish these features. On the other hand, Demerouti and Peeters (2018) introduce the concept of "optimizing demands", consisting of behaviours to avoid job obstacles and make the job easier. The optimization of demands, however, is considered by Zhang and Parker (2022) as a way to face hindering demands. According to Lopper and colleagues (2023), therefore, avoidance crafting is not just about passively avoiding some job characteristics but "also active changes in job aspects in the form of setting priorities or reducing or rearranging tasks". Indeed, employees can "reduce or avoid negative or overtaxing aspects of work to protect themselves from feeling overwhelmed, maintain their working level, or invest energy into other areas at work and focus on relevant tasks" (Lopper et al., 2023, p. 12).

Lopper and colleagues (2023) thus propose a refinement of the hierarchical model by Zhang and Parker (2019): they claim that, at the first level, approach- and avoidance-crafting should be considered separately. Instead, at the second level, cognitive and behavioral crafting show correlation and can determine the content of job crafting (the third level), which is coherent with what Zhang and Parker (2019) claimed. After having posited the refinement for the

hierarchical model of job crafting, Lopper and colleagues (2023) aim at testing the model through the AAJC scale (Approach Avoidance Job Crafting Scale, Lopper et al., 2023). Lopper and colleagues (2023) still propose eight different job crafting dimensions: first, as mentioned, they separate approach crafting and avoidance crafting. Second, at the subsequent level, they distinguish cognitive and behavioral crafting (divided into: approach behavioral crafting, approach cognitive crafting, avoidance behavioral crafting, and avoidance cognitive crafting). Third, they identified the content of job crafting, which could be job resources or job demands, for each of the four second-level categories.

They were able to assess the validity of the conceptualization of job crafting put forth by Zhang and Parker (2019) (Lopper et al., 2023) thanks to three different studies. Furthermore, the authors could confirm the hierarchical levels and validate the eight dimensions of job crafting after testing the validity of the AAJC scale. This scale has the value of being "an assessment tool that measures aspects of both role- and resource-based job crafting simultaneously". Integrating the two of them "eliminates the problem of combining and accumulating different results regarding job crafting" (Lopper et al., 2023, pp. 32–33). The solid theoretical conceptualization at the basis of the scale—the hierarchical structure proposed by Zhang and Parker (2019)—constitutes a good foundation for the scale. Nevertheless, the empirical validation is equally important: the authors "provide the first empirical evidence showing that job crafting can be described most effectively in terms of a three-level hierarchical structure" (Lopper et al., 2023, p. 33).

8.3.   Why crafting one's job? Several motivations for job crafting

Job crafting is a spontaneous activity that can be started by people for a variety of reasons, as Berg and colleagues (2010) highlighted. Wrzesniewski and Dutton (2001) assert that there are three primary reasons why people may engage in job crafting: first, employees need to control some aspects of their occupations in order to enhance their meaning and avoid undesirable consequences in the workplace, such as alienation (Demerouti, 2014). Second, they need to construct and enhance a positive self-image; third, they want to strengthen their interpersonal relationships (Wrzesniewski and Dutton, 2001, p. 182). Hence, the three motivations are tied to the need for a deeper meaning, for connection with others, and to improve the self-image (Hu et al., 2020).

More specifically, Wrzesniewski and Dutton (2001, p. 181) say that the need for personal control is a "basic human drive." In fact, it is a deep need of people to have control over some

parts of their lives, even small ones. Therefore, by increasing their control over some aspects of their work, job crafters can "make their job their own" (ibidem).

Second, people want to improve their positive self-image, both in their own eyes and in the eyes of others. This desire shows up at work, too. Dutton and Wrzesniewski (2001) point out that people have a strong need to present a positive image of themselves to others. Because of this, people are motivated to change their tasks and relationships in order to express themselves in a more positive way and have others agree with them (Wrzesniewski and Dutton, 2001).

A third reason why employees are motivated to craft their jobs is linked to "the need for human connection" (Wrzesniewski and Dutton, 2001, p. 183). In fact, human beings desire a strong connection with others in order to foster a sense of meaning in their lives. In addition, Dutton and Wrzesniewski (2001) claim that workers form relationships at work so that their sense of meaning at work is enhanced and they can develop more positive work identities and narratives of themselves.

Substantially, Wrzesniewki and Dutton (2001) say the main reasons why people craft their jobs are to find a deeper meaning in work, improve their work identity, increase the purpose, and change their perception of their job in a more positive way. Demerouti (2014) underlines that employees craft their jobs in order to create the conditions that allow them to work in a healthy and motivating environment.

Therefore, as Hu and colleagues (2020) noted, these motivations draw on the self-determination theory (Ryan and Deci, 2001), in which job crafting and the need for fulfillment were linked by autonomous self-regulation (Hu et al., 2020). As Hu and colleagues (2019) claim, while crafting their jobs, individuals change their work environments in an active way with the aim of pursuing positive psychological conditions for themselves.

A further motivation for job crafting, as highlighted by Tims, Bakker, and Derks (2012), is the desire to increase the person-job fit, and it is not necessarily aimed at bringing benefits to the company. According to the authors, in fact, the motivation to craft their own job for workers may come from a misfit between the requirements of the job and the skills and/or needs of the employee. In such a situation, people would increase their amount of challenges, their possibility for development, and they might decrease the number of situations that are causing stress or strain (Tims et al., 2012). Moreover, Wang, Chen, and Lu (2020) remind that when negative states are perceived at work, the intention to craft the job is manifested. Such experiences can involve, for instance, uncertainty about organizational changes, boredom, low levels of job control (Wang et al., 2020). According to Wang and colleagues (2020), when workers experience dissatisfaction in their careers, they may experience the need for control

and for a positive self-image, and such dissatisfaction can contribute to encouraging job crafting activities.

In their meta-analysis of qualitative studies, Lazazzara and her colleagues (2020) outline the process of how job crafting is carried out: the motivations to craft are the initiators of the changes. According to the authors, there are two main kinds of motivation: proactive and reactive. The first ones refer to the motivation for employees to initiate job crafting activities in order to achieve their "desirable goals" (Lazazzara et al., 2020, p. 10), which are related to both the individual and the job, such as the desire to reduce workload and time devoted to work (Lazazzara et al., 2020), to increase the person-job fit, the self-image, and the meaningfulness, their positive personal identity, and rethinking about their professional role. Also, the literature demonstrates, as Lazazzara and colleagues (2020) note, the need to achieve a better work-life balance, to connect with customers more effectively, to increase their expertise, and to boost their career goals (Lazazzara et al., 2020).

Lazazzara and other researchers (2020) note that reactive motives are those that lead people to design their employment to "cope with structural adversity" (p. 10), which is experienced when the environment is extremely competitive or when organisational changes may pose a threat. In fact, employees may feel the need for protection if they have a low-status job or if they lack social affirmation for their work. As indicated by Lazazzara and colleagues (2020), who cite the literature, certain reactive motivations for work crafting are related to the need to compensate for missed calls and obstacles, thereby attempting to raise the level of authenticity. Reactive motivations for work crafting may also be a response to bad employment qualities, such as a lack of autonomy and resources or having to deal with too many demands (Lazazzara et al., 2020).

Zhang and Parker (2019) raise an insightful point by highlighting the fact that employees' motivation to change their jobs affects the impact job crafting has as well (Zhang and Parker, 2019, p. 138). Rofcanin and colleagues found that a lesser urge to impress management was associated with more work engagement and a positive association with approach resource crafting (Rofcanin et al., 2018). In contrast, Wang and colleagues (2018) assert that tough times can be linked to approach crafting and the attachment to work; in fact, those who are poor performers or who suffer a higher level of job insecurity are more likely to engage in approach constructing.

8.4. Outcomes of job crafting

Job crafting changes the way in which people conduct their job, therefore the impact it has on the single individual and at the organizational level is relevant.

Numerous studies have assessed the impact of job crafting both at the individual and the organizational level: the consequences of job crafting can be mostly positive, but some unintended consequences can happen too. For instance, Tims and Parker (2020) point out that the literature reviews and meta analyses carried out indicate that approach crafting is generally associated with positive experiences for the crafter – such as a deeper meaningfulness, work engagement, better occupational identity. On the other hand, instead, avoidance crafting behaviours are often related to burnout, job strain and fatigue, and worse performances (Lazazzara et al., 2020; Zhang and Parker, 2019; Lichtenthaler and Fischbach, 2019).

As underlined by Zhang and Parker (2019, p. 138), "good work design predicts an array of positive individual and organizational outcomes, including satisfaction, internal work motivation, employee well-being, and performance". In fact, research shows that giving people the possibility and autonomy to craft their own jobs has positive effects on their well-being, their satisfaction, and their engagement at work, as well as on the job-person fit (Tims et al., 2016; Tims and Bakker, 2010; Zhang and Parker, 2019), and can lead to thriving and resilience (Berg et al., 2013).

In particular, Wrzesniewski and colleagues (2013) underline the importance of job crafting's role in fostering a sense of meaningfulness at work (Wrzesniewski, Berg, & Dutton, 2010). Berg and colleagues (2013) argue that job crafting is key to nurturing feelings of satisfaction and engagement at work. The scholars point out that a problem for both organizations and workers is related to the high turnover due to the lack of satisfaction and engagement for employees; therefore, job crafting can foster a new feeling of meaningfulness in jobs held for a longer period.

Slemp and Vella Brodrick (2014) underline the importance of job crafting in promoting psychological and subjective well-being, while other benefits can be found in career success, career satisfaction, and commitment (Akkermans and Tims, 2017; Kim and Beehr, 2019).

Research has evidenced other positive effects of job crafting: Dubbelt and colleagues (2019), in particular, remind how changes in job design can increase person-job fit, motivation, satisfaction, and a better perception of their career—all of which can come from increasing the number of resources in one's job. The need to increase the meaningfulness and salience of the

job is a motivation that leads employees to craft and obtain the expected results, as underlined by Petrou, Bakker, and Van Der Heuvel (2017).

Some possible unintended consequences can be observed as an outcome at the individual level. For instance, Zhang and Parker (2019) argue that when the demands in a job are too high, it can be difficult for the individuals to deal with them, leading to detrimental effects such as lower work-engagement and job satisfaction (Lichtentaler and Fishbach, 2016; Rudolph, 2017), and exhaustion over time (Dubbelt, 2019).

At the organizational level, positive outcomes are also present, such as organizational commitment (Ghitulescu, 2007), better performances, and higher employee retention (Tims and Bakker, 2010). In fact, as Berg and colleagues claim, "freedom to take initiative opens up opportunities for employees to create meaningful experiences for themselves through job crafting" (Berg et al., 2013; p. 4). This increased meaningfulness entails positive effects for the organization as well, argue Berg and colleagues: in fact, organizations require employees to be more and more proactive (Grant and Ashford, 2008); by adapting their jobs, workers can foster innovativeness and adaptability, thus benefiting the organization as well.

Additionally, Tims and Bakker (2010) found that there is a positive feedback loop between job demand and resources, meaning that as the level of positive outcomes rises, so do the level of job resources. In fact, as Demerouti (2014, p. 241) points out, "to the extent that employees proactively adjust their work environment, they manage to stay engaged". A further positive outcome Tims and colleagues highlight is employability (Tims et al., 2012): in fact, the authors draw on the definition of employability as the continuous fulfilling, acquiring, or creating of work thanks to the optimal usage of his or her competencies (Van Der Hejide and Van Der Hejiden, 2006, p. 453), which is linked to a high level of proactivity and effort to be willing to shape their jobs in order to attain professional development. Consequently, "employees may become more employable" (Tims et al., 2012, p. 180), thanks to job crafting. As reported by Lazazzara and her colleagues (2020), the positive experiences coming from job crafting are related to esteem-enhanced occupational identity, meaningfulness, and job satisfaction. (Lazazzara et al., 2020). However, the scholars underline how negative effects may be present as well, as the literature reports: in fact, overload, regrets, strain, stress, conflicts at home, health problems, and physical injuries can be related to job crafting activities. Lazazzara and her colleagues (2020) explain that when people perceive supportive personal factors, the job crafting process is associated with positive experiences. On the other hand, when people perceive a lack of personal resources or of self-confidence, the job crafting process may result in negative experiences (Lazazzara et al., 2020).

Following the approach- and avoidance-crafting conceptualization of job crafting, scholars have pointed out that the two orientations (Zhang and Parker, 2019) are not mutually exclusive and can actually be carried out at the same time by individuals.

More specifically, according to Makikangas (2018), individuals engage in the various forms of job crafting simultaneously and daily. Therefore, a form of compensation for the straining effects generated by decreasing the hindering demands takes place. In fact, according to Makikangas (2017), approach crafting buffers the negative consequences of avoidance crafting. Moreover, Petrou and colleagues (2018) claim that, when social and structural job resources are engaged, there is a positive relationship between decreasing hindering demands and performance. At the same time, when employees tend to increase challenging demands at a lower level than at a higher level, there is a negative relationship between decreasing hindering demands and employability orientation. Thus, different forms of approach crafting will mitigate the association between avoidance crafting and different outcomes.

9. Job Crafting in context: antecedents and impact on the environment

9.1. Antecedents of job crafting

Since the inception of this stream of writing, scholars have focused on the factors most likely to initiate the job-crafting process. Wrzesniewski and Dutton (2001), for instance, emphasise the significance of job misfit as a motivation for employees to begin adjusting their jobs. Tims and Bakker (2010) believe that when there is a mismatch between the individual and the job, the individual is driven to create their own job. Particularly, two components are present while evaluating the person-job fit: the "fit between an individual's knowledge, skills, and abilities […] and the job demands" and the "the fit between needs and desires of an individual and what is provided by the job" (Tims and Bakker, 2010, p. 5). Hence, the worker experiences the person-job fit when "what the worker can do and wishes for in the job and what the job demands from and offers the worker" are balanced; instead, a misfit exists when they are not balanced, resulting in job crafting behaviours, according to the authors (Tims and Bakker, 2010; Wrzesniewski and Dutton, 2001).

According to Tims and Bakker (2010), the reasons of job crafting can be found in the features of the job (particularly autonomy and task independence) or in the characteristics of the

individual performing the job, such as a proactive personality, self-efficacy, and self-regulation.

Concerning the job characteristics, autonomy consists in the possibility for the employees to alter the design of the job, or, in Oldham and Fried's words (2016, p. 21), in "the degree to which the job provides substantial freedom to the employee.". In fact, autonomy at work enables individuals to develop new skills and assume more responsibilities. Nonetheless, the lack of autonomy prevents people from altering certain aspects of their jobs.

As for task independence, it is important, according to Tims and Bakker (2010), to give employees the possibility to craft the jobs; in fact, if one's tasks and their colleagues' are very interdependent, the employees find it hard to modify them.

Regarding individual differences, Tims and Bakker (2010) emphasise the significance of a proactive personality, which entails taking the initiative and altering the surrounding environment to enhance the situation. In fact, proactive people are more likely to "change those aspects of their jobs that are not contributing to the attainment of certain work goals" (p. 6) in a way that allows them to enjoy a more favourable outcome. Tims, Bakker, and Derks (2012) discovered that employees with a more proactive personality were more likely to craft their job, increasing the structural and social resources of the job and the challenges associated with their work; therefore, according to Demerouti (2014), a proactive personality indicates a tendency to craft the job proactively, thereby transforming job demands and resources.

Parker and Collins (2010) also underline the importance of a proactive personality in motivating others to accomplish a good job. According to them, this type of motivation might serve as an antecedent. As for self-efficacy, Tims and Bakker (2010) contend that employees with a greater perception of self-efficacy are more likely to engage in job-crafting activities because this trait is associated with proactive behaviours and initiative taking. In addition, based on the regulatory focus theory, which posits that individuals might be focused on prevention or promotion, Tims and Bakker (2010) argue that individuals who are primarily focused on promotion are more likely to craft their work. Furthermore, the authors claim the significance of tailored feedback to nurture and encourage job-crafting processes, as this emphasis can be perceived as being more pertinent. Petrou and colleagues (2012) focus on the importance of the interaction between individual and contextual characteristics among the antecedents of job crafting related to job characteristics.

In their meta-analysis, Zhang and Parker (2019) present various examples and, in particular, highlight the similarity between the antecedents of behavioural approach crafting and those associated with the proactive behaviour literature. Moreover, prevention focus, neuroticism,

and burnout are associated with avoidance demand crafting (Zhang and Parker, 2019), whereas proactivity-related traits, such as openness, work engagement, conscientiousness, proactive personality, and job autonomy, are negatively associated with avoidance demand crafting.

De Longchamp (2020) argues that psychological flexibility – the capacity to be aware of the present moment and the ability to change or persevere in a behaviour that allows to achieve a purpose – should be included as an antecedent of job crafting, since it can be an indicator of how likely people are to craft their jobs to pursue some valuable results. Moreover, according to De Longchamp (2020), the antecedents of job crafting should include also the work characteristics that encourage flexibility for the individual – such as a flexible work environment, workplace policies encouraging individual flexibility, or the behaviour of a co-worker or a supervisor engaging in job crafting behaviours.

Demerouti (2014) recalls that Wrzesniewski and Dutton (2001) were the first to identify the primary characteristics that contribute to job crafting. They emphasised the relevance of decision latitude, job autonomy, and discretionary behaviour. Moreover, the presence of challenges and complex tasks in the job is associated with demanding aspects of the work that lead to proactive behaviour to achieve them (Berg et al., 2010; Ghitulescu, 2007). Indeed, Berg and colleagues found that the presence of job crafting endeavours was not associated with the rank of the employee in the organization but rather with his or her assessment of the challenges related to the job.

However, as Demerouti (2014) recalls, various organizational factors can foster job crafting "as a way to enhance an employee's sustainable ability to adapt to the demands of the dynamic post-industrial workplace" (Demerouti, 2014, p. 240).

In fact, job crafting is not just driven by individual or situational factors: rather, it is the interaction "person x situation" that can better explain the job crafting behaviour, as found by Petrou (2013). In fact, employees who have a promotion-focused behaviour are more likely to accept changes and behave in a proactive manner. On the other hand, employees who are more prone to prevention and security are more willing to craft their job when organizational changes are not properly communicated. In fact, those employees need to maintain a higher level of security to carry out their tasks (Demerouti, 2014).

In sum, Demerouti (2014, p. 241) states, "job crafting occurs in demanding, resourceful, and changing work environments by employees who are proactive, motivated by growth, or who experience misfit between their motivational style and the environmental cues.".

9.2.   Impact of social context in employee job crafting

The importance of the social context on employees' job crafting and vice-versa is largely acknowledged by the literature.

Wang and colleagues (2020) in their meta-analysis recommend a review of the correlations between "social factors and employee job crafting" (p. 8015) and how job crafting works as a mediator that can connect social factors with work outcomes in order to promote a better understanding of the phenomena (ibidem). The authors emphasise the significance of social elements in supporting the way people construct their professions and include them as antecedents for job crafting: in particular, the social factors emanating from organisational insiders, such as encouragement from colleagues and a favourable leadership style (employee-oriented, transformational, empowering). Moreover, the authors highlight the favourable impact of promotion-focused job crafting, characterising it as "an effective self-initiated strategy that can successfully transform favourable social factors into improved social performance and well-being" (Wang et al., 2020, p. 8015).   Furthermore, Wang and colleagues emphasise the significance of job crafting as a mediator between leadership and outcomes.

Following, we will examine not only how job crafting can be carried out in a collaborative way, but also which can be the consequences for colleagues and the organisation due to job crafting.

9.2.1. The collective forms of job crafting

The interest around of job crafting can be seen by colleagues and how they can perceive it spread after the first article on collective job crafting, by Leana and colleagues (2009).

Tims and Parker (2020) make a significant contribution to our understanding of the influence of job crafting on the social context and vice versa. They identify four primary areas of interest: the social context as a target for job crafting, the transformation of the social context as a result of individual job crafting, the social context as an influence on individual job crafting, and the social context as a moderator of job crafting activities.

First, Tims and Parker (2020) focus on the social context as a target for job crafting. The authors investigate the relevance of relational crafting in changing their interactions with coworkers and clients in an effort to improve their social relationships. Tims and colleagues (2012) highlight, from the perspective of the job demand-resource model, how employees might

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enhance social job resources or raise and decrease social resources (Nielsen and Abildgaard, 2012).

Second, the focus is on how the work environment changes and reacts if individuals craft their jobs (Tims and Parker, 2020). For instance, Bizzi (2017) refers to role theory to explain how other people in the workplace act as "role senders": they convey expectations to the individual about how he or she should enact his or her role. Bizzi (2017) uses social network analysis to conclude that job crafting is higher when the others' job characteristics include a higher level of autonomy and feedback.

In this context, it's also important to remind that it is important to consider the relationship between the leader and the employees: a positive, solid relationship with the leader can encourage the employees to engage in job crafting with more positive outcomes (Tims and Parker, 2020). Moreover, the relationship between peers is relevant too: co-workers can imitate job crafting behaviors, with various outcomes (Demerouti and Peeters, 2018; Bakker et al., 2016).

Third, Tims and Parker (2020) deal with social context as "being involved in job crafting" (p. 32)—that is, "team-level job crafting", where "the work group collectively changes how work is organized and performed" (ibidem). The most important contributions start with Leana and colleagues' (2009) perspective, who underline the positive results of team-level job crafting in terms of satisfaction, engagement, quality of care, and commitment. Other important contributions come from McClelland and colleagues (2014), Tims and colleagues (2013), and Mäkikangas and colleagues (2017), which we will deal with later.

Fourth, Tims and Parker (2020) highlight the importance of the social factor of job crafting—that is, the role of social context as a moderator, as examined by Sekiguci and colleagues and Shin et al. (2018). In particular, Sekiguci et al. (2018) underlined the importance of social skills to reinforce the relationship between autonomy and individual job crafting, even though social status influences the relationship too. Sekiguci and colleagues (2017) adopt the socially embedded perspective, which claims that "jobs, roles, and tasks are embedded in an interpersonal structure" (p. 6), to examine the relation "between job autonomy, social skills, and employee status as factors that influence employee job crafting" (p. 4). Their studies show that a higher level of autonomy is positively related to job crafting. In workplaces where roles, jobs, and tasks are highly embedded, social skills are vital for facilitating the process of job crafting among employees. In reality, job making improves social skills and "fulfils their basic needs, such as human connection with others, control over job and work meaning, and positive self-image" (Sekiguci et al., 2017, p. 9). In addition, the amount of social skills moderates the

relationship between work autonomy and job crafting: a high level of social skills augments the influence of job autonomy on employees. According to the authors, the association between autonomy and job crafting is stronger when people have a greater opportunity to influence coworkers.

On the other hand, Shin and colleagues underline that the relation between job crafting and work engagement is strengthened by emotional support, thanks to the acceptance and sustainment of experimentation, while it is weakened by instrumental support. More specifically, the authors draw on the Job Demand-Resource Model of job crafting to argue that the emotional and instrumental support of co-workers mediates the relationship between job crafting and work engagement. In particular, the emotional support by co-workers is likely to improve the relation between job crafting and work engagement, either by "providing important social resources" (p. 5) or by reducing the negative effects of "the hindrance demands on work engagement" (p. 5), such as "emotional demands or demanding interactions with others" (ibidem). Thus, Shin and colleagues (2018) claim that the emotional support from co-workers can strengthen the relationship between job crafting and work engagement. On the other hand, instrumental support—that is, receiving tangible and physical assistance from co-workers —is claimed to increase work engagement when crafting occurs at a collective level, but when crafting happens at the individual level, the relationship with engagement is stronger when co-workers' instrumental support is lower (Shin et al., 2018). Shin and colleagues provide evidence that engaging in job crafting activities results in better performances, thanks to the mediating effect of the work engagement, identified as a linking mechanism between job crafting and job performance. Moreover, they show that instrumental and emotional support have different effects in interacting in the job crafting process. In any case, the literature on job crafting, as underlined by the authors, considers instrumental support a helpful resource for job crafting if this may help reaching personal and professional goals and development (Shin et al., 2018).

Job crafting is proactively started by some workers and has an impact on the colleagues: for this reason, according to Tims and Parker (2020), it needs to be causally explained. In fact, according to Tims and Parker (2020, p. 34), when job crafting behaviours have an effect on coworkers, they are more likely to attribute responsibility "for the behaviour and not the situation" (Tims and Parker, 2020, p. 34), since individuals are believed to act as a result of their own volition. Moreover, if coworkers are impacted in both a positive and negative way, they will want to know why the individual is initiating changes in their employment, according to the attribution of personal causation (Tims and Parker, 2020 The prosocial motivations

(Grant et al., 2008) — the desire to benefit others — are taken into account by co-workers when recognising the prosocial behaviour of an individual. Although job creating activities are designed to improve the condition of a single employee, they can also be beneficial for co-workers; hence, co-workers will evaluate how the outputs can benefit them. Thus, the colleagues will attribute the prosocial motivation of the job crafting activity based on whether they are impacted positively or negatively by this process. The authors emphasise the significance of trust propensity in assigning a prosocial motivation to job crafting: the higher the trust propensity of colleagues, the greater their likelihood to attribute a prosocial motivation to the job crafter; in this case, the influence is both positive and negative.

In the attribution of high or low prosocial motivation, the co-worker's perception of the job crafter's other-orientation is also important; in fact, a higher other-orientation increases the likelihood of attributing a higher prosocial intention when the colleague is both positively and negatively affected. Such an attribution of prosocial attitude is especially pertinent since it will influence the coworker's support or hostility towards the job crafter. This attitude of the co-worker will also influence the outcomes of the job crafting activity for the job crafter (Tims and Parker, 2020): if he or she feels support for their activities, this will increase their affective well-being at work, whereas an antagonistic attitude from their colleagues will have the opposite effect (Tims and Parker, 2020, p. 41). In fact, individuals who have strong self-monitoring competence are more likely to be attentive to feedback and to what colleagues and leaders convey about them; hence, they will be more impacted by the impressions of others (Tims and Parker, 2020).

In the model proposed by Tims and Parker (2020), the relative social status of co-workers also acts as a moderator between the co-worker's response and the crafter's affective well-being: if the relative social status of co-workers is higher than that of the crafter, the attitude of the co-worker towards the crafter will have a greater impact on the crafter's well-being. In the model, Tims and Parker (2020) highlight how the experienced affective job crafting outcomes influence the likelihood for the crafter to engage in these activities again: a positive affective experience will determine the likelihood of repeating job crafting activities, whereas a negative affective experience will inhibit future activities. In conclusion, Tims and Parker (2020) emphasise the complexity and significance of the social processes that determine "the affective outcomes of proactive employee behaviours" (p. 45): the crafter's orientation towards others and the coworkers' reactions determine the outcomes for the crafter and the achievement of his or her goal. In addition, this influences future intentions for behaviour: "experienced affective

outcomes […] may signal whether it will be wise to engage in similar job crafting behaviours in the future" (p. 45).

Therefore, as it can be observed, different aspects of the collective dimensions of job crafting can be identified; they should be explored more in depth to have a better understanding of the phenomenon. First, the team-level job crafting—that is, the job crafting activities carried out at the level of the group; second, the consequences—expected and not—of the crafting behaviour of a worker on his or her colleagues; third, the relationship between the employee who crafts his job and the leader with whom he has to interact.

9.2.2 Team-level job crafting

Collaborative crafting can be defined as how "teams together combine their efforts and decide how to craft their jobs" (Tims et al., 2022, p. 64). It consists of a collective effort of the members of the team, who are intrinsically motivated to achieve some team goals or objectives (Tims et al., 2022). Since job crafting takes different forms for the various individuals and is not the same for every colleague, a collective dimension of job crafting involves a synergic effort and a collective decision about the direction of job crafting, how it's done, and with which goal (Mäkikangas et al., 2017; Tims et al., 2013).

Some individual features are more important for collaborative crafting: Mäkikangas and colleagues (2017), for instance, found that self-efficacy and the positive affectivity of the team members are associated with day-to-day collective crafting. In the same way, traits such as conscientiousness, agreeableness, and extraversion are connected to job crafting (Tims et al., 2022).

Tims and colleagues (2015) examine the problem of the consequences of job crafting on co-workers; in fact, they claim, the literature has mainly focused on the individual level of job crafting and its positive impact on workers. However, "individuals working in an organisation usually do not perform their tasks in complete isolation from their colleagues", but they collaborate with them or are influenced by them; in fact, "the crafting of one person may also have implications for the job of another person" (Tims et al., 2015, p. 728). As Tims et al. (2013) underline, the organisation of work in teams makes it essential for individuals to contribute common knowledge, ideas, and the decision-making process in an interdependent fashion, which can impact the whole team. Therefore, Tims and colleagues highlight that "individuals may refer to another type of job crafting, one that is directed to and initiated at the individual level" (Tims et al., 2013, p. 431).

In fact, Leana and her colleagues (2009) suggest that workers can do job-crafting activities both individually and as a team at the same time. According to their assertions, a form of "collaborative crafting" is carried out by employees as an "ongoing and implicit process whereby work practise is developed and shared informally among workers. Collaborative crafting involves joint effort among employees in the service of changing work processes" (Leana et al., 2009, p. 1173). Their study on teachers in early childhood education demonstrated that collaborative crafting was related to a higher quality of teaching with respect to individual job crafting. Therefore, claim Tims and colleagues (2013), performance may benefit from team-level job crafting activities, especially when people have to work together (p. 432). Tims and her colleagues (2013) argue that the process of team job crafting is similar to the job crafting activities carried out by individuals and define it as "the extent to which team members combine efforts to increase structural and social job resources as well as challenging job demands and to decrease their hindering job demands," underlining that "team crafting does not imply that every team member needs to craft the same job resources and job demands, but deciding what and how to craft is a team process" (Tims et al., 2013, p. 432). According to Kira et al. (2010), team-level job crafting can be the first step in making job crafting a standard organisational practise. In fact, as proposed by Kira and colleagues (2010), jobs can be crafted by collaborating among different actors, such as the individual, his co-workers, and managers, as well as other stakeholders.

Makikangas and colleagues (2017) write that team-level job crafting is "a process in which team members decide what to craft and how to craft it through communication, cooperation, and coordination" (Makikangas et al., 2017, p. 775).

Tims and her colleagues (2013) highlight the mediation role of team-level job crafting for team work engagement and performance, in a similar fashion for the individual and the team level, and show that the "employees who worked in teams where team members crafted together were more likely to engage in individual job crafting" (p. 447). Moreover, the team and individual-level work engagement were related, but they kept their own behaviours and those of the team distinct. In fact, the team's job crafting behaviour is not the result of individual crafting activities but is on a different level (Tims et al., 2013). In sum, Tims and colleagues (2013) suggest that individual performances may be enhanced by the behaviour of the team and that teamwork engagement can be fostered thanks to resources and challenges obtained through team job crafting activities; these results can then cross over to the individual level (Tims et al., 2013). However, while job crafting behaviour at the team level stimulated job crafting by the employee, the other way around it wasn't true (Tims et al., 2013). Therefore, as claimed by

Mäkikangas and colleagues (2017, p. 775), "team job crafting is characterised as a process dependent on both the individual and the context, and the reciprocal relation between the two". Collaborative crafting has some relevant consequences both at the individual and team levels. As for the individual work outcomes, the most immediate one emerging is work engagement (Tims et al., 2013; Leana et al., 2009; Hu et al., 2019). Moreover, collaborative crafting is connected to innovative work behaviours and a higher level of satisfaction, according to Uen and colleagues (2021) and Alonso and colleagues (2019).

In terms of team-level outcomes, Tims and colleagues (2022) emphasise that employee engagement is linked to better team performance, particularly when the team engages in collaborative job crafting. An example is proposed by Luu (2017), who shows that the team involved in collective job crafting showed a higher level of resilience and could better assist their customers. In this case, employees showed a service attitude that allowed them to put others' needs before their own, benefiting even people who were outside of the team.

In their empirical study, McClelland and colleagues (2014) show that team-level job crafting is important for positive outcomes in terms of work engagement and performance. Their results also show that "collaborative crafting predicts team control, team efficacy, and team interdependence" (McClelland et al., 2014, p. 475), while control, efficacy, and interdependence predict the work engagement of the team members (ibidem). The influence of employees on each other's behaviours is confirmed by Bakker and colleagues (2016, p. 182) as well: they show that colleagues working together can collaborate to make their shared environment better and to increase the person-environment fit.

Individual and collective performance and satisfaction are linked when it comes to collaborative job crafting; in fact, Mäkikangas and her colleagues (2017) note that as the level of job crafting increases — in terms of augmenting structural and social job resources — the association between individual work engagement and perception of team performance becomes stronger. The authors (Makikangas et al., 2017) base their argument on the Job Demand Resource Model. They say that when teams put a high value on the increase of social and structural job resources—that is, when they put a high value on autonomy, altruism, and achievement—individual engagement and performance go up in the same way. Moreover, when engaged individuals work in contexts with high levels of shared job crafting, where the whole team expands social and structural job resources, they "flourish" (p. 783) and increase their performances, both at the individual and team level. Therefore, "by stimulating individual work engagement, shared job crafting enables enhanced team performances" (Mäkikangas et al., 2017, p. 783).

Leana and her colleagues (2009) point out how important the "community of practise" is to the "collective dimension" of job crafting. In the "community of practise," members decide on their work together by sharing knowledge and talking about how to change their work to meet their goals. The authors highlight that, when they have the possibility, workers engage in both the individual and collective forms of job crafting, and that the latter is related to task interdependence and social connections with colleagues: they talk about "collaborative job crafting", referring to the customization of work and its organisation by workers themselves (2009, p. 1170). Furthermore, Leana and colleagues (2009) discovered a positive relationship between the quality of performance and participation in collaborative crafting activities, which is especially important for less experienced workers who could learn more about how the quality of the outcomes is related to their daily activities. A further element to consider, according to Leana and colleagues' (2009) perspective, is the lowering of the feeling of control over the job when the interdependence of tasks is high.

In the end, these results show that both individual and group job crafting can lead to better work outcomes in terms of employees' work engagement, performance, and satisfaction, as well as group performance, group engagement, and satisfaction (Tims et al., 2022).

Team-level job crafting draws on the social psychological theories that deal with norms, learning, and emotional contagion. As explained by Bakker and colleagues (2016), employees imitate each other's behaviours and attitudes when working together; they shape their responses according to what they can observe. Social norms, working conditions, and other social factors in organisations are also likely to influence and affect how individuals and teams design their jobs (Mäkikangas et al., 2017; Bakker et al., 2016).

9.2.3. The impact of job crafting on the social context

Job crafting has been shown to have a variety of effects on both individuals and teams. It is critical to emphasise the effect on co-workers and the social context.

Indeed, Zhang and Parker (2019) claim that the individual approach crafting has some positive effects on co-workers, which Bakker and colleagues (2016) support by arguing that job crafting behaviours are copied and imitated by colleagues. Moreover, a positive relationship was found between the crafting behaviours of actors and co-workers. Peeters, Arts, and Demerouti (2016) show that the demand crafting was correlated between co-workers as well and that the approach-resource crafting is transferred among different colleagues when empathic concert is present; in fact, the accent is put on the social dimension of the resource crafting activity, which

increases as the emotional closeness augments. According to Peeters and her colleagues (2016), the "expansive" job crafting behaviour of an actor—that is, seeking challenges and seeking resources, according to the Job Demand-Resources Model of Job Crafting (Demerouti and Bakker, 2017)—is likely to be transmitted to a colleague. However, the presence of feelings of warmth and understanding is important; in fact, "individuals seem to influence their colleagues' level of resource-seeking behaviours particularly when they relate emotionally to them" (Peeters et al., 2016, p. 828).

In this sense, social support is important: to ensure that the outcomes are positive for the crafter, it is critical to involve his or her colleagues. In fact, the way the co-workers react determines whether the results are good or bad (Tims and Parker, 2020). Indeed, when job crafting has a positive impact on colleagues, they attribute a higher prosocial motivation to job crafting and, as a result, respond positively. When colleagues are negatively impacted by job crafting, they perceive a lack of prosocial motivation and react negatively to it.

Different factors can affect how others judge someone's job crafting. For example, Fong and colleagues (2021) say that when someone does avoidance crafting, the supervisor's evaluation will be lower if the crafter has less political skill, and vice versa.

As Nielsen and Abilgaard (2012) argue, following the job demand-resource model, different jobs have peculiar configurations of job demands and resources and imply different ways to carry out job crafting behaviours. In fact, Berg and colleagues (2010) confirmed that different opportunities for job crafting are perceived and put into practise between blue- and white-collar workers.

Tims and colleagues (2015) adopt the point of view of the job demand-resource model of job crafting and focus on one aspect of the job crafting evidenced: hindering job demands, which consists in decreasing those job demands that are causing strain and stress and lowering their performances while increasing challenging demands (Tims and Bakker, 2010). The authors emphasise that the focus of job crafting is on the individual level, and that individuals are not motivated by a desire to harm colleagues or the organisation, but rather by a desire to maximise their level of well-being at work. However, Tims and her colleagues underline that decreasing hindering job demands is the most likely behaviour among the job crafting techniques to affect colleagues in a negative way and therefore generate negative reactions. The study therefore focuses on colleagues that work together regularly to understand the consequences of such individual modifications carried out by one of the colleagues' well-being. In fact, they argue that "when employees try to decrease the hindering job demands on their own initiative, their colleagues report higher levels of conflict with each other: […] this type of crafting may not

always be appreciated by colleagues" (Tims et al., 2015, p. 743). Hence, the consequences of job crafting can result in a less demanding job for those who are actually modifying their job but an increased burden and workload on their colleagues, which may lead to a reduction in well-being and more conflicts with colleagues. Moreover, the relation between the decreasing hindering job demands reported by colleagues and partner burnout was mediated by workload and conflict. In summary, the study found that one of the employees' hindering job demands increased workload on the colleague, resulting in a higher level of conflict for both of them as a result of the changes. According to Tims and colleagues (2015), a high amount of workload is positively related to exhaustion, which can lead to disengagement for both the worker and the colleague; the explanation for this could be a process of crossover between colleagues.

According to the literature (Demerouti and Peeters, 2018), the transmission of daily job crafting activities can happen in three ways. First, a direct impact can be identified, in which the behaviour of a co-worker can influence the employee; such an impact comes from an empathetic attitude in which co-workers put themselves in the other's shoes and manage to share feelings (Demerouti and Peeters, 2018). Second, another type of impact is the "vicarious impact" (Demerouti and Peeters, 2018, p. 5), in which employees can learn which ways of behaving are most effective by observing others' behaviours and the impact they have. Third, an "ambient impact" (ibidem) is present – that is, the influence on the behaviour of the single individual by the collective behaviour of colleagues, which shapes the work environment and the climate present in it. According to the authors, individuals tend to replicate their colleagues' behaviour when they are recompensated for it, and they are more likely to start job crafting activities that are more coherent with the social norms and with the behaviours the organisation accepts and promotes (Demerouti and Peeters, 2018; Tims et al., 2013).

To study the interactions between colleagues who work closely together, it is effective to focus on dyads — that is, colleagues who interact daily — and ask each of them questions. Peeters and colleagues (2016) examine the "crossover activities" in dyads of colleagues that interact on a daily basis—that is, they focus on a "dyadic, inter-individual transmission of well-being between closely related individuals that occurs in a particular domain (e.g., the workplace or family)" (Peeters et al., 2016, p. 820). Drawing on theories about social learning and the self-determination theory, the authors argue that when a worker is crafting their job by engaging in seeking challenges or resources, their colleague in the dyad will be stimulated to do the same through an imitation mechanism. Empathic behaviour is considered an important element in the crossover process: Peeters and colleagues find that "crossover seeking resources from the actor to the partner takes place only when the partner is high in empathy" (p. 827), thus

underscoring the importance of empathic behaviour in the organisation. Moreover, the self-rated adaptivity of the team was positively related to the daily basis of seeking challenges and resources. According to Peeters and colleagues (2016), resource-seeking behaviours are social activities, and feelings of warmth, concern for others, and compassion facilitate them; hence, feeling particularly attached to their colleagues makes people more likely to influence their resource-seeking activities.

Another study on dyads was conducted by Bakker and colleagues (2016), focusing instead on the consequences that the direct colleagues face when someone they work with modifies their job, arguing that modifications of the job are likely to "influence co-workers' work engagement" by imitating each other's behaviours (Bakker et al., 2016, p. 170), drawing from social cognitive theory. Also, they seek to understand to what extent the job crafting by one worker can affect the other's work engagement" (p. 170).

Consistent with the job demand resource model (Bakker and Demerouti, 2007; 2017), proactive behaviour has some important consequences. In particular, "employees craft their own work environment, and […] their direct colleagues shape this behaviour" (Bakker et al., 2016; p. 181): in fact, when workers modify their environment by learning something new at work or asking for help, colleagues are motivated to do the same, as claimed in the social learning theory. People are inclined to imitate the attitudes, ways of behaving, reactions that the others have (Bandura, 1977; 1982); therefore, they will deduce which behaviours are most appropriate and, at the same time, figure out which characteristics of work can be modified.

Moreover, as evidenced by Bakker and colleagues (2011), work engagement is important for the achievement of positive organisational outcomes, such as organisational citizenship, financial results, and in-role performance; hence, improving the level of work engagement is an important objective for the organisation. Bakker and colleagues (2016) demonstrate that some forms of job crafting influence one's own and colleagues' work engagement, leading to positive organisational results (p. 182). More specifically, the authors argue that the positive relation between job crafting and work engagement comes from the fact that, by altering job demands and resources, a better alignment is achieved and that job resources mediate the process. Another important aspect emerging from the research Bakker and colleagues (2016) conducted is the fact that the top-down approach to taking care of human resources can coexist with the bottom-up approach to job crafting, as it will be detailed more later.

Demerouti and Peeters (2018) conduct another study on dyads, adopting the point of view of the job demand resource model and focusing on reduction-oriented job crafting, which can be present in the forms of minimising the demands and demand optimisation. As for the former,

the authors intend to "make the jobs less intense" (Demerouti and Peeters, 2018, p. 2), whereas the latter is defined as making "work more efficient (ibidem). The two of them happen on a daily basis and can potentially be transmitted among colleagues. In fact, co-workers can influence each other's behaviour "directly through observation or with a vicarious impact, through learning or verbal persuasion" when the outcomes of such behaviours are seen as positive by the employee (Demerouti and Peeters, 2018, p. 19).

Bizzi (2017) has an interesting point of view. He combines role theory and social network theory, arguing that the two go hand in hand. In fact, role theory explains how job crafting affects others, while social network research identifies who those colleagues are. In fact, Bizzi (2017, p. 2) underlines that "if people have to craft their jobs on their own, what is the effect of others on an individual's job crafting?". This provides the opportunity to reconsider the significance of the social context. Bizzi (2017) notes that the distinction between job crafting and other initiatives to modify tasks is that the changes are made by individuals independently of others; if changes are made in response to social interactions with others, this becomes a form of collaborative task change initiative, as Leana (2009) also emphasises. Consequently, job transitions can vary depending on the roles of other individuals. Therefore, Bizzi (2017) argues that the role theory is applicable to the analysis of the collective dimension of job crafting: in fact, the role theory helps to explain "how the task changes of an individual are influenced by the expectations of others, who are referred to as 'role senders'" (Bizzi, 2017, p. 2). Social network theory, on the other hand, explains "how to understand and measure how people are connected, thereby creating the conditions for social influence" (ibidem). Bizzi (2017) identifies the role of senders, or those actors who interact with a worker on issues pertaining to how tasks should or should not be performed by the individual, as jobs are not intended to be performed in isolation. Instead, the tasks that an individual performs have an effect on others and their jobs, thereby giving them a stake in those. The job characteristics and interactions with others also create certain expectations for the role, thereby limiting the incumbent's ability to modify the job. Thus, Bizzi argues (2017, p. 3) that "combining these logics, an interesting new argument emerges: the job crafting of an incumbent can be affected not only by the characteristics of his or her own job, as traditionally documented in prior research (Berg et al., 2010; Grant and Parker, 2009; Leana et al., 2009), but also by the characteristics of the jobs of all employees the incumbent is connected to—the network contacts." Therefore, the author considers the features of jobs proposed in the Job Characteristics model by Hackman and Oldham (1976, 1980, 2010)—task autonomy, skill variety, task significance, feedback, autonomy, and task identity—and explains the effect on

the job crafting activities and performance of an individual of the network's job characteristics. The model developed shows that individual job crafting is positively influenced by the network's task autonomy and feedback. In fact, individuals whose jobs have a low degree of autonomy are more likely to identify with their group than with their own jobs and therefore feel the need to influence others more

The importance of considering the job characteristics of contacts — and not only of co-workers — is therefore underlined by Bizzi (2017), who argues that individuals' perceptions of job characteristics are influenced by others and their job complexity, even though these "others" don't need to be direct co-workers but rather contacts, to enhance social comparison.

9.2.4. Leaders and crafters

Wang and colleagues (2020) make a strong case for the social dimension of job crafting by pointing out how various studies have highlighted the influence of social factors on job crafting and recognising the former as precursors to the latter. In particular, Wang and colleagues argue that employees' job crafting is influenced by "organisational insiders" (p. 8016), such as leaders and colleagues, and "organisational outsiders" (ibidem), including customers, patients, and family members.

More precisely, inside the organisation, the role of the leader in determining the way in which job crafting is carried out and what its impact is, is very important, according to the Job Demand-Resource Model (Bakker and Demerouti, 2007). The role of the leader in providing resources is acknowledged in the literature: "leaders can provide employees with opportunities, valuable feedback, and empowerment (Wang et al., 2020; p. 8015). According to the authors, supportive and positive leadership styles, such as employee-oriented leadership, transformational leadership, and servant leadership, are positively linked to promotion-focused job crafting.

However, Wang and the other scholars (2020) underline the importance of colleagues as an essential organisational factor in determining the job-crafting behaviours of individuals. In particular, along with the job demand-resource model, "colleagues provide employees with useful job resources" (Wang et al., 2020, p. 8016), especially concerning forms of social support such as valuable feedback and unique perspectives. Hence, argue the authors, the worker can feel motivated to craft their job in a proactive way when they feel social support from colleagues: more specifically, positive social factors, such as positive leadership and social support from co-workers, leader-member exchanges are positively associated with

promotion-focused job crafting, that is, the job crafting activities such as increasing job resources, seeking challenges, task, relational, and cognitive crafting directed to the expansion of the job. This determines the accumulation of resources that has positive consequences in terms of performance and well-being. Together with the positive effect of co-workers encouragement, favourable and supportive leadership plays an even more important role in determining positive job crafting activities. Therefore, Wang and colleagues (2020) underline the positive effect on performance and well-being that is triggered by positive, supportive social factors.

In sum, as we have explained earlier, an individual's job crafting behaviours have an impact on the environment around them and on their co-workers. In fact, Tims and Parker underline the importance of involving one's colleagues in the job crafting process to make sure that the outcomes are positive for the crafter. Job crafting results are influenced by the colleagues' responses. Indeed, co-workers will attribute a certain level of prosocial motivation to one's job crafting activities, which determines their response. For instance, when job crafting has a positive influence on the colleagues, they will attach a higher prosocial motivation to the job crafting behaviour, responding positively to the actions. On the other hand, when the job crafting has a negative impact on the colleagues, they will assign these actions an egoistic motivation, which leads them to respond negatively (Tims and Parker, 2020).

Fong and colleagues (2022) argue that the employee characteristics can determine the reactions of the supervisor, which are negative in case of avoidance job crafting. In particular, the employees' political skills will influence the supervisor's reaction: if the level of the political skills is lower, the reaction will be more negative, and vice-versa (Fong et al., 2022).

Dierdorff and Jensen (2018) hypothesised that work characteristics and social interactions among co-workers might modify the U-shaped link between job crafting and performance ratings. They discovered that high autonomy boosted the favourable effects of work crafting on performance evaluations when job crafting is at low to moderate levels, but high ambiguity decreased these effects when job crafting was at moderate to high levels. Strong social support mitigated the negative effects of work crafting on supervisors' performance ratings, but not on colleagues' ratings when job crafting was low to moderate. The U-shaped connection between job crafting and performance assessments was not significantly moderated by workplace interdependence.

In sum, according to Tims and colleagues (2022), Job-crafting research that concentrate on the viewpoint of colleagues and supervisors demonstrated that when somebody else notice job crafting, they analyse and respond to it, and their positive or negative responses have

consequences for the job crafter's (and sometimes their coworkers') well-being and performance. In addition, the relationship between observable job crafting and others' reactions may be influenced by colleague and job crafter qualities, in addition to the features of the work environment.

10. Crafting beyond the work domain

In their overview of the job crafting research, Tims and her colleagues (2022) notice the importance of the extension of the concept of job crafting beyond the other life domains: it is a research trend on job crafting in career (career crafting), but also on the crafting around the boundaries between work and non-work domains. We will deal first with career crafting and in a second moment with the crafting activities related to the boundaries between work and non-work experiences.

10.1. Career crafting: a long-term perspective

De Vos and Akkermans created the concept of "career crafting" in 2019 after seeing that the "conventional career" of "one life, one career" couldn't be applied to the paths of a diverse population that has a wide range of employment situations. Hence, career crafting consists of "an individual's proactive behaviours aimed at optimizing career outcomes through improving person-career fit" (De Vos and Akkermans, 2019, p. 129).

The term refers to the necessity to be proactive throughout one's whole career, with the aim to increase the resources in their career and open up possibilities that could help the individual face the evolution of their work but also their own personal changes, in terms of needs, values, or interests (Tims and Akkermans, 2017). Thus, it refers to the dynamism of one's needs and demands in a changing environment: career crafting is essential for individuals to make it possible for their career to be sustainable over time (De Vos and Akkermans, 2019). Those who are shaping their careers actually consider their motives and career goals; they are conscious of how their decisions will affect their employability, performance, engagement at work, and long-term career success in the short and long term, respectively.

Yet, the conversations about how to make careers more sustainable so that people can work longer and in better health serve as the basis for the reflections on career crafting (Tims and Akkermans, 2017).

Van Der Heijden and De Vos (2015) defined sustainable careers as "the sequence of an individual's different career experiences, reflected through a variety of patterns of continuity over time, crossing several social spaces, and characterized by individual agency, herewith providing meaning to the individual" (p. 7). The sustainability of one's career and their opportunities, argue the authors, are influenced by the choices they make and their learning cycles. Employees can weigh the benefits and drawbacks of their career decisions in order to promote the sustainability of their careers; their objective is to meet any immediate needs their careers may have without impeding the ability of those careers to address future needs.

Three main factors are associated with the crafting of a sustainable career (De Vos et al., 2019): first, employability, in terms of being able to understand which are the right competences and developing them; being proactive; and being flexible. Second, it is important to be adaptable— that is, to be able to face changing demands both in the personal and the professional spheres. Third are career competencies, which are critical for maintaining employability since they make it easier for the individual to adapt, learn continuously, and develop skills that are necessary for good career choices. According to Akkermans et al. (2013), there are three different categories of career competencies: reflective, communicative, and behavioural. Reflective career competencies involve understanding one's purpose and principles and matching them to one's career. Communicative career competencies also involve networking and self-profiling in order to effectively communicate the pertinent aspects of one's career. Behavioural career competencies, which include exploring a career path and being in control of their career.

More specifically, Akkermans and Tims (2017) argue that combining job crafting with good career competencies is associated with subjective career success in terms of maintaining employability and a healthy balance between work and non-work spheres. They argue that job crafting can be the key to transforming the career competencies into actual proactive behaviours that can lead to a successful career. In fact, they point out that career competencies can act as personal resources that can spark a motivational process that fosters expansive job crafting behaviour (e.g., increasing challenging demands or structural and personal job resources), leading to career success. Akkermans and Tims (2017) found that individuals whose career competencies are higher tend to craft their jobs more to increase their resources and their challenges. Hence, career competencies are an antecedent of job crafting: being aware of one's passions and strengths, being a good communicator, and being able to set goals are helpful in searching for good opportunities and improving the person-job fit. Therefore, the authors argue that job crafting could be connected to the outcomes of a motivational process

(especially career success) and to perceptions of higher levels of internal and external employability and work-life enrichment (Akkermans and Tims, 2017). Thus, the concepts of job level and career level are closely related, and an integration would be interesting.

Tims and Akkermans (2020) argue that job crafting is related to career-person fit due to the fact that it increases the employability of the individual by choosing to engage in some activities that allow for this, such as acquiring new skills and working on personal development. Indeed, they recall Akkerman and Tims's empirical findings (2017): the positive relationship between job crafting and employability confirms the connection between job crafting and career outcomes.

Thus, the conceptualization of career crafting—intended as behaviours that aim at shaping one's career—underlines the importance of agency and ownership to be successful. Sustainable careers can be created by increasing the person-career fit through a combination of career competencies and proactive behaviours (Tims and Akkermans, 2020).

Despite the fact that career crafting is still in its infancy, numerous research are being conducted to better understand the concept. Most importantly, proactive career construction should be combined with proactive career reflection in order to engage in effective, successful career crafting behaviours.

10.2. Leisure Crafting

Crafting activities might not focus only on the work realm but also in one's personal life. Tims and her colleagues (2022) define leisure crafting as the "proactive changes individuals make in their private lives to experience enjoyment and meaning (Berg et al., 2010) through activities and experiences that are not possible during working time" (p. 63).

Similarly, Petrou and Bakker (2016) claimed that leisure crafting consists in "the proactive pursuit and enactment of leisure activities targeted at goal setting, human connection, learning, and personal development" (p. 508). This type of crafting is more often encountered among people whose jobs have high demands and low autonomy, with a compensation effect (Petrou et al., 2017).

Similar to leisure crafting is work-life balance crafting, identified by Sturges (2012). Tims and colleagues recall (2022, p. 63) that work-life balance crafting consists of "proactive, self-initiated, and goal-oriented physical (e.g., work from home), relational (e.g., managing expectations of supervisors or friends regarding workload), and cognitive (e.g., defining their view on work-life balance) crafting techniques to shape one's work-life balance".

Despite the importance of such forms of crafting in people's lives, we will concentrate on job crafting and, to a lesser extent, career crafting.

Chapter 3. Research Questions and Research Design

Chapter Overview

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Chapter overview

In this third chapter, we are going to articulate the research questions that drive our investigation. We will explain the reasoning and will point out our argument, precising our questioning.

We will explain how the general questions are articulated into more precise questions, which we examine in the three research papers that will be presented in the second part of the dissertation.

Moreover, we will present the research design chosen for our investigations in the three papers, explaining the methodology chosen as well as the rationale for doing so.

Finally, for each of the three papers we will explain how the research method chosen was carried out in details.

1. Research Questions

The preceding sections involved a comprehensive examination of the scholarly works pertaining to employability, sustainable employability, job design, and job crafting.

The initial chapter of the study was devoted to a comprehensive investigation of the diverse conceptualizations of employability over time, taking into account the perspectives of both employers and employees. The discourse centred around the notion of sustainable employability, its genesis, and the favourable outcomes it yields for both individuals and entities.

Furthermore, it has been highlighted that sustainable employability can be established by providing individuals with the opportunity to realise their potential and attain a "capability set of tangible opportunities", as described by Van Der Klink et al. (2016), which enables them to achieve sustainable employability. As previously noted, in order for an individual to acquire a capability set, they must transform their personal inputs or resources into a capability set. In order to facilitate this process, it is necessary to have conversion mechanisms in place, which may be either personal or job-related conversion factors.

The current PhD dissertation aims to investigate the above-mentioned conversion factors.

As stated earlier, Van Der Klink et al. (2016) propose a theoretical framework that regards work and personal resources as inputs that facilitate the attainment of valuable objectives. Subsequently, as a result of various factors related to both professional and personal domains, such as the ability to transform inputs into concrete opportunities, an advantageous level of

work performance can be achieved. The aforementioned result can be attributed to a "constrained choice" phenomenon, where contextual factors exert an influence on inputs, conversion factors, decisions, and choices. Van Der Klink et al. (2016) posit that individuals are more likely to attain sustainable employability when their work is not solely a means of financial support, but also possesses intrinsic value. Hence, it is imperative that value creation takes place at work, within the organisational setting, shifting from a personalised sense of ease to the employees' impartial competencies and from mere input to emphasising "resources and conversion factors" (Van Der Klink, 2016, pp. 76–78). The framework proposed by Van Der Klink and colleagues stimulates many questionings regarding how to enable the development of sustainable employability in the workplace, while achieving both professional and personal objectives. Sustainable employability encompasses satisfaction, well-being, and realization of value in the short and in the long term, and such process depends on the influence of some individual factors and contextual elements.

Our argument posits that the organisation of work has the potential to enable employees to shift from input to capabilities, allowing them to effectively contribute and realise their worth. The organizational environment facilitates the ability of employees to realize their potential, thus improving and influencing positively their job performance. The organization of work plays a crucial role in determining whether and to what extent sustainable employability is achievable by individuals. It is therefore an important conversion factor. However, sustainable employability entails not only an essential organizational component, but is also focused on enhancing and valuing the individuality of the employees. This implies that they have to be provided with adequate autonomy, with the leeway to develop their skills in autonomy, design their career evolution, define solutions to the problems in a proactive way – knowing that a supportive organization is by their side in their development. It is therefore critical to focus on the conversion factors, the elements that make this possible.

In fact, the enabling environment, which allows individuals to develop their autonomy and capabilities, by providing them with the resources but also the possibility to convert them into a real capability set, requires the presence and effectiveness of such conversion factors (Fernagu Oudet, 2016) – especially the organization of work.

Therefore, we delved into the intricacies of job design and its associated organisational concerns: we examined the initial theories related to job design and the evolution of these theories and ideas throughout the 20th century. We introduced the concept of job crafting, explaining its origins and evolution, the benefits and risks associated with these spontaneous behaviours. We analysed job crafting in terms of its antecedents and causes, consequences, and

ramifications. Additionally, we considered its influence on the dynamics in the workplace and in the interpersonal connections among colleagues.

As mentioned, through job crafting individuals can increase the feeling of ownership towards their job, by making it more suitable to themselves. Job crafting contributes in improving individual satisfaction and well-being, while reducing stress and deepening the connections at work, as well as improving the relationship individuals have with their job, favouring the process of finding more meaning in their job. The concept of job crafting deserves to be further investigated about the potential consequences in term of the development of employability for individuals.

In particular, job crafting could be linked to the problems around employability and its development. In fact, since employees proactively initiate a set of behaviours and feel entitled to do so, taking ownership for their job, could this behaviour help them in improving both their present situation at work and their future employability?

We consider the positive effects of job crafting in organizations, and take into account the need for both autonomy and a supportive and flexible organization of work to promote the conversion of resources into a capability set for the achievement of sustainable employability. Hence, in this thesis,

we aim at exploring to what extent job crafting can be considered a work conversion factor for sustainable employability. In other words, our goal is to understand whether and how job crafting can contribute to the construction of sustainable employability?

Also, we explore whether job crafting can contribute to employees' personal and professional development? Could we build a bridge between job crafting and sustainable employability?

Could sustainable employability be built in the everyday working life, finding satisfaction and meaning in the daily life, while planning for the long term? Hence, can job crafting promote the development of sustainable employability? And if so, how?

To delve into the intricacies of such broad questioning, we will adopt some more specific research questions, since they will allow us to investigate more thoroughly across three different studies. Hence, our attention will be directed towards three specific themes, which we will specify following.

2. Research Design

As we explained in the previous paragraph, the main research question of the dissertation revolves around whether job crafting can be a work conversion factor to enable the

development of sustainable employability. Since the question is large it is worth specifying it into narrower, more precise questions that have the goal to shed light on a particular aspect of the development of sustainable employability. To do this, we focused on three different studies, with the goal to investigate whether and how sustainable employability can be developed through job crafting.

2.1. Paper 1. The Shape of Hybrid Jobs

To understand what it means to be sustainable employable, we are first going to focus on what it means to actually be employable. As the world evolves, questions arise about how individuals can maintain their employability while facing the stress of constantly evolving and finding satisfaction in their job. Employees have to solve complex problems and need to use different sets of skills to perform well. In our first paper, *The Shape of Hybrid Jobs* (Gianecchini et al., 2019), we will explore how the evolution of the requirements of the jobs in terms of abilities entails that individuals will need to use different and evolving skill sets combined to perform their jobs effectively and tackle the complex challenges.

Our first study, *The Shapes of Hybrid Jobs*, was co-authored with Professor Martina Gianecchini and Professor Paolo Gubitta, from University of Padova, Italy. The goal of our research is to investigate how the evolving demands for different jobs requires the usage of various skill sets at the same time.

The research adopts the perspective of the T-shaped professional literature to examine the diverse configurations of job requirements that necessitate the utilisation of various skill sets for optimal job performance. Hence, we aim to understand whether different job profiles exist with respect to the type and quantity of abilities requiring higher levels of specialisation. The objective of this study is to determine whether there exist distinct individual or organisational characteristics that influence the probability of an employee needing to enhance their specialisation or expand their skill set.

The methodology adopted in this research is a quantitative one, on a set of 238 employees in the Veneto Region (Italy), representing a sample of 2,864 workers who signed a contract in November 2017 and were still employed in October 2018. The data was collected from an inquiry conducted by VenetoLavoro, a public organization in the Veneto Region.

Soft skills, functional-related skills, computer-related skills, and digital skills have been identified as four areas of skill specialisation. To ascertain the skill shape of the task, the vertical stem of the T (specialisation, expertise) was represented by skill level and skill usage

frequency. Instead, the horizontal stem was represented by the number of areas requiring a high level of skill specialisation.

The analysis included a cluster analysis and a multinomial logistic regression, both of which were conducted using the SPSS software.

From our study, it clearly emerges that various shapes of workers are present in the labour market, with different sets of skills and diverse levels of expertise required in their jobs. We could therefore delineate some types of workers, according to these variables, thanks to the cluster analysis we performed.

As said, various shapes of work exist: they can have either high or low levels of skills in some areas and these skills can be used more or less frequently in their daily work. The variability is therefore high, and it is interesting to understand the differences in these types of jobs and usage of skills more closely, with the goal of investigating how sustainable employability can be created across different workers.

Therefore, we focus our attention to some specific groups of workers in our two subsequent studies, using qualitative methodologies. In particular, in our second study, we focus on a highly specialized set of workers, while in our third study, our analysis concentrates on low-skilled workers and their coping strategies in a harsh world of work. We are interested by the possibility of presenting two opposite cases to grasp the differences and approaching two "extreme" cases seems interesting and rich of insights (Yin, 1992, 2003; Eisenhardt, 1989). It is also useful to grasp reliable theory thanks to the comparison of two opposed cases.

The two papers we present do respond to the features of the case study as delineated by Yin (1984; 2003): they have the goal of giving an explanation about a contemporary phenomenon within its real-life context, uses different sources, the data collection is guided by some previous theoretical knowledge. The conditions to choose a case study are present: the questions asked are wide and open, the researcher has little control on the events, and the topic is related to some contemporary events (Yin, 2003).

2.2. Paper 2. *Don't let me down! Job and career crafting for sustainable employability*

In our second paper, co-authored with Professor Florent Noël, from IAE de Paris Sorbonne Business School – Université Paris 1 Panthéon Sorbonne, *Don't let me down! Job and career crafting for sustainable employability*, we focused on the development of sustainable employability, emphasizing the individual experience both from the point of view of the

everyday life at work, and of the long-term career planning. This study investigates how individuals can tailor their job to better fit their needs through the modification of tasks, relationships, and their cognitive appraisal about their work. Our research attempts at examining the long-term effects of job crafting on sustainable employability, encompassing both immediate and long-term outcomes. Our research is focused on the individual strategies individuals engage in to modify their current role while at the same time planning their career trajectories, to avoid the obsolescence of their competences over time.

We conducted our study in a public research laboratory in physics located in Paris. The research topics on the lab are nuclear physics and particle physics. In the lab, there are four thematic groups, which include 15 research groups. There are also 3 technical services (electronics, IT, and mechanics), and 2 support functions (HR and administration, and logistics). The laboratory is involved in various experimental programs, which are pursued within wide international collaborations with other big research centres around the world, exploiting important technical infrastructure, such as particle accelerators, telescopes, or observatories. These programs cover important issues in particle physics, astroparticles, and cosmology. The projects carried out in the lab last long time, in general from 10 to 40 years.

The research programs are most of the times carried out in an international collaboration, which involves even thousands of people in various laboratories spread around the world. The coordination of the whole project happens at the level of the international collaboration, and the lab can have a more or less important say in this respect. The lab, therefore, has strong international relationships and collaborates to the massive experimentations by providing scientific expertise, but also by building some technical instrumentation that is required to carry out the experiments – such as telescopes, lenses for the telescopes, other parts of important instruments. In the lab there are various competences and roles that, combined, can elaborate complex physical theories, design and run an experimentation to test such theories, engineer and build complex instrumentations that are suitable to test the theories.

Conducting our investigation in a research lab seemed to us an interesting, though particular choice. In fact, our questioning is directed at understanding how individuals build their own sustainable employability, and to what extent job crafting could contribute to that. In the lab, the environment seemed appropriate for the achievement of sustainable employability by the individuals. In fact, in the lab people do not have many constraints: for instance, they can choose their working hours freely, as long as they achieve their results. Job crafting and the adaptation of the job to oneself is actually encouraged: people can modify the tasks and

relationships at work by agreeing to work in projects they find interesting and with people they get along well with.

The condition of extreme freedom is the case for the researchers, while the other roles have to bear more constraints: for instance, university professors have to make sure that the teaching activities are compatible with the research activities, while technicians have to respect some constraints – such as the necessity to be present in the lab to carry out their activities and the need to respect the requirement by researchers. They also have to respect deadlines, but in general they are granted much more leeway than in the industry.

Hence, since job crafting is openly done by anyone and encouraged by the direction of the lab, it is really easy for employees to discuss it, without any qualms from them. We could therefore really grasp interesting details about their job crafting and how they engage in crafting their career in the long term.

We chose to conduct our research by interviewing a sample of 30 people working in the lab, with different roles, level of seniority, competences and skill. The first two contacts were proposed by the technical director of the lab, and then the research continued thanks to the "snowball sampling": each interviewee proposed some references to contact for the study.

Various reasons convinced us to opt for conducting semi-structured interviews: first, the projects are long and often require people to quietly sit in their offices and write or solve mathematical equations, lines of codes, or designing some instrumentations. Although the tasks are complex, in order to perform them well, it's hard to explain what one is doing at the same time. Second, just observing the task is not easy to grasp what individuals are actually doing and how this is different from what they should to in their prescribed job. Third, individuals in their lab are proud of their job and their activities, and willing to explain in detail, so that it is understandable even for someone who is not an expert in the field. Fourth, we were interested in grasping the cognitive dimension in their job crafting process and in their career crafting strategies: hence, asking them to explain their thoughts are feelings about their job and grasping interesting aspects in their flow of thoughts seemed to us the most effective method. Fifth, one of our goals was to understand the cognitive dimension in a sophisticated organization, as well as the strategic planning to craft their job and plan their career both in the present and in the long term. The themes we discussed are not immediate or easy: to investigate these aspects, we decided to engage in an open conversation with the people in the organization.

As we will explain later, our research has demonstrated the ways in which individuals integrate job crafting and career crafting over both immediate and extended time frames, thus contributing to their sustainable employability.

2.3. Paper 3. *We're all in this together! Job crafting and prosocial behaviours among low skilled workers*

The third study, *We're all in this together! Job crafting and prosocial behaviours among low skilled workers* deals with the development of sustainable employability and specifically focuses on the challenges low-skilled workers encounter in their job and the tactics they engage in to face repetitive, monotonous, hard jobs, in an organization of work still devoted to Taylorism.

We examine the potential of job crafting as a coping mechanism for employee who experience challenging work conditions, focusing on how low-skilled employees can face stress and find satisfaction in their work through job crafting. Our goal is to comprehend to what extent individual and collective job crafting represent a way to compensate the strict directions received in a top-down way in their simple, routine jobs. At the same time, we explore the organizational features that have an important role in promoting the individuals' wellbeing.

The focus of our third study is, as mentioned, on low-skilled workers. The reasons for this choice are multiple: first, as it emerged in our first study, there exist a set of workers in the labour market that can be classified as low-skilled, and we aimed at understanding whether it is possible for them to actually maintain their employability and even create the conditions for themselves to reach sustainable employability. Second, we were interested in observing to what extent job crafting can be present even in simple, routinary jobs, which tend to be very much prescribed and don't have a large margin for manoeuvre. We aimed at exploring how people can modify the boundaries of their jobs and to understand which are the consequences on their colleagues. Third, we aimed at focusing on low-skilled workers, to explore the difference with the highly qualified workers we studied in the previous study. We aimed at understanding the variety of tactics, tools, and behaviours set up by the employees. Also, we aim at exploring the differences between the two types of organizations: the two organization represent two case studies (Eisenhardt, 1989), which can be considered as opposite due to the different characteristics.

The study was conducted on a medium-sized company in the north-west of the Parisian Region. The company has around 500 employees and operates in the retail-tech sector.

The company was selected by leveraging on the professional network. In particular, the HR team was sensitive to these themes and was open to the idea of letting the research being conducted in their warehouse of their logistics hub.

It is worth mentioning that the logistic hub is detached from the site where the rest of the company is located, which contributes to make the warehouse workers feel sometimes isolated from the other departments of the firm and to increase their sense of belonging to their team.

The methodology adopted for the study is the participant observation (Spradley, 1980): I had the opportunity to work with the employees of the warehouse in the above-mentioned firm.

Two periods of observations took place: the first in July 2021, the second in March 2022. The goal of splitting the observations in two different periods was to observe the differences in the intensity between two periods. In fact, the first period observed was a calm one, right after the closing week of June, which represents a peak period at the end of the semester. The second period of observation, instead, was more intense – at the closing week of the first trimester.

The methodology of the participant observation seemed adapted to the type of the study and the interest of the research. In fact, low-skilled workers' job is much more manual than other standard white collars jobs. The participant observation methodology allows the researcher to directly observe such type of jobs, and the modifications done to the work by the individuals. Observation is directed, simple, and doesn't require complicated questions that would put the workers in a difficult position. In fact, in a prescribed job, job crafting isn't encouraged at all – rather, it would be normal that workers try to hide such behaviours from their management in particularly hard working conditions. Thus, workers would hardly open up and describe the modifications of their job in the context of an interview for example, fearing the possible repercussions by the management.

Another reason that convinced us to opt for the participant observation is the possibility to create a stronger connection with the workers, which wouldn't have been the case for other qualitative methodologies, such as conducting interviews or a simple observation or shadowing. In fact, as underlined by the company, these workers wouldn't have been comfortable in an interview and might have felt judged in the inquiries about their work. Hence, they would have had some difficulties in opening up and share their experience with the researcher. A similar observation would have led to similar results, causing difficulties to the research to be continued well.

The participant observation has the privilege to put the workers and the researchers in the same position: both are experiencing the work situation. This allows the researcher to better understand the workers' conditions and experience herself how job crafting can be initiated spontaneously. Moreover, respecting the same schedule as the workers allowed the researchers to have a better understanding of the cadenced pace of work.

The participant observation allowed us to observe a complex situation (Spradley, 1980) – not only the activities, but also the interactions among people, the conventions and norms – which could be grasped only by being there and taking part in the working activities.

The research was carried out in a covert manner: the researcher didn't explain to the workers the real reason for her presence with them. On the other hand, she explained the workers that she was doing her internship to gather information on the jobs in the logistics sector for a master's thesis in logistics. The reason for not explaining the aim of the research was simple: similarly to what already mentioned, employees wouldn't have felt comfortable and wouldn't have shared as many detailed, knowing that the topic of the observation was not only their work and its content, but also their behaviour. Moreover, if the employees knew that their behaviour was being observed, they wouldn't have behaved as they usually do. Another reason not to explicitly mention that research on job crafting was carried out, but that the interest was on their work is that the employees reacted more openly to the possibility of showing someone their job. In that way, they explained what they did, the reason behind it, and even how job crafting was carried out.

Conducting research in a covert manner presented some ethical concerns: we will explain later how they were addressed.

3. Methdology

3.1. Paper 1. *The Shape of Hybrid Jobs*

The goal of our paper is to map the distribution of competences in the labour market, observe the shape of workers and understand which are the most important individual or function-related features that are related to the use of a set of competences in the market.

For this reason, we focused our attention to critical competences in the world of work, and in particular on four types of competences: function-related skills, soft skills, computer-related skills, and digital skills.

- *Technical or function-related competences* are those competences related to the type of job, hence specific to the particular function in which the worker operates. They have been identified through the ISFOL-ISTAT list of competence (from the Italian National Institute of Statistical Studies).

- *Soft skills* are intended as transversal competences that are related to the interpersonal abilities and emotional intelligence. They have been identified according to the framework proposed by Spencer and Spencer (1993).

- *Digital competences* are intended as IT and digital abilities. They are identified thanks to the Europass DigComp Framework, 2017. This framework presents a variety of competences that can be more or less advanced. We considered the first two dimensions (Information and Data Literacy, and Communication and Collaboration) as computer-related skills: they correspond to a basic level of knowledge and usage of such competences. They are used by a larger set of workers since they constitute the basis for everyday working activities.

  The three following dimensions (Safety, Digital content creation, and Problem Solving) represent more advanced levels of knowledge that are not as common in the world of work but some more specialization is required. In general, the jobs that require these competencies are at a higher level and performed by individuals with deeper competencies.

These sets of competences have been selected because they represent in a thorough way the kind of requirements demanded by jobs. The particular attention on the IT and digital skills come from the interest of the Observatory for Digital Professions, which aimed at shedding light on the level of penetration of digital skills on existent jobs, to learn about the technological components of the jobs.

As mentioned, the goal of our research is to understand to identify which are the shapes of jobs that are emerging in the labour market and evaluate the relationship with the workers' characteristics. A questionnaire was administered on a sample of 300 workers in the Veneto Regions. This survey is part of a bigger research project within the activities of Observatory for Digital Professions – a joint research project between University of Padova and he Veneto Region.

From a larger population of 2864 employees, 300 workers were extracted: they had signed a work contract in November 2017 and in October 2018 were still employed. The data was collected through Computer Assisted Telephone Interview (CATI). After checking for missing values and outliers, 62 respondents were eliminated from the sample. The sample we analysed is thus constituted of 238 workers, with an average age of 37.8 years, whose seniority in the labour market is around 15.5 years. 51.7% are female, 47.5% have a high school diploma, while 38.1% have at least a bachelor degree or more. In terms of type of contract, 59.2% of the sample

are employed with a temporary contract. Small companies are the most consistent component (49.2%), and they work in different sectors (39.1% in manufacturing, 29.8% in commerce, 31.1% in the service sector).

It is interesting to notice that the characteristics of the sample are influenced by the territory. In fact, Veneto Region is characterized by the presence of many micro-firms and small firms. Micro-enterprises are *those which employ fewer than 10 persons and whose annual turnover and/or annual balance sheet total does not exceed EUR 2 million*. Small firms are *enterprises which employ fewer than 50 persons and whose annual turnover and/or annual balance sheet total does not exceed EUR 10 million, excluding enterprises that qualify as micro-enterprises* (European Commission).

In the Veneto Region, according to Istat in 2019 (the Italian institute for statistical studies), 76,7% of firms are micro-enterprises, and 14,6% are small enterprises.

Moreover, the data reflects as well the repartition of firms with respect to the sector of activity: in Veneto Region (Istat, 2019) 34,4% of firms operates in the industrial sector (manufacturing activities 23,3%, constructions 10,5%, extraction of minerals 0.1%, water or electricity provider 0,5%), 65,6% operates in the service sector (with 43,5% in non-commercial services and 22,2% in wholesale and retail trade).

Considering the characteristics of the sample and the types of competences considered it is not surprising that the competences required for workers might involve a high importance for all the clusters in function-related skills, computer-related skills, and soft-skills. The function-related skills are related to the expertise of the company that is required for all the workers; soft-skills are essential for the companies working in the service industry – hence, in contact with customers, and since interpersonal relationships are important when working in very small firms. Computer-related skills are important since all the essential operations are run through a PC, while digital skills are relevant only for more specialized employees or firms in technological sectors.

3.2. Paper 2. *Don't let me down! Job and career crafting for sustainable employability*

In the lab there exist a mix of competences, knowledge and practical skills to be able to elaborate scientific theories and design experiments to test their validity, to engineer and build complex instrumentations that can respond to the need of the scientific quest, to create and build the components of such instruments from scratch. To carry out such complex endeavours,

various roles are present in the lab: first, scientists or researchers, who usually hold a PhD, are recognized members of the scientific community, publish papers and are dedicated to research for all their time at work. Second, there are some university professors (full professors, associate professors, or assistant professors), who have the same qualifications of researchers, but who have to split their activities at work between teaching and research activities. Hence, they can't be as dedicated to research as their colleagues are: this lack of time leads them to be able to get less important roles in the international collaborations. Consequently, they can feel alienated in their research activities, as they feel like small cogs in a big machinery; they try to find their satisfaction at work in their teaching activities much more. In the research teams there are also PhD students and postdoctoral researchers: their contract is short, typically 3 years for PhD students and 2 years for postdoctoral researchers. Hence, during their working experience in the lab, they are under pressure to perform well in a short time, although the projects are really long, and to find a good position to occupy right after their contract in the lab expires. Third, there are in the lab research engineers: they occupy important positions in the technical services – IT, electronics, and mechanics, and often hold a PhD (in physics or engineering). They have the competences to contribute to the scientific research and to put into practice the requirements for the instrumentations they are asked to create for the experimentations. While in general they feel proud about their technologically advanced work, at the frontiers of science, they also notice they aren't always treated properly by the researchers, who don't always acknowledge their value. In fact, although their contributions are noteworthy and essential for the experiment, they often aren't allowed to sign the scientific papers. The technology developed in the lab is really advanced, and has often positive spill-over effects in the industry. Fourth, there are technicians, which can be part of the IT, electronics, or mechanical services. They are in charge of realizing some parts for the complex instrumentation required by the experimentations. Their level of education is lower than the other roles in the lab, and their jobs are simpler. They usually feel proud of working in the lab than in the industry, although their job is not very different from what they would do in the industry. The production of the pieces made by the technicians can be in single pieces to be then outsourced, or they could just create the number of pieces needed. The job of technicians is actually valuable for the projects, requiring much precision and expertise.

We chose to conduct our research by interviewing a sample of 30 people working in the lab, with different roles, level of seniority, competences and skill. The first two contacts were

proposed by the technical director of the lab, and then the research continued thanks to the "snowball sampling": each interviewee proposed some references to contact for the study.

Various reasons convinced us to opt for conducting semi-structured interviews: first, the projects are long and often require people to quietly sit in their offices and write or solve mathematical equations, lines of codes, or designing some instrumentations. Although the tasks are complex, in order to perform them well, it's hard to explain what one is doing at the same time. Second, just observing the task is not easy to grasp what individuals are actually doing and how this is different from what they should to in their prescribed job. Third, individuals in their lab are proud of their job and their activities, and willing to explain in detail, so that it is understandable even for someone who is not an expert in the field. Fourth, we were interested in grasping the cognitive dimension in their job crafting process and in their career crafting strategies: hence, asking them to explain their thoughts are feelings about their job and grasping interesting aspects in their flow of thoughts seemed to us the most effective method. Fifth, we carried out our analysis following the Gioia methodology (Gioia and Chittipeddi, 1991; Gioia, 2013; Gioia et al., 2021): conducting semi-structured interviews seemed to be the most coherent way for us to let the interviewees express themselves freely, with a moderated guidance from our side.

The semi-structured interviews were preceded by a complete tour of the laboratory with the explanation of its functioning and characteristics by the technical director of the lab, who solicitated the study. In fact, he could notice some issues related to the obsolescence of competences after people were involved in some projects for more than ten years.

The semi-structured interviews were conducted between October 2020 and October 2021, on 30 people in the lab, working on different projects and with various roles, until "data saturation" (Fusch and Ness, 2015), was reached. For data saturation we consider that the answers to the questions dealt with the same themes again and again, without new insights being added (Glaser and Strauss, 1999; Guest et al., 2006). The data collected to reach data saturation should be think and rich (Dibley, 2011; Fusch and Ness 2015): they should have a good quality and reach a considerable quantity. We could interview 30 people in an organization of around 115 people, which we deemed a considerable amount. Moreover, the data seemed reaching a noteworthy depth (Burmeister and Aitken, 2012), since the interviews discussed many areas and allowed us to gain a deep understanding of people's careers, attitudes with respect to their jobs and their behaviours.

The questions in the interviews are quite large and structured on the basis of the Life Story Interview: it is interesting to underline that most of the people interviewed were at least around

40 years old, hence they could retrieve quite a long experience and evolution in their career, discuss about their path and choices they had to take. (Atkinson, 1998)

The interview grid included questions on the career path, including their studies and education, to understand the important milestones for them, on the satisfaction of their career, and the perceived career success, on the satisfaction and engagement in their job, the learning process, the role of the organization (including training and development, HR policies and management practices), the leeway and constraints in the definition of their work, the negotiations and relationship with their colleagues, the meaning at work, and the future plans for their career. The questions were large and left space for the interviewee to discuss various aspects.

The semi-structured interviews lasted between one hour and two and a half hours: according to the interviewee's answer, some questions to bounce back were asked to dig deeper into some interesting aspects.

The interviews were conducted in the language that was most comfortable for the interviewee: French, English, or Italian.

The data was collected and analysed according to the methodology elaborated by Denny Gioia (Gioia and Chittipedi, 1991; Gioia, 2013; Gioia, 2021). In fact, the ground assumptions considered for the setting of our study is, coherently with the Gioia methodology, that "the organizational world is socially constructed" (Gioia, 2013, p. 17). Moreover, and more specifically, we assume that people are "knowledgeable agents"– that is, "people in organizations know what they are trying to do and can explain their thoughts, intentions, and actions". Hence, we concentrated our efforts in giving voice to the interviewees in our research: we didn't use specific terminology in our questions and tried to be close to their terms and discourses, without imposing our specific theoretical frameworks.

Another assumption focused on ourselves as researchers: we supposed that we are well-informed and can understand the archetypes in what we observe and could express these hypotheses in theoretical terms (Gioia, 2013).

The semi-structured interviews were recorded and systematically transcribed, creating a total of around 680 pages of materials.

The analysis of data was carried out by individuating the first-order conditions and second-order conditions from our data. First-order conditions is an analysis of the interviewees' answers using their terminology and codes to grasp important concepts. These conditions are very numerous and vary from one interviewee to the other, with the goal or remaining close to the interviewee.

Second-order conditions, instead, group the first-order conditions into themes and dimensions that come from the researcher's universe and are more theory-centred (Gioia, 2013).

The second-order conditions were then aggregated into important themes, that allowed on the one had to specifically identify the job and career crafting behaviours and the main themes that emerged from the interviews.

3.3. Paper 3. *We're all in this together! Job crafting and prosocial behaviours among low skilled workers*

In our study, we focused on the warehouse workers of a medium-sized company located in the north-west zone of Paris, and operating in the retail-tech sector. As we mentioned, the study focuses on low-skilled workers and their strategies to cope with a routinary, monotonous job, by engaging in job crafting – with the goal of coping with difficulties related to the organization of work.

To study how low-skilled workers engage in job crafting we chose to engage in a participant observation and to carry out our study in a covert manner.

Our analysis focused on the warehouse workers, which included 15 people in different roles.

The workers were welcoming to the researcher and offered to help and explain her what their work consisted in. The employees in the warehouse were of different ages, varying from the early 20s to their 50s. The workers, however, were very close and said repeatedly and independently that they felt like in a family there. Their behaviour indicated that too: they mentioned they were going to play soccer together during the lunch break sometimes and they told me about their barbecues together at someone's place in the summer.

The organization of work in the warehouse is quite strict: employees have a set of tasks to perform in a certain order, and need to be very precise. Indeed, the goods must be quickly positioned at the correct place at the moment of the reception, and they have to be counted to be correctly logged in the IT system. Then, they should be picked up in the amount demanded by the shipment and, at that moment, logged out of the stock. Packaging has to be carefully done, to avoid that the goods are damaged or broken and the correct documents should be attached. The strict requirements needed by the logistics function put some constraints on the individuals: they have to work precisely and follow the instructions without margins for deviation.

Moreover, it was interesting to observe the improvements in the organization of work between the first and the second observation period: in July 2021, the company had recently adopted

the management software SAP and the workers had to start using some pads to scan the barcodes of the order and to follow the instructions of the software, which would indicate which goods to take, the positions of the goods, and the quantities required. Sometimes, especially during the first observation period, the pads didn't work well due to some connection problem: the workers who had to prepare the shipment would be nervous for that and they would just print the order and do their job, sometimes forgetting to precise in the software that the goods had actually been picked and thus the quantity in stock had changed. Additionally, they told me that when the software was implemented the system didn't work well and it was complicated to manage the stock and the shipment correctly.

In the second round of observation, I could notice that the system was smoother and the network was better in the plant. Moreover, the logistics manager explained me that he had been working on the improvement of the flow of the demand: by smoothing the demand and improving the organization of the warehouse disposition, the intensity of the work was smoother in different periods. Hence, the more intense periods were less stressful than the previous years and the more relaxed periods weren't really moments in which employees didn't know what to do, as it could happen before.

As previously mentioned, as suggested by the HR Business Partner for the warehouse, it would be better if I carried out my research in a semi-covert manner (Roulet et al., 2017): the management was aware of the research and of part of the objectives (I omitted some of the aspects related to the theoretical interest for simplicity reasons). I explained the workers that I was doing an internship in the company to since I was writing my master's thesis on the jobs in the logistics sector for a master degree with a specialization in logistics: I was there to learn about the jobs in logistics. Hence, I misrepresented the situation for them: they were aware that I was collecting some data and doing some research, but I told them I would focus strictly on the job rather than their behaviours at work.

The fact that I was there to learn about their work made them willing to explain and open to share about the work and their way of working.

I worked with several workers to explore the variety of roles and experience all the activities that could be done. I didn't participate in the reparation activity because it is quite a technical activity and I couldn't really understand what they were doing. Moreover, this activity is not really for low-skilled workers, but for technicians who do have an expertise in what they are doing. For the same reason, I just had a quick talk with the workers in the quality check department: they explained me their job and I could observe their workstation.

In both the observation periods, I spent most of my time working with the workers in charge of the shipment preparation for big or small shipments, with the workers (two different employees in the two periods, since the first one got a promotion meanwhile) in the planning and shipment for the small shipment, with the workers in charge of the reception of the goods, the storage and the organization of the warehouse, and had some conversations with the logistics manager. Overall, I spent more of the time working in the preparation of the shipment, both for the big and small: this is the function in the warehouse that occupies the most people, so I could work with many of them and notice the differences. In general, I worked some hours in the morning with someone and changed workstation in the afternoon. The second observation period was easier to start, engaging in small talk with the workers while doing my job. In fact, I already knew what to do and could observe them more easily or ask them more questions.

Engaging in a participant observation seemed the most suitable methodology for various reasons: I started the research with the goal of understanding to whether and to what extent low-skilled workers coped with hard working conditions through job crafting, but I was open to a variety of interpretations. Indeed, the prosocial behaviours that emerged from the observations, turned out to be unexpected. I was looking for a "grounded theory" (Glaser and Strauss, 1999) and to let it emerge, I aimed at observe the situation. The goal was to immerse myself in a situation, with in mind the idea expressed by Bernard (2006, p. 344): "…immersing myself in a culture and learning to remove yourself every day from that immersion so that you can intellectualize what you have seen and heard, put it into perspective, and write about it convincingly".

Another interesting aspect that drove me to engage in a participant observation is that to my knowledge there are no other studies in which the researcher has used a participant observation to study job crafting among low-skilled workers: this represents an interesting point of view to evaluate work per se.

Moreover, I was interested to observe how people behaved at work, which is a situational, complex situation. Rather than a description or a narration, observing it directly would give me a better understanding (Musante and DeWalt, 2010). Additionally, participating in the work myself could offer me deeper insights that allowed me to better understand the workers: I was tired and even bored by the repetitive tasks. Having the possibility to work with the employees gave me the opportunity to put myself in the same situation as the workers and gain more trust and a better disposition with them (Musante and DeWalt, 2010). The positioning of a student

(Musante and DeWalt, 2010) gathering data for the master degree turned out to be a good approach for me, since it could give me the freedom to be curious, ask questions: the questions could be justified from the fact that I was there for learn and wanted to do it well.

During the participant observation, I could take some notes but had to rely heavily on my memory, since I was supposed to work and didn't have much time to do that. I recorded my interactions during the days, keeping the phone in the pocket of my jeans, but this didn't turn out to be really useful. In fact, the phone rubbed against the pockets of my jeans and in the recordings there is a lot of rustling and background noise that prevents speech from being heard well.

I could take notes in my phone and transcribed them in a notebook once the day at work was finished or during breaks. I used my trip back home in the train to think about the day at work and about the situations I encountered, writing some notes. My notes are quite brief, often made of a couple of keywords, that help me remember the situation. I also noticed my emotions, especially that I was tired or bored for a repetitive work.

The data have been interpreted according to the theoretical frameworks interested into: I focused on the aspects related to job crafting, wellbeing, task crafting, relationships with colleagues, collaboration activities, help and support within the team, type of interactions with colleagues, relationships with management, discourses about the perceptions of work, stress and burnout, productivity and increases in productivity, long-term planning, quality of work, comparison with others professional experiences, prosocial behaviours, innovation, approach and avoidance crafting, …

As mentioned, I carried out my research in a semi-covert manner (Roulet et al., 2017). Although covert research is considered by some scholars and institutions as unethical (Spiker, 2011; Roulet et al., 2017), there exist many works in which ethical research was considered as essential for the study to bring interesting results and not to waste the researcher's efforts in the research. In fact, the main argument in favour of covert research is that it can be necessary to avoid affecting the research environment. Indeed, covert research doesn't mean unethical research (Spiker, 2011).

I actually didn't deceive workers (Spiker, 2011): I explained them that I was interested in their work but without explaining them all the details and I didn't mention that I aimed at observing their behaviours. In fact, clarifying this to them would have changed their behaviours.

With respect to my behaviours, some could argue that I didn't explicitly ask the workers for their consent. However, I didn't invade their personal sphere and only observed their work, which happens in the public setting of the firm. I absolutely did no harm to them, because I

only took notes about their work and way of working, hiding their identity. The only possible consequences would have been if the management was hostile to their behaviours, but this is not the case: the management knows about their ways of working and are fine with it. Moreover, it was the management who suggested this type of research.

Hence, I wouldn't say that mine was a properly covert research, but I did lie to them with respect to the goal of my internship there (Calvey, 2017). In accordance with Roulet and colleagues (2017), "all forms of observation relay on some degree of deception due to the practical realities of observations" (p. 4). Roulet and colleagues (2017) argue that covert research is useful since it helps people not to behave unnaturally.

Indeed, I kept my research covert with the objective to make people feel more at ease and have them behave naturally, opening up about how they did their job. If they knew that I was observing their behaviour at work, that would have made them feel less confident, judged, and would have led them to behave in an unnatural way. The HR manager suggested to remain vague and not reveal the purpose of the research, claiming that workers are not at comfortable when discussing what they do at work and don't like talking about themselves nor being interviewed.

Actually, my research was conducted in a semi-covert manner (Roulet, 2017): the management, in fact knew about the research, although the theme was presented to them quite vaguely for reasons of simplicity.

Part 2. Three Essays on Sustainable Employability Development through Job Crafting

Paper 1. The Shape of Hybrid Jobs

In this chapter, we present the first research paper of the dissertation. It was co-authored with Prof. Martina Gianecchini and Prof. Paolo Gubitta from the University of Padova, Italy.

The paper was presented at *WOA – ASSIOA (Workshop di Organizzazione Aziendale)*, in January 2020, the Italian conference of Organization Management, held at University Statale of Milano, where it was awarded with the *Best Paper* prize. It was also presented at the *19th International Conference in Commemoration of Professor Marco Biagi – "Beyond Employment. Protecting Autonomous Work"* in March 2021, at University of Modena and Reggio Emilia, and Marco Biagi Foundation.

The paper has then been published as a chapter in "*Employability and Industrial Mutation. Between Individual Trajectories and Organizational Strategic Planning*" (Wiley, 2022), edited by Prof. Florent Noël and Prof. Géraldine Schmidt.

This paper focuses on understanding which types of competencies and their combinations enable individuals to flourish in an environment that is constantly changing. In other words, we seek to grasp how the various types of skills contribute to the employability of individuals. Indeed, upskilling and reskilling are pressing issues for employees: in an ever-changing workplace, they run the risk of having their skills become rapidly obsolete, and they must update them to remain employable. In addition, technical skills alone will no longer be sufficient: the employable individual must possess in addition soft skills and digital skills.

It is therefore essential for individuals to ensure that their skills are updated and that they can continue to learn new ones.

Hence, the first step in our research is to focus on which skills and competencies, and which combinations thereof, can enhance one's employability. Indeed, for employability to be sustainable, it needs first of all to be created and maintained in the everyday working life. We are thus focusing on how individuals can thrive in the present moment while looking forward to the future of their career. In our paper, as we explain more in detail in the following paragraphs, we explore such topics.

In our research, we examine how the competencies demanded by the labour market are evolving as a result of the hybridization of jobs, as well as the implications for both employees and employers regarding job design. Gubitta (2018) defines hybrid jobs as those that, as a result

of the digital transformation, incorporate a greater proportion of digital skills into their requirements. In fact, as digital technologies become more widespread in the workplace, they alter how tasks are performed. Such digital abilities are becoming increasingly important for employees to flourish in their jobs and advance in their careers.

In this framework, an intriguing conceptualization is that of the T-shaped professional (Guest, 1991): a sort of new "Renaissance man" with multiple skill sets. Particularly, the T-shape professional possesses in-depth knowledge of a single, typically technical, field, which corresponds to the vertical stroke of the T. He also possesses lower-level skill sets, such as soft or management skills, represented by the horizontal stroke of the letter T. Initially, the concept of T-shaped professionals was conceived by observing R&D professionals, who combine in-depth knowledge of one discipline with an understanding of how it interacts with others (Iansiti, 1993; Demirkan and Spohrer, 2015). Then, it was determined that these individuals were innovation catalysts, able to flourish in a variety of contexts, adapt rapidly to job changes, and collaborate in diverse teams (Gardner, 2017; Leonard-Barton, 1995).

Different forms emerge in the job market as a consequence of the digital revolution and the need to collaborate more and more in heterogeneous teams, further blending competencies. For example, the literature (Demirkan and Spohrer, 2018) identifies I-shaped professionals, who are deep specialists in one area; H-shaped, who are deep specialists in two areas; Pi-shaped, who are deep specialists in two areas with the capacity to combine them; and dash-shaped, who are broad generalists.

We examine this concept from the perspective of job design (Morgenson and Campion, 2003), focusing on the knowledge characteristics of the job (Morgenson and Humphrey, 2006)—that is, the type of knowledge, skills, and abilities required of a worker in a certain job position. In particular, we associate skill specialisation (the extent to which a job involves performing specialised tasks or possessing specialised knowledge or skills) with the vertical stroke of the T, a deep knowledge of a particular area. In addition, we associate skill variety (the extent to which a job requires using a variety of skills to complete a task) with the horizontal stroke of the T, characterised by longer learning processes, higher motivation, and employability.

The primary objective of our research is to determine whether or not distinct job profiles exist with respect to the number and type of skills for which a higher level of skill specialisation is required. First, as suggested by the literature on work design (e.g., Campion and McClelland, 1983; O'Brien, 1983; Hackman and Oldham, 1976), the greater the variety of skills required to perform a job, the greater the likelihood that such a job is motivating for the worker, thereby increasing her job satisfaction and employability. Second, as the literature on T-shaped jobs

and professionals reminds us, the more areas of expertise a worker can acquire, the easier it will be for her to understand the needs and issues of the other functions, and she will be able to solve more complex problems involving not only a single domain but also the intersection of two or more domains. Therefore, when obtained skills are more diverse, this process of merging is enhanced and expanded (Barile et al., 2012). Due to the transformations the world of work is undergoing, many authors acknowledge the relevance and prominence of informatics and digital skills. Since a growing body of literature is studying their development and attempting to develop a more organised theoretical framework for their analysis (Murawski and Bick, 2016), it is interesting to determine the extent to which such competences are required in terms of breadth of knowledge and mastery by the act of hiring. Fourth, the changing and growing instability in the world of work, which has resulted in more and more uncertain career paths (Forrier and Sels, 2003), has highlighted the significance - in order to increase an individual's employability and, consequently, her likelihood to maintain or find another job in an equivalent or better position (Rothwell and Arnold, 2007) - of developing diverse skill sets, along with the adoption of proactive behaviour and the investment in the individual's personality.

A second purpose of our analysis is to determine whether there are individual and organisational characteristics that make it more likely for an individual to occupy a job requiring a certain variety and specialisation of skills; in other words, we aim to identify the variables that influence the likelihood that an individual will be required to acquire a higher level of specialisation and to use a wider range of skills.

To answer our questions, we collected quantitative data via CATI (computer-assisted telephone interview) from 238 employees in the Veneto Region (Italy), representing a sample of 2,864 workers who signed a contract in November 2017 and were still employed in October 2018. Soft skills, functional-related skills, computer-related skills, and digital skills have been identified as four areas of skill specialisation. To ascertain the skill shape of the task, the vertical stem of the T (specialisation, expertise) was represented by skill level and skill usage frequency. Instead, the horizontal stem was represented by the number of areas requiring a high level of skill specialisation.

The analysis included a cluster analysis and a multinomial logistic regression, both of which were conducted using the SPSS software.

First, the results of the cluster analysis identified four clusters: 1) a low-specialised Pi-shape, with a deeper, but still not so elevated competence in computer-related and soft-skills; 2) a high-specialised Pi-shape, with a deeper specialisation in soft- and functional-related skills; 3) a H-shape, with higher expertise in computer-related and soft-skills; 4) a Dash-shape, with a higher level of specialisation required in all four areas, especially in the digital-skills.

Second, the results of the multinomial logistic regression show that the low-specialised Pi-shape (1) corresponds in general to individuals with a low level of education, working mainly in small companies in the manufacturing sector. High-specialised Pi-shaped individuals (2) work in general in the operations functions of logistics and distribution companies, while H-shaped individuals (3) are more likely to be female workers employed in staff functions such as HR and administration. Finally, dash-shaped individuals (4) are mainly male workers with a higher level of education, working mainly in the marketing and sales departments of service businesses.

Thanks to our findings, we can confirm that various skill shapes coexist in the labour market, depending mainly on the education level of the employee, the functional area, and the industry. In addition, it became evident that the hybridization of jobs, i.e. the incorporation of digital skills into the requirements of many occupations, was crucial. Digital and computer-related skills are required at the highest level of specialisation for dash-shaped and H-shaped positions, respectively (along with other skills).

Frequent Pi-shaped positions with low levels of specialisation raise concerns about their vulnerability to automation. Due to the fact that these positions exist in small businesses, which may lack the financial resources to invest in such automation, this risk does not appear to be particularly high at the moment. In addition, the high degree of soft skills required prompted us to consider the significance of the human dimension, particularly in small businesses.

The practical implications of our study concern training and development: the management must prioritise filling the disparity between job requirements and employee competencies through ad hoc training and development programmes.

The Shape of Hybrid Jobs

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Introduction

The fast pace of the technological evolution forces workers to update their competencies in order to remain attractive in the labour market: in this instance, the World Economic Forum (2018) identified upskilling and re-skilling as two of the main challenges for reducing the risk of job loss. Interestingly, proficiency in new technologies is only one part of the future skills requirement, as other "human" skills (e.g. analytical thinking, active learning, creativity) are growing in prominence.

Those changes suggest that in order to remain employable workers need to add new skills (either soft or digital) to their "traditional" competencies. Indeed, as recently suggested by research reports (Deloitte, 2019; WEF, 2018), new hybrid jobs (Gubitta, 2018) or superjobs stem from "traditional" jobs because of the blending of several types of competences: soft skills, professional competences, and digital competences. The professional trajectory leading to these new jobs resembles the characteristics of the *T-shaped professionals*. The term was initially adopted to describe the evolution of the professionals in the R&D field (IfM and IBM, 2008). It was then extended to define professionals who have the ability to work in an interdisciplinary agile fashion as they combine deep expertise in one professional area with a breadth of skills (e.g. communication, problem solving, project management) enabling faster adaptation to role changes and better collaboration in multifunctional contexts (Gardner, 2017). T-shaped professionals do not represent the entire panorama of professional "shapes" (Barile, Franco, Nota and Saviano, 2012), as we can have experts in just one area (I-shaped),

professionals who have deep knowledge in two connected areas (H-shaped); professionals who are experts in two areas and possesses a superficial knowledge of other areas (Pi-shaped). Drawing on the literature on work design (Morgeson and Campion, 2003; Morgeson ad Humphrey, 2006), we can assert that the new jobs require both higher skill variety, i.e. the ability to use different skills to perform the job, and higher skill specialization, i.e. the depth of knowledge in a particular area.

We argue that the professional evolution suggested by the studies about the T-shaped professionals, that is possible to describe using the concepts provided by the literature about job design, is particularly suitable to interpret the changes of jobs that are caused by the technological revolution. However, the extent of these changes and what are the characteristics of the skill shapes of jobs remains unexplored. Analysing the data of a survey administered to a sample of 238 workers employed in Veneto Region, we aim at exploring the skill shapes of jobs that are present in the labour market and at assessing their relationship with the workers' and organizational characteristics.

The contribution of our study is twofold. First, we contribute to the studies about T-shaped professional that have analysed few professions and industries, focusing their attention on the development of the jobs but neglecting the diffusion of different professional shapes. Second, we contribute to the research about the effect of the technological changes on the jobs, that have mainly adopted a descriptive approach overlooking the adoption theoretical concepts (e.g. the ones provided by the literature about work design) in order to illustrate what are the job characteristics that are affected by those changes.

Finally, our study provides useful insights to employers and policy makers to design effective training programs and to employees in order to manage their professional development.

Theoretical framework

The T-shaped professionals

In the new competitive environment, workers and professionals need to cope with tasks and jobs that are continuously changing. And, as teamworking is spreading in flat and agile organizations, they are required to collaborate in multifunctional groups (Piciocchi, Bassano, Pietronudo and Spohrer, 2019).

The need for workers to leave a logic of specialism favouring instead the development of interfunctional competencies was first suggested by David Guest (1991) in an editorial on

The Independent, where he coined the term "T-shaped" person. The T-shaped person is, according to the author, "a variation on Renaissance Man, equally comfortable with information systems, modern management techniques and the 12-tone scale".

Few years later the term was adopted by Iansiti (1993) for describing the combination of skills needed by professionals operating in Research & Development teams, as "on the one hand, they have a deep knowledge of a discipline […], represented by the vertical stroke of the T. On the other hand, these […] specialists also know how their discipline interacts with others – the T's horizontal top stroke" (p. 139). Leonard-Barton (1995) explored the roles of T-shaped professionals as drivers of innovation in companies. According to the author, those professionals are especially valuable anywhere problem-solving is required across different deep functional knowledge bases. On the same tone, Barile, Saviano and Simone (2015) emphasize the fact that such individuals have the ability to deal with different problematic contexts effectively addressing change: in fact, they have both "disciplinary knowledge in at least one area, and understanding of systems" that allow them to be "adaptive innovators" (p. 1179). Donofrio, Spohrer and Zadeh (2010) remind that the breadth of knowledge of T-shaped people makes them fast in adapting to job changes, able to communicate and to collaborate in heterogeneous teams, hence being capable of "interacting with and understanding specialists from a wide range of disciplines and functional areas" (IfM and IBM, 2008, p. 11). Gardner (2017) argue that the peculiarity of the T-shaped individual consists in the ability to cross the boundaries of a single discipline, being able to collaborate, understanding roles, motives and responsibilities from different areas.

As suggested by Demirkan and Spohrer (2018), the digital transformation paves the way for the development of other "shapes" of professions, identified by the broadness and depth of their expertise: H-shaped, Pi-shaped, Dash-shaped. H-shaped professionals, instead, have deep knowledge in two areas, and are able to connect them; the Pi-shaped professional is an expert in two areas, but she possesses a broad – though more superficial – knowledge other areas as well. Finally, the Dash-shaped professional is a proper generalist: she possesses general knowledge in several areas, with a good breadth and she's able to apply knowledge in different situations.

Notwithstanding the value of workers having multiple domains of knowledge, their professional development is not usually planned by companies, as incentives are usually directed to the development of I-shaped individuals who are experts in just one area (Leonard-Barton, 1995). And then, T-shaped competences emerged from the willingness of some individuals to pursue another possible career. On the contrary, as suggested by Hansen and

Von Oetinger (2001), the attitude to combine knowledge from different areas should be encouraged by organizations, as T-shaped professionals can create value both by achieving strong results in their business unit and by sharing knowledge across different units.

Technological change and work design

A framework which is helpful in investigating the professional shapes of jobs and in the evolution of job contents, it is the stream of literature related to the work design. Studies about job design are situated at "the intersection of industrial and organizational psychology" (Morgeson and Campion, 2003, p. 423), has important impacts both on organizational success and individual well-being, since it focuses on the requirements of jobs in terms of outcomes, efficiency and effectiveness, but at the same time it takes into account motivational theories aimed at the satisfaction of workers - or, in other words, it looks for the best possible allocation of limited resources (time, skills, investments in human capital) to maximize the outcome of a job. Due to the increasing attention to the "hybrid" nature of jobs (Gubitta, 2018), as well as the different shapes jobs are assuming (Demirkan and Spoherer, 2018; Barile, Franco, Nota and Saviano, 2012), such kind of reflections are of particular interest: jobs are changing, and so should their design.

According to Morgeson and Humphrey (2006), the works characteristics - that is, the "attributes of the task, job and social and organizational environment" (p. 1322) can be classified in three main categories: motivational, social and contextual. The motivational characteristics, argue the authors, are a reflection of the complexity of the job and of its enrichment, and therefore could lead to a higher satisfaction coming from its accomplishment. Motivational characteristics are then subdivided by Morgeson and Humphrey (2006) in two groups: the first is constituted by "Task characteristics", which are "concerned with how the work itself is accomplished and the range and nature of tasks associated with a particular job" (p. 1323) and include autonomy, task variety, task significance, task identity, feedback from the job. Then, there are Knowledge characteristics, which "reflect the kind of knowledge, skill and ability demand" (Morgeson and Humphrey, 2006, p. 1323) that are required to a worker occupying a determined job position. Knowledge characteristics are composed of job complexity, information processing, problem solving, skills variety and specialization. All of these items are positively related to an increase in the motivation and satisfaction of the worker, since a higher degree of commitment is required to successfully complete harder tasks (Steers et al., 2004).

In particular, Morgeson and Humphrey (2006) define skill specialization as "the extent

to which a job involves performing specialized tasks or possessing specialized knowledge or skills": it "reflects a depth of knowledge and skill in a particular area" (p. 1323). On the other hand, skill variety "reflects the extent to which a job requires an individual to use a variety of different skills to complete the work" (p. 1323). An important distinction is the one between skill variety and task variety: while skills refer to the competences a person possesses (which can be used or not in carrying out the job), the variety of tasks is referred to the breadth of activities a job includes (Morgeson and Humphrey, 2006). As it emerges, such a point of view is helpful in the design of T-shaped jobs, as the two characteristics of skill specialization and skill variety mirror the vertical stroke and the horizontal top stroke respectively.

However, the historical view of the theories of job design dates back to Taylor's division of labour and it was contrasting with the main concept of mixing competences suggested by the theories emerging from the insights about T-shaped professionals.

According to this view, the division of labour in simple tasks favours mastering the job thanks to their repetition over time: this would guarantee the maximum of efficiency and specialization (Staats and Gino, 2012). In addition, the costs related to variety, which requires to invest time and energy in the acquisition of different skills to accomplish various tasks, were lowered. Finally, as suggested by Rosen (1983), since the required investment in the acquisition of any set of skills by a worker constituted a fixed cost, in order to maximize the rate of return it was "advantageous" to "specialize investment resources to a narrow band of skills and employ them as intensely as possible" (Rosen, 1983, p. 44). Campion (1989) defines this approach to job design as "mechanistic", recalling the "classic industrial engineering" origins (p. 4) - in contrast with other approaches, such as the motivational, the biological and the perceptual/motor ones. The author highlights that the focus on repetition of simple tasks allowed a high specialization, efficiency, staffing ease and low training times. At the same time, such an approach is linked to "lower mental ability requirements" (p. 17).

On the other hand, Staats and Gino (2012) underline that such an approach turned out not to be as effective as desired: the continuous repetition of a task leads workers to be disengaged, to lack motivation and therefore to perform worse than expected. In fact, as reminded by Herzberg (1968) and Hackman and Oldham (1976), allocating a variety of activities in a job content would be a better option, due to the higher "motivation and engagement" (Staat and Gino, 2012, p. 1141) experienced by the worker, which could improve her performance as well as gaining knowledge that could "be applied to other tasks", thus favouring learning and "the opportunity for knowledge transfer between tasks" (Staat and Gino, 2012, p. 1143).

O'Brien (1983), moreover, highlights that the satisfaction in jobs is related to five attributes - skill-variety, task identity, task significance, autonomy and feedback (p. 461) and underlines the importance of adding to these elements the skill-utilization, defined as "the degree of match or congruence between an individual's skills and the level of skills required by his or her job" (O'Brien, 1983, p. 462) - such concept is similar to the one of skill variety, which is, according to Hackman and Oldham (1976, p. 395) "the degree to which a job requires a variety of different activities in carrying out the work, which involve the use of a number of skills and talents of the person". However, argues O'Brien, "even if the skills are meaningful to the employee, the level of skills required by the job may not be similar to the level of skills possessed by the employee": the problem many jobs face is that emphasis is put on increasing the variety of skill used, but it is the utilization of skills that turns out to be a better predictor of jobs satisfaction. Hence, according to O'Brien (1983), to better motivate people, it is necessary to find a better match between the skills to be utilized to carry out the job and those of the worker.

In support to the motivational approach to job design (Campion, 1989), which is oriented to "outcomes such as satisfaction, intrinsic motivation, and involvement, as well as performance and attendance" (Campion, 1989, p. 4), Campion and McClelland (1993) argue that not only task enlargement is effective, but that an even more effective way to reach a higher satisfaction for the worker is the knowledge enlargement of the job. In fact, job enlargement consists in expanding the variety of tasks required to the worker, but it can be done either by adding tasks on the same level of responsibility, or by increasing the requirements for activities which need an "understanding of procedures and rules relating to different products sold by the organization" (Campion and McClelland, 1989, p. 1): hence, knowledge enlargement is seen as more enriching, due to the fact that enhancing "mental processes may […] be more psychologically meaningful" (p. 2) and it is "likely to have a greater influence on mental ability requirements […] and compensable factors […] than is task enlargement" (p. 2), thus linking it to the positive effects of motivation. Also, positive effects of knowledge enlargement are linked to the enrichment of the professional identity of the worker and on the compensation (Campion and McClelland, 1989).

Hence, the literature on job design and the debate around the trade-offs between specialization and variety, together with the new shapes of jobs, seem to suggest that the requirements for any kind of job are switching to higher requirements for flexibility, a wider range of competence managed at a deeper level, a higher proactivity and willingness to learn in order to enrich the areas of competence mastered. The importance of proactivity, of adopting

an attitude directed to the lifelong learning and the continual gaining of new capabilities is strongly sustained also by authors focusing on the theme of employability, defined by Hillage and Pollard (1998), as "having the capability to gain initial employment, maintain employment and obtain new employment if required" (Hillage and Pollard, 1998, p. 1). The employability of the individuals is related to various factors: the assets in terms of "knowledge, skills or attitude" she possesses, together with their ways of using them and their ability to present them to potential employers. However, the individual's employability is also strongly dependent on the context she works in (Hillage and Pollard, 1998). Therefore, developing more skills and expertise in various areas is an investment that can guarantee individuals with a higher amount of employability - which is more and more necessary to face the uncertainty and unpredictability of the world of work (Forrier and Sels, 2003; De Grip et al., 2004).

The recent literature about the evolution of jobs and the requirements of skills and competences of workers, brings evidence that different ad new areas of expertise are demanded to employees, also as a consequence of the technological innovations. In fact, not only technical and soft competences are demanded to employees, but digital competences and IT skills are increasingly needed in the workplace (Deloitte, 2019; WEF, 2018; Accenture, 2016).

The importance of the digital competences as a relevant area of expertise is underlined by Murawski and Bick (2016), who highlight the attention and relevance given by employers and institutions to the development of such skills to cope well with the tasks required by the jobs. According to Vieru (2015), digital competences are defined as "the ability to adopt and use new or existing information technology to analyse, select and critically evaluate digital information in order to investigate and solve work-related problems and develop a collaborative knowledge body while engaging in organizational practices in a particular organizational context" (p. 6718). This type of competence includes a technological dimension, a cognitive dimension, a dimension related to the organizational culture; and the integration among the three dimensions is relevant as well. Such considerations are coherent with the evidences brought by a report by the OECD (2009), emphasizing that many of the '21stcentury skills' are being developed in a cross-curricular way, thus fostering the contamination across different areas of knowledge; and by Deloitte (2019) as well, who underlines that the evolution of jobs is integrating more and more digital competences in their content. For example, 'superjobs' (Deloitte, 2019), require a blending of several types of competences to be carried out effectively: soft skills, professional competences – that is, the area of expertise which is related to the function of the job, and digital competences – those implying the usage of new

technology.

According to Di Maglio and colleagues, jobs require an enlarged portfolio of competences, due to the fact that "complexity imposes a return to capacity (breadth) to deal with decisional contexts in which the skills possessed (depth) are inadequate" (Di Maglio et al., 2019, p. 425). The authors underline the fact that people – and therefore jobs – do not require simply general competences, but instead "generalizable" ones (Di Maglio et al., 2019, p. 425): that is, "a general level of knowledge that can be usefully applied to in different contexts to face the variety and variability of phenomena, that also allows learning to be deep in multiple areas more rapidly than before". Therefore, job contents are requiring the integration of competences from various domains: workers need to adapt to such trends and constantly update their abilities.

Therefore, as it emerges, various types of competences are blending in the new, emergent types of jobs: soft skills, functional-relates (professional) skills, computer-related skills, digital skills. The first aim of our research is to get insights about whether different job profiles exist that assume different shapes with respect to the number and the type of skills for whom a higher level of skill specialization is required.   The reason why such an analysis turns out to be relevant is fourfold: first, as suggested by the literature on work design (e.g. Campion and McClelland, 1983; O'Brien, 1983; Hackman and Oldham, 1976) the higher the skills variety required to perform a job, the more likely it is that such job is motivating for the worker, thus increasing her satisfaction and employability. Second, as the stream of literature on the T-shape jobs and professionals reminds, the greater the amount of areas of expertise a worker can gain, the more easily she could understand the needs and issues of the other functions, she could solve more complex problems, related not only to a specific domain, but situated at the intersection of two or more of them. Consequently, when the skills acquired are more varied, this process of blending is increased and enriched further (Barile et al., 2012). Third, due to the transformations the world of work is facing, many authors acknowledge the relevance and the prominent importance of the informatic and digital skills: since a growing body of literature is studying their development and is trying to provide a more organized theoretical framework for their analysis (Murawski and Bick, 2016), it is interesting to understand to which extent such competences are required in terms of depth of knowledge and mastery by the actual jobs and which the main trends are for the future. Fourth, the changing and growing instability in the world of work - that has led to more and more uncertain career paths (Forrier and Sels, 2003), has underlined the importance - in order to enhance the individual's employability and therefore her probability to maintain or find another job in an

equivalent or better position (Rothwell and Arnold, 2007) - to develop different sets of skills, together with the adoption of proactive behaviour and the investment in the personal and professional development.

A second purpose of our analysis is directed at understanding whether some characteristics - both at the individual and at the organizational level - exist that make it more likely for an individual to occupy a job that requires a certain variety and specialization of skills: in other words, we aim at identifying which can be the variables influencing the probability that an individual could be required to gain a higher specialization and to utilize a higher variety of skills in her job.

Research methods

Research setting and sample

In order to explore the shapes of the jobs that are developing in the labour market and to assess their relationship with the workers' characteristics, we administered a survey (October 2018) to a sample of 300 workers employed in Veneto Region. The survey is part of the Osservatorio Professioni Digitali activities, a joint research project between Veneto Region and the University of Padova. The sample was extracted from a larger population of 2,864 workers, who signed an employment contract in November 2017 and that were still employed after eleven months (data were provided by VenetoLavoro). The survey was administered using a Computer-assisted telephone interviewing technique. For the purpose of this paper, after controlling for missing values and outliers, 62 respondents were excluded from the original sample.

The analysed sample is therefore composed of 238 workers (Table 1): the average age is 37.8 years (with a labour market seniority of 15.5 years), 51.7% are female, 47.5% have a high school diploma and 38.1% a bachelor degree or above. The majority of the respondents (59.2%) are employed with a temporary contract, in small companies (49.2% less than 50 employees), operating in different industries (39.1% manufacturing, 29.8% commerce, 31.1% services).

Table 1 – Characteristics of the sample

Individual characteristics	N	%	Company characteristics	N	%
Gender	238		Industry	235	
Male		48.3	Manufacturing		39.1
Female		51.7	Commerce		29.8
			Business and personal services		31.1
Age	238		Size	237	
≤ 30 years old		26.1	<10 employees		24.1
31-40 years old		35.2	10-49 employees		25.7
41-50 years old		26.2	50-249 employees		16.9
>50 years old		12.5	250-999 employees		12.6
			≥ 1000 employees		20.7
Education	232				
Elementary or middle school		12.1			
High school		48.7			
Bachelor's degree		15.9			
Master's degree or PhD		24.3			
Contractual arrangement	238				
Permanent contract		40.8			
Temp contract or self-employed		59.2			
Organizational functions	238				
Operations		38.2			
Marketing and sales		31.5			
Staff		30.3			

Variables

In order to explore the professional shapes of the jobs we asked the respondents to provide information about the skills required to perform their job. We identified four areas of skill specialization:

- soft skills, such as helping and influencing others, leadership, problem solving;
- functional-related skills, that are a different set according to the functional area in which the worker is employed. For instance, the functional-related skills for workers employed in the area Accounting and Finance (one the staff functions) include: analysing financial data, check financial statements, prepare forecasts, evaluating the financial feasibility of business investments;
- computer-related skills, such as using a spreadsheet or an online communication tool;
- digital skills, such as big data analysis, cloud computing, robotics, artificial intelligence).

Each one of the four area of skill specialization represents one possible vertical stem of the professional shape. The level of skill specialization for each area was measured multiplying the skill level (from 1=basic to 5=expert) and the frequency of utilization of the skill (from 0=never to 4=always) required to perform the job. As suggested by the mechanistic approach to job design (Campion, 1989), which is derived from classic industrial engineering and reflects recommendations from scientific management, skill specialization is increased by having the workers repeatedly executing the task. Specialization benefits individual workers' learning, and hence productivity, because work on the same task over time imparts knowledge related to

the task that is likely to improve a worker's ability. Together with the knowledge of the core skills, the workers may get familiar with topics as the specific set of steps to follow, the specialized tools used, and the customer being served (Staats and Gino, 2012). The horizontal stem of the professional shape (breadth) is represented by the number of areas that requires a higher level of skills specialization.

As predictors of different skill shapes of jobs, we considered a set of workers' and organizational characteristics. The workers' characteristics included in the analysis are: age, education level (considered as a continuous variable ranging from 1 = elementary or middle school to 6 = PhD), gender (1 = woman; 0 = man) and employment contract (1 = permanent; 0 = temporary contract or self-employed). The organizational characteristics included in the analysis are: company size (number of employees), industry (1 = manufacturing; 2 = distribution and sales; 3 = business and personal services); the functional area where the worker is employed (1 = Operations; 2 = Marketing and sales; 3 = Staff activities).

Data analysis

To map the professional shapes of the jobs and to analyse their relationships with workers' and organizational characteristics, we applied a two-step analytical strategy that involves cluster analysis and multinomial logistic regression.

Cluster analysis is an exploratory data analysis technique aimed at identifying and organizing the observed data into relatively homogeneous and meaningful groups on the basis of proximity, namely, specific similar characteristics. We apply cluster analysis to the four areas of skill specialization. Among the different existing clustering procedures, the one that fits best both the data gathered and the aim of this research is the agglomerative hierarchical procedure because it is suitable when the number of clusters is not known a priori (Kaufman & Rousseeuw, 2009). The agglomerative hierarchical procedure begins from the single observations, considered clusters themselves and moves toward larger groups by merging the clusters two-by-two on the basis of a measure of similarity or distance between the clusters. More specifically, we used Ward's method, which uses the Euclidean distance to obtain the distance from the cluster's mean. After clustering the skill areas, we used post-hoc analyses (the Bonferroni method) to test the differences between the means of the single variables in different clusters.

The second step of the analysis involved identifying workers' and organizational characteristics related with the likelihood that a person work in a job with a professional shape

identified by the cluster analysis. We applied a multinomial logistic regression, a technique that is usually considered an extension of a binary model, as we predict a nominal dependent variable that contains four categories with no natural order, given one or more independent variables (Hosmer, Lemeshow, & Sturdivant, 2013). In our case, the clusters are the dependent variable, whereas the workers' and organizational characteristics are the independent variables.

Findings

The results of the cluster analysis suggest the existence of four clusters of jobs, representing four professional shapes (see Figure 1 and Table 2).

Both Cluster 1 and Cluster 4 resemble the characteristics of a P-shaped job, but with different levels of specialization: in the first case, the only skills with a higher specialization are the soft skills, while function-related and computer-related are lower and the digital ones are almost absent; in the case of Cluster 4, instead, two areas of skill specialization emerge in functional-related and soft skills, but a broad – though more superficial – knowledge is present in the two other areas as well.

Cluster 2 represents an example of Dash-shaped as all the four areas of expertise are requested and adopted on the job. Cluster 3 resembles the characteristics of a H-shaped job as two skills (computer-related and soft) are particularly developed. Finally, Cluster 4 can be associated with a Pi-shaped job, as it has two areas of skill specialization (functional-related and soft skills), but it possesses a broad – though more superficial – knowledge the other two areas as well.

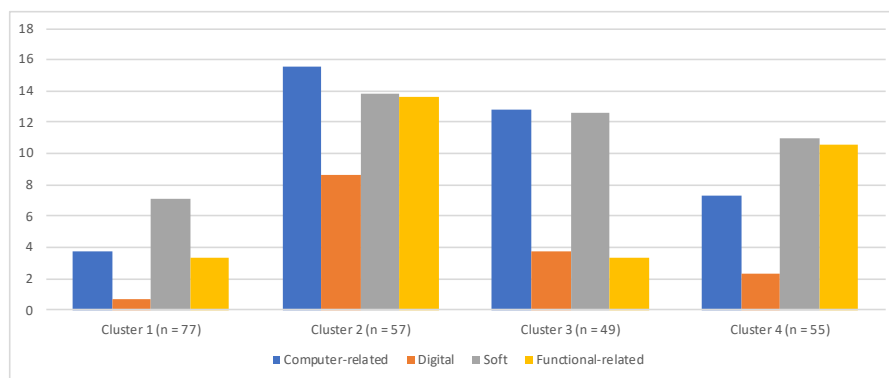Figure 1 – The skill shapes of the jobs (N = 238)

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Table 2 – Results of the cluster analysis (N = 238)

	Cluster 1 (n = 77)		Cluster 2 (n = 57)		Cluster 3 (n = 49)		Cluster 4 (n = 55)		ANOVA	Cluster significantly different at 0.05 level*
	Mean	St. Dev.	Mean	St. Dev.	Mean	St. Dev.	Mean	St. Dev.		
Computer-related	3,76	4,29	15,56	3,52	12,80	3,36	7,28	3,58	F=127,058	[1,2] [1,3] [1,4] [2,3] [3,4]
Digital	0,75	1,39	8,59	4,57	3,73	2,93	2,34	2,48	F=80,842	[1,2] [1,3] [1,4] [2,3]
Soft	7,15	3,46	13,86	3,00	12,56	2,12	10,94	2,76	F=65,480	[1,2] [1,3] [1,4] [3,4]
Functional-related	3,39	2,40	13,65	4,73	3,31	2,90	10,55	2,77	F=150,183	[1,2] [1,4] [2,3] [3,4]

*Square brackets include (two by two) clusters significantly different at 0.05 level.

The results of the multinomial logistic regression (Table 3) suggest that both individual characteristics (namely gender and education level) and organizational characteristics (namely the size and the industry of the company and the function where the person is employed) are significantly related with the professional shape of the job.

In particular, the Low specialized P-shaped jobs (that are the more traditional ones in terms of professional development) are more likely to be occupied by workers with a relatively lower level of education (20.8% of the individuals belonging to this cluster has only an elementary or middle school diploma) employed in smaller companies operating in the manufacturing industry. The Dash-shaped jobs (Cluster 2) are more likely to be hold by higher educated male workers, operating in the marketing and sales functions of service companies. The H-shaped jobs (Cluster 3) are more likely to be occupied by female workers operating in staff functions, such as Human Resources or accounting. Finally, individuals occupying a job that is represented as High-specialized P-shaped (Cluster 4), are more likely to be occupied in the logistic departments of distribution companies. According to our analysis, neither the age of the person nor the type of employment contract (permanent or temporary) play a role in predicting the shape of the job the person will occupy.

Table 3 – Parameter estimates: reference group Cluster 2 (Dash-shaped) (N = 238)

		b (SE)	Odds Ratio
Cluster 1 I-shaped	Age	0.013 (0.025)	1.013
	Education level	-0.576 (0.217)**	0.562
	Gender	-0.958 (0.454)*	0.384
	Employment contract	0.161 (0.445)	1.174
	Company size	0.000 (0.000)*	1.000
	Organizational function [Operations]	1.445 (0.676)*	4.242
	Organizational function [Marketing and Sales]	-1.441 (0.605)*	0.237
	Industry [Manufacturing]	1.356 (0.628)*	3.88
	Industry [Distribution and Sales]	2.099 (0.669)**	8.16
Cluster 3 H-shaped	Age	0.049 (0.028)	1.05
	Education level	-0.087 (0.203)	0.917
	Gender	-1.637 (0.476)**	0.195
	Employment contract	0.007 (0.473)	1.007
	Company size	0.000 (0.000)	1.000
	Organizational function [Operations]	1.323 (0.671)*	3.754
	Organizational function [Marketing and Sales]	-2 (0.616)**	0.135
	Industry [Manufacturing]	-0.381 (0.601)	0.683
	Industry [Distribution and Sales]	0.641 (0.668)	1.899
Cluster 4 P-shaped	Age	0.002 (0.025)	1.002
	Education level	-0.153 (0.186)	0.859
	Gender	-0.898 (0.434)*	0.408
	Employment contract	0.021 (0.433)	1.022
	Company size	0.000 (0.000)	1.000
	Organizational function [Operations]	1.705 (0.69)*	5.499
	Organizational function [Marketing and Sales]	-0.038 (0.562)	0.962
	Industry [Manufacturing]	0.718 (0.585)	2.051
	Industry [Distribution and Sales]	1.498 (0.584)**	4.474

Overall Model Evaluation - Likelihood Ratio Test, χ^2=104.714, p<0.000

Goodness of fit – Pearson, χ^2=649.935, p=0.471; Deviance, χ^2=518.665, p=1.000

Pseudo-R^2 statistics - Cox and Snell = 0.367; Nagelkerke = 0.392

Notes: Standard errors are in parentheses; *p<.05, **p<.01. Reference groups for the dichotomous and categorical independent variables: Gender, 1 = Woman; Employment contract, 1 = Permanent; Organizational function, 3 = Staff; Industry, 3 = Business and personal services. The odds ratios for continuous variables represent the change in odds of belonging to the respective groups given a change of one unit in the model variable. Odds ratios for dichotomous and categorical variables represent the change in odds of belonging to the respective groups given a change in the model variable from 0 to 1.

Discussions and conclusions

The present research aimed at understanding how new jobs are developing, in terms of skill

variety and skill specialization. Our findings contribute to the studies on T-shaped professional showing the diffusion of different skill shapes in a sample of workers recently employed in an Italian region. Differently from the traditional settings of the studies about T-shaped professionals, those workers are not operating in innovative companies but they are employed in traditional activities and functions Drawing on the literature on work design and on the T-shaped professionals, we found that different shapes coexist in the labour market: P-shaped (with either a high or low level of specialization), Dash-shaped and H-shaped.

Also, it is interesting to notice that there is not a clear prevalence of one shape, but that they are quite evenly distributed: 32% of workers belong to Cluster 1 (Low-specialized P-shape), 24% to Cluster 2 (Dash-shape), 21% to Cluster 3 (H-shape) and 23% to Cluster 4 (High-specialized P-shape). Therefore, the likelihood that a worker is employed in a job with a specific skill shape is related to his/her personal and professional characteristics, more than to labour market peculiarities.

Focusing on the Low-specialized P-shaped jobs, from our findings it emerges that this is the most frequent shape in the newly activated labour contracts (24%), even though the prominence is not so remarkable. It is important to highlight that such occupations are often taken by less educated workers operating in smaller firms in manufacturing industry. Due to these characteristics, those workers appear to have the highest likelihood of being substituted by machines, as the predictable physical tasks are highly susceptible to rapid automation (McKinsey, 2016). However, further elements should be taken into account: in fact, these workers consider the soft skills as the most important ones in their job, with respect to other kinds of competences, indicating that the relational aspect is the most important component of their work - either objective or only perceived. This can be due to the fact that they are aware of the low specialization required in technical and computer-related tasks, but that they feel relevant in the workplace and give importance to the relational component of their job. Such a claim is coherent with the fact that these workers are mainly employed in small firms, where the human component of the job is more likely to be emphasized, also due to the fact that many of these firms are family-owned, especially in the Veneto Region. Moreover, these firms may not have the possibility to invest in new technologies that are able to substitute workers due to the low capitalization and the small amounts available for technological investments. Hence, both the centrality of the person at work and the financial obstacle are two elements concurring against the automation of jobs.

Together with those jobs, our findings demonstrate that other skill shapes are emerging. In

particular, jobs requiring a relationship with customers in service businesses are the ones requiring the higher level of skill specialization in all the areas of expertise analysed (Dash-shaped). These jobs require the higher application of both computer-related and digital skills, confirming that the digital transformation has strong repercussions on marketing and sales jobs (McKinsey, 2016) even though such effects are twofold: whereas some aspect of the relationship with the customer can be completely automatized (e.g. payment and reservation systems, systems creating customized product offers), still the establishment of a personal contact with the clients, requiring the possess of functional-related and soft skills, can increase the economic value of the "commercial" relationship. Moreover, due to the fact that the functions of marketing and sales are among the first to resent in an important way from the impact of the technological revolution and are seeing their shape evolving into a dash shape, it is possible to expect that other functions will follow a similar path towards the model of the "superjobs" (Deloitte, 2018), which necessitate a high degree of specialization in all the types of competence, with relevant requirements in the digital skills as well. However, such an important evolution in different functions - in which the human component is less essential (e.g. the logistics functions, that from our study turns out to be more related to a High-specialized P-shape) - poses interesting questions as for the role of soft skills in more and more automatized tasks and requires to take into consideration the possibility of the automation.

Together with the Dash-shaped jobs, other skill shapes are present in the labour market. Both the H-shaped and the Pi-shaped jobs are characterized by skill variety and in both cases the computer-related skills are required with a high level of specialization, confirming that the predicted hybridization of the jobs (Gubitta, 2018) is already happening for many employed individuals: as already mentioned, the further step the technological revolution is likely to imply is the increased importance of digital skills in these jobs as well and questions arise with respect to the evolution and the possible automation of tasks.

Finally, our findings are useful to employers and policy makers to design effective training programs and to employees to manage their professional development. In fact, due to the continuous evolution of jobs, an attitude towards a constant upskilling and reskilling is necessary: on the one hand, it is a way for people to secure their job and their employability, and on the other hand, it is essential for companies both to increase the retention rate of highly skilled workers and to increase the competitiveness of their workforce (Noe et al., 2014; Van Der Heijden et al., 2016).

It is necessary, however, to provide each worker with a suitable kind of education, adapted to the shape of the job and to the objectives each job has. For instance, in the case of dash-shaped jobs with a high level of depth, individuals can gain knowledge through formal education (such as high schools, university degrees, continuing education programs) and through dedicated company training programs: this is aimed at guaranteeing the workers with the necessary solidity and strong foundations in the knowledge of disciplines they will be required to use with a high degree of specialization. Instead, the case of High-specialized Pi-shaped jobs shows a progressive hybridization, requiring the ability to use, with a medium level of expertise, both computer-related and traditional (either soft or functional-related) skills. In these cases, a formal learning process might not be necessary, whereas relevant skills can be acquired on-the-job and/or through short training courses. In fact, the learning process which is more suitable in this case is the one of repetition and practice of tasks, due to the fact that the required expertise is not so deep. Moreover, the way in which processes are organized is specific to each firm: therefore, learning on the workplace allows the employee to gain expertise directly in the context where such competences will then need to be applied. Also, the development of soft skills is fostered by learning in groups and through the interaction with colleagues. In planning for learning activities, the two dimensions of frequency of usage and depth of knowledge required have to be taken into consideration: for example, even for tasks that are rarely used but can be demanded with a high degree of knowledge, it is essential to include some kind of repetition activities, in order to gain solidity and easily master such skills.

Another element emerging from the analysis and deserving attention is the unequal gender distribution in the different shapes: the jobs requiring a high degree of specialization in all the types of skills are mostly occupied by men with a higher degree of education, while the H-shaped jobs, mostly focusing on soft and technical skills, are predominantly occupied by women: this could be an indicator of the importance to encourage women and girls in the education on digital and computer-related skills in order to fill the gender gap.

Our study is only the first step towards a deeper understanding of how the transformation of the world of work is influencing the shape of jobs: further research is necessary in this respect. First, it is interesting to include in the analysis the other dimensions characterizing the job: time and space, to gain a more complete vision of how jobs are changing. For instance, an interesting question emerges as for what importance to attribute to soft skills in jobs that are executed by remote workers. Furthermore, even more interesting can be the

inclusion of the time dimension in a longitudinal sense: it is important to understand whether and how the shapes of jobs have been modifying in the recent periods, to gain insights on the pace of evolution and on its directions.

Paper 2. *Don't let me down!* Job and Career crafting for Sustainable Employability

In our previous chapter, we discussed the importance of possessing the right combination of various types of skills that contribute to the creation and maintenance of an individual's employability.

Here, we present our second paper, in which we deepen our focus on the sustainable employability framework: we explore how sustainable employability can be created, both in the short term and long term, thanks to different crafting strategies: job crafting and career crafting.

This paper has been co-authored with Professor Florent Noël, from IAE de Paris – Sorbonne Business School. It has been accepted for presentation in a French version at the AGRH 2023 conference, to be held in October 2023, and is under review for the journal *@GRH*.

A previous version of the paper has been presented in 2022 at WOA – ASSIOA (Workshop di Organizzazione Aziendale) in Brescia, at the Italian conference of Organization Management.

In the paper, we explore the process of development of sustainable employability. In particular, we focus on both the personal and organisational factors that allow individuals to achieve a valuable contribution through their work, finding meaning and satisfaction in their career. In addition, we investigate the tactics individuals can use to find motivation every day and maintain their attractiveness and employability by constantly learning.

We consider the evolution of careers from a linear, predictable path to a collection of experiences in various organisations, and we point out two important issues related to the research on employability, namely, employability seen not only as a means to keep a job but to avoid being side-lined, and the process of construction of employability in the daily worklife. While HRM practises to develop employability are well identified, the strategies individuals adopt to develop their employability besides managerial arrangements are less known. Yet, employees can adjust their tasks, relationships, and give meaning to their activities by exploiting the room for manoeuvre granted by the organisation or taken by individuals. Indeed, job- and career crafting activities that allow individuals to adapt their job to their characteristics seem to be fruitful ways for individuals to develop their sustainable employability.

In our paper, therefore, we combine the concepts of sustainable employability with those of job and career crafting with the goal of shedding light on the strategies individuals pursue to achieve sustainable employability.

Particularly, job crafting appears useful for gaining a deeper understanding of how individuals can shape their jobs in order to maintain favourable working conditions – the short-term requirements of sustainable employability. Additionally, it is possible to comprehend the individual techniques for enhancing immediate performance.

Once the short-term aspects of employability are ensured, it seems appropriate to focus on career crafting to describe how individuals develop their long-term resources for attractive professional opportunities. We examine these strategies in an effort to determine whether and to what extent job crafting and career crafting can be utilised by individuals to maintain and cultivate their sustainable employability.

Consequently, our research query is as follows: how can individuals shape their work in the present while planning for their career's future to prevent being left behind?

Our research was conducted in a very peculiar organisation: a physics research laboratory in Paris, France. The research was actually requested by the technical director of the lab, who was concerned about the organization's ability to maintain an outstanding scientific level and the team members' ability to maintain and develop existing and new competencies while remaining attentive to future projects.

Several characteristics of the laboratory make it an ideal case study for examining the growth of sustainable internal employability.

Staff members, including researchers, engineers, and technicians, are highly specialised in innovative disciplines. This hyper-specialization produces a great deal of pride and satisfaction.

Long-term projects are conducted by the organisation (e.g., the construction of a telescope or a particle accelerator): for this, individuals must upgrade their skills to adapt to the changing requirements of the various phases of the project or find a position in other projects if they wish to pivot around their area of expertise. In addition, the organisation lacks formal constraints: external transitions are uncommon, hierarchical authority is weak, and work processes are not highly formalised. The organisational culture encourages "scientific freedom," which translates to "everyone does what they believe to be proper for the initiatives and for themselves." The only limitation stems from social constraints: to maintain one's position in self-regulating work groups, one must be competent and agreeable. Employability is a core concern for this organisation, and "shaping one's work and career" is the rule: it is clear how job and career crafting foster sustainable employability.

After a preliminary exploratory phase, we gathered qualitative data by interviewing 30 individuals with various lab responsibilities. The interview content was then transcribed, and data was analysed using Di Gioia and colleagues' method.

Our analysis reveals that the organisation has numerous concerns regarding employability and career management. In fact, one of the primary worries for researchers, engineers, and technicians who work on decades-long projects relates to their ability to continue making significant contributions through their work. In actuality, focusing for an extended period of time on a single project carries the risk of obsolescence of competencies, which must be continually updated in order to continue making valuable contributions.

Linked to this is the issue of career advancements: since external mobility is very low, employees must maintain sufficient motivation and perform well in order to secure a position on the most ambitious initiatives and advance their careers.

The "scientific freedom" in the laboratory motivates the employees to pursue ambitious scientific initiatives; they believe they are advancing human knowledge. However, researchers, academics, engineers, and technicians have varying degrees of latitude, with restrictions becoming more stringent at each stage. They are free to influence their career trajectories in diverse ways.

Job and career crafting are prevalent: the former helps individuals develop the short-term dimensions of sustainable employability, whereas the latter focuses more on the long-term.

Particularly, job crafting is a way for individuals to preserve their health by, for instance, regulating their activities to avoid tension and exhaustion. Also, job crafting helps individuals give meaning to their work: thanks to cognitive crafting, they are able to reframe their thoughts on their job and remain motivated over the long term and for basic tasks.

On the other hand, career crafting assists individuals in remaining visible and establishing and sustaining a solid reputation in the network. Reputation is indeed essential for engaging in the most exciting initiatives and demonstrating one's abilities. Moreover, when constructing a career, individuals strive to acquire as much knowledge as possible: by acquiring new skills and knowledge, they ensure that their reputation is maintained and enhanced, and that they can continue to contribute to research activities.

In conclusion, this paper demonstrates that sustainable employability is a process that can be developed over time, thereby bridging the gap between the literature on careers and the literature on employability.

Literature on employability focuses on the hazards to the quality of working life: employability is frequently associated with unemployment, exclusion, and relegation. Recent contributions

on unstable and nomadic careers insist on the individual's responsibility to develop their employability. However, the concept of career does not contain a reactive dimension (Fugate et al., 2021; Forrier et al., 2018; Hall et al., 2018). Sustainable employability focuses on the capacity to make valuable contributions through one's work. It appears to be linked to career success, connecting these literature streams: since it is the obligation of individuals to manage their careers, they must work on their employability (Akkermans and Tims, 2017). Indeed, by combining employability with proactive behaviours and career competencies, one can attain job and long-term career satisfaction (Tims and Akkermans, 2020). Certainly, a public research centre in physics is a special case, but it shares some characteristics with organisations structured in adhocracy, around long-term initiatives, in which the activities of the organisation are shaped by people's knowledge, competences, and aspirations. Individuals develop the organisation and increase its strategic capacity through personal and professional growth (Van der Klink, et al. 2016). In these situations, employability is a concern not only for the individual, but also for the organisation, which must be able to capitalise on the growth of its employees to ensure its success.

In this context, job crafting is particularly essential and can be encouraged by the organisation itself: it represents a strategy for the organization's success and is also beneficial to the individual.

Furthermore, we emphasise the significance of career planning for the individual's long-term success. In our paper, we emphasise that two distinct time horizons can be distinguished: the short-term and the long-term. When designing daily activities, one must consider the long-term consequences.

Thus, allowing individuals the freedom to modify their jobs to their needs leads to job crafting, as well as career crafting with long-term objectives, aiming for career success. The concepts of sustainable employability can therefore connect the two time frames.

However, in our paper we also emphasise the phenomenon's collective dimension: to obtain approval of their current and prospective attractiveness on the internal or external labour market, employees value the development of social connections with their coworkers. Moreover, job crafting takes on a variety of forms and serves a variety of purposes based on the role and degree of freedom in the organisation: as constraints increase, employees' manoeuvrability decreases, requiring them to coordinate their activities with others. This influences their long-term career, as some individuals may have fewer options than others.

Lastly, we emphasise that developing one's employability requires investing in oneself in the hopes of gaining better opportunities for career advancement. In this sense, employability represents a resource that must be cultivated.

Don't let me down! Job and career crafting for sustainable employability

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Introduction

Careers are not what they used to be! The linear and predictable pathways typical of organizational careers in times of economic stability have given way to more external, unstable, and short-term rooted trajectories (Hall et al., 2018). Remaining attractive in the labor market, being proactive, and developing one's skills have become constant concerns for employees. They need to ensure an income, maintain control on their professional trajectory, achieve satisfaction over the long term (Akkermans and Tims, 2017; De Vos et al., 2019; Grant, 2008). In this respect, the literature on career success meets that on sustainable employability (Van Der Klink et al., 2016).

The literature abounds on the features of employable individuals: they are endowed with transferable skills and proactive attitudes, prone to exploration and change (Van Der Hejide and Van Der Hejiden, 2006). Much has been written about the support systems, the impact of training, and the removal of barriers to mobility (Van Harten et al., 2021; Fugate et al, 2021; Forrier et al., 2018). However, this literature recognizes two limitations. First, discussions on employability refer to the transitions from unemployment to employment or from one job to another. This is observed from the standpoint of workers managing their career to reach objective or subjective career success (Benson et al., 2020). Yet, employability is an issue concerning the most protected employees too, even when dismissal isn't an option. Even in the case of "internal" careers, it is important for employees to know how to mobilize their networks, develop skills and find their place in organizations undergoing restructuring. The issue is not to secure a job or an income, but to avoid being gradually "sidelined" (Pavageau et al., 2007; Rothwell and Arnold, 2007). The issue is particularly important for those workers who, even without disruptive career changes, can try to grow their status within a professional community to achieve a higher acknowledgement, both in a symbolic and economic way. They thus show their competences to be part of those networks of people that allow to create or improve one's reputation (Dubois, 2016). On this point, employees' and employers' interests

converge. Indeed, from an employer's perspective, it's inefficient to keep at work someone who is unproductive therefore unemployable. In the internal labor market, employability is a matter of remaining capable to make a valuable contribution, adapting to changes in the organization and maintaining motivation (Noel and Schmidt, 2022).

Secondly, only recently literature has taken an interest in the process of constructing employability and career skills, focusing on the work activities, rather than on the professional transitions (Akkermans and Tims, 2017; De Vos et al., 2020). It is probably between two movements, in the work itself more than in the transitions that the dynamics leading to the development of employment can be built. Indeed, professional identities and capabilities for personal development are constructed and established at work and in professional interactions. Work itself and work environment can be decisive for empowerment – developing skills, encouraging, and providing the opportunities to develop employability (Van Der Klink et al., 2016; Fleuren et al., 2016; Le Blanc et al., 2017).

While HRM practices to develop employability are well identified, the strategies individuals adopt to develop their employability besides managerial arrangements are less known. Yet, employees can adjust their tasks, relationships, give meaning to their activities by exploiting the room for maneuver granted by the organization or taken by individuals. They can also cultivate their ability to move within the organization, to develop, learn, be useful… Job crafting, a set of proactive behaviors individuals engage in to shape their job, (Wrzesniewski and Dutton, 2001; Tims and Bakker, 2010; Berg et al.,2013), has mainly been studied as an approach to improve well-being, satisfaction, person-job fit: it allows people to tailor their job to make it suit better to themselves (Tims and Bakker, 2010; Tims et al., 2012; Petrou et al., 2012). However, it also offers avenues to observe individual strategies to develop employability. Related to this, is career crafting, a set of proactive behaviors that combine career competencies with job crafting to achieve long-term career success in a sustainable way (Akkermans and Tims, 2017; De Vos and Akkermans, 2019).

The aim of this paper is twofold. First, we examine the construction of employability in the work context and how individuals craft their jobs to progress in their career and continue developing their skills according to the needs of the organization. Secondly, we focus on how these processes can be implemented in a context favoring job security: here, employees need to foresee the competencies that will be necessary in their job by being proactive in the organization.

To do this, we study a public organization in France, with high job security and rare professional transitions: employees autonomously develop and maintain excellent levels of

competence. This organization is a research laboratory in fundamental physics, whose projects take several decades to complete. There, the problem is about how individuals can maintain their scientific competences at the top while being integrated in teams on the most interesting projects.

We observe workers turning to job and career crafting to develop sustainable employability within the scientific communities, with mixed results. In fact, the perception of agency in the management of their career is extremely high: employees are aware they need to be proactive in developing career competencies, to adapt, to keep learning for their career success.

Job Crafting, career crafting, and sustainable employability – a literature review

Employability is imperative. It's an imperative for workers, who need to find or keep a job. But for employers too: laying off into the labor market non-employable individuals isn't an optimal solution. Also, for the performance of an organization, maintaining in the workforce employees who are not productive is even worse. Employability has been defined in diverse ways through time (Gazier, 2021): a common understanding defines employability as "an individual's chance of a job in the internal and/or external labor market" (Forrier and Sels, 2003, p. 106). Considering this, the risk exists of deeming employability just as an individual characteristic and responsibility (Van Harten et al., 2021, Fugate et al., 2021). As De Grip and colleagues (2004) suggest, remaining attractive can depend on individual willingness or choice. Coherently, the most critical literature considers employability the marker of a liberal conception of employment calling for an individualization of the employment relationship, disempowering employees regarding job security (Rousseau, 2004; Cullinane and Dundon, 2006). The emphasis on the agentic dimension of employability can lead to polarization effects (Forrier et al., 2018): those who are already employable further strengthen their employability, deepening existing skills or acquiring new ones (Gianecchini et al., 2022). Conversely, those struggling to maintain it risk facing worsening employment conditions reducing the possibility of access to better jobs.

Second, workers need to be employed and get an income, but just having a job is not enough: Van Der Heijde and Van Der Heijden (2006, p. 453) refer to the importance of the "optimal use of competencies" – exploiting one's competences to make sense of their job and feel realized. Similarly, Van Harten et al. (2021, p. 1) recall that employability "concerns the individual's potential in the labor market": being employable implies being fully productive. It's debatable whether a person who has a job but doesn't contribute to the organization's

objectives can be considered employable. In fact, employees who work just because they can't be dismissed, aren't considered employable: employability means something more than just avoiding unemployment. The literature has established positive relationships of employability with career success (Akkermans and Tims, 2017), well-being (De Cuyper et al., 2011), re-employment (Koen et al., 2013). The issue of this basic conceptualization of employability is especially relevant in organizations offering job security and focusing on an internal labor market (Rothwell and Arnold, 2007). In such cases, internal employability is the only justification for the paradoxical situation in which someone is defined "employable" just because they have a formal employment contract, being unemployable elsewhere.

Another drawback would be to consider employability only an individual characteristic, whereas it's a matter of context too (De Grip et al., 2004; Fugate et al., 2021): employability is determined by the intersection between individual features, the state of the labor market, and institutional arrangements matching supply and demand. If being employable means having the possibility of obtaining a job, it implies being visible, contributing to a team, developing transferable skills. Therefore, the responsibility for the development of employability is shared between employers and employees (Houkes et al., 2020; Clarke, 2008).

Sustainable employability and employee empowerment

The concept of sustainable employability encapsulates these dimensions. Van der Klink and colleagues (2016, p. 74) borrow Amartya Sen's theoretical framework of capabilities (Sen, 2008; Alkire, 2005) to conceptualize sustainable employability. It's achieved when "throughout their working lives, workers can achieve tangible opportunities in the form of a set of capabilities": they are in the right conditions "to make a valuable contribution through their work now and in the future, while safeguarding their health and welfare." (Van Der Klink et al., 2016, p.74).

Sustainable employability gives employees the possibility to obtain a valuable job, realizing their potential: it combines individual proactivity and organizational initiatives to deploy individuals' personal resources, putting them in the conditions to provide valuable contributions through their work (Van Der Klink et al., 2016; Fleuren et al., 2016). Four dimensions stand out: (1) the importance of *meaningful and rewarding work* in (2) *healthy conditions* promoting well-being, (3) *productivity* (including work engagement, motivation, and positive attitude), and (4) *long-term perspective*, maintaining employability throughout employees' careers (Hazelzet et al., 2019).

Sustainable employability is built in a continuous process, articulating short- and long-term constraints (Fleuren et al., 2020). Planning for the long term implies maintaining oneself in good conditions to work: focusing on one's health, ability to work, recovering from efforts allows to achieve long-term results. Similarly, it's essential to maintain job satisfaction and motivation: being able to find meaning at work is a priority (Fleuren et al., 2016; 2020).

In the long term, sustainable employability implies maintaining and developing skills coherently with both the tasks to be performed and the evolving needs of organizations, in a lifelong learning approach. Moreover, it's essential to be visible, active in the network of colleagues, demonstrating the capacity to make critical decisions. Being part of the good networks is important in the contexts in which there's a high uncertainty regarding employees' performance. For instance, it's the case of non-observable individual performances, or when evaluation criteria are hard to define. In such cases, the network alone can convey information about the individuals in it (Karpik, 2007; Granovetter, 1973; Dubois, 2010). Thus, sustainable employability enables employees to attain subjective career success (Benson et al., 2020).

Leveraging on job crafting for sustainable employability

One aspect lacking clarity around the development of sustainable employability lies in its building process, in individuals' daily choices: the concept of job crafting allows to explore this dimension.

Job crafting refers to a set of proactive behaviors, actions individuals take to modify their work in a bottom-up way. Employees can exploit their autonomy and room for maneuver, adjusting their job to make it suit better to themselves (Wrzesniewski and Dutton, 2001; Berg et al., 2013; Tims, et al., 2012). It allows employees to cope with the standardized organization of work: universal answers may not match individuals' expectations. By tolerating or encouraging such freedom, organizations rely on individuals to create the work environment that fits them better (Dubbelt et al., 2019; Demerouti, 2014). As argued by Wrzesniewski and Dutton (2001, p. 179), "even in the most constrained and routine jobs, employees can exert a certain influence on the nature of their work". Wrzesniewski and Dutton (2001) distinguish three forms of *job crafting*: *task crafting* – that is, modifications on the work content, adding or deleting tasks according to one's preferences, or to the level of enlargement or enrichment of the work sought by the individual (Slemp, 2016). Second, r*elational crafting* involves varying the nature and scope of prescribed relationships, strengthening the enjoyable or useful ones and avoiding the most straining ones. Third, *cognitive crafting* entails modifying the way one thinks about and perceives the job, attributing meaning and importance, altering how they approach it rather

than acting on its content (Wrzesniewski & Dutton, 2001; Wrzesniewski et al., 2013; Slemp, 2016).

The literature has associated job crafting to the issues of well-being at work: Bakker and Demerouti (2017) include job crafting in their Job Demand-Resource model, which classifies job characteristics in job demands and job resources. The former are elements requiring efforts from the workers, while the latter foster growth, development, and are purposeful for the accomplishment of the work goals (Demerouti, 2014). Employees craft their jobs acting on job demands and resources: increasing structural resources, increasing social resources, increasing challenging demands, decreasing hindering demands. This triggers two processes: a motivational one, when resources are increased, leading to work engagement, and a health-impairment one, leading to disengagement (Tims and Bakker, 2010; Tims et al., 2012, Bakker and Demerouti, 2017).

A synthesis between these two approaches is proposed by Bruning and Campion (2018): job crafting concerns the modifications made to one's work activities and perceptions, including modifications to the job and perceptions (*role crafting*), and actions to develop and maintain resources (*resource crafting*). By modifying tasks, relationships, or meaning attributed to work, individuals adjust demands and resources to align their activities with their preferences and to cope with high levels of stress (Bruning and Campion, 2018; Slemp, 2016). The literature underlines the positive effects of job crafting: it improves the experience at work, giving meaning to one's activity and avoiding alienation (Demerouti, 2014). Moreover, it facilitates people in building a positive professional identity, and creating deeper social ties (Hu et al., 2020; Berg et al., 2013), while increasing well-being, motivation, work engagement, personal development, and performance.

Not only does job crafting allow individuals to choose the most effective ways of working, but it also gives them the possibility to create the desired situations to learn, maintain and develop their skills or professional relationships. Thus, job crafting helps fostering individuals' sustainable employability in a long-term perspective (Akkermans and Tims, 2017).

Thinking long-term: career crafting for career success

Job crafting can combine satisfaction with the present job and future sustainable employability. However, thinking about individuals' working life through time, the focus moves to the career trajectory: in the long term, the importance of the sustainability of careers emerges (De Vos et al., 2020). Sustainable careers consist in a sequence of career experiences in various social contexts, where individual agency helps individuals finding meaning in their job (Van der

Heijden and De Vos, 2015). For careers to be sustainable, they need employability, adaptability, and career competencies (De Vos et al., 2019). These can be reflective, communicative, behavioral, and represent the abilities, knowledge, skills necessary for career development (Akkermans et al., 2013). Combining job crafting with career competencies, individuals engage in career crafting (Akkermans and Tims, 2017), defined as "an individual's proactive behavior to optimize career outcomes through improving person-career fit" (De Vos and Akkermans, 2019, p. 130). Career crafting implies being mindful about aspirations and motivations: each choice impacts the short-term (as for employability, performance, work engagement), and long-term (objective and subjective career success). Career crafting becomes essential to ensure long-term career success. According to De Vos and Akkermans (2019), career crafting involves adaptability, the exploitation of one's career competencies, and the adoption of proactive behaviors. With those, the person-career fit improves, leading to subjective career success over time (Benson et al., 2020).

Engaging in job crafting and career crafting to develop sustainable employability

The employability literature emphasizes the need to understand the environment and adapt to the context to remain attractive. Combining the concepts of job crafting and career crafting, it's possible to shed light on individual strategies to achieve sustainable employability. More specifically, job crafting seems to be fruitful to better understand how individuals can shape their jobs to remain in good conditions to work – the short-term requirements of sustainable employability. Also, it's possible to understand the individual strategies to increase immediate performance.

Once the short-term dimensions of employability are guaranteed, career crafting seems suitable to explain how individuals develop their long-term resources for valuable professional opportunities. We highlight these strategies, seeking to understand whether and to what extent can job crafting and career crafting be means for individuals to maintain and nurture their sustainable employability. Thus, our research question is as follows: *how can individuals shape their work in the present moment, while planning the future of their career to avoid being left aside?*

Methodology

In our study, we consider the processes in the work context and focus on the work activity. We adopt a qualitative approach based on the analysis of the career paths of individuals who all

belong to the same organization. This approach allows us to better understand the context in which people evolve in their career, the work, and activities, and to look at the nature of the relationships with each other. This makes it possible to better identify their room for maneuver, understanding whether and how job and career crafting take place.

The organization studied is very peculiar: a French public research laboratory in nuclear and high-energy physics. Our access to this field comes from a request by the technical director of the lab, concerned about the ability of the organization to preserve an excellent scientific level, and about the capability of the team-members to maintain existent and develop new competences, remaining attentive for future projects. Interesting characteristics were present to reflect on internal sustainable employability. In fact, the staff working there – researchers, engineers, and technicians, are highly specialized in innovative fields: this hyper-specialization generates a great deal of satisfaction and pride. The organization runs long-term projects (e.g., construction of a telescope or a particle accelerator): for this, individuals need to upgrade their skills to adapt to the changing requirements of the different phases of the project, or to find a position in other projects if they wish to pivot around their specialization. Also, the organization lacks formal constraints: external transitions are rare, hierarchy is not very authoritative, and work processes are not much formalized. The organizational culture promotes "scientific freedom" which translates into "everyone does what they think is right, for the projects and themselves". The only limitation comes from social constraints: one must remain competent and nice to keep their place in self-regulating working groups. Employability is a fundamental issue for this organization, and "shaping one's work and career" is the rule: it's possible to observe how job and career crafting foster sustainable employability.

The data collection took place in two phases. A first exploratory phase, based on a visit of the facilities and interviews with the laboratory management (director, technical director, project managers), helped us to better understand the issues of the organization of work and the strategic interest for the organization to reflect on the employability of individuals. Secondly, we interviewed 30 team members representing the different professions, until "data saturation" was reached (Fusch and Ness; 2015). Each interview lasted around one to two hours and took place between September 2020 and October 2021, either by videoconference or face-to-face, depending on the restrictions in force due to the Co-Vid-19 pandemic. Table 2 reports the information about the interviewees.

The questions respected the principle of a "life story" (Bertaux, 2016): first, interviewees were asked to describe the scholastic, academic, and professional paths. Then, questions focused on the feeling of job satisfaction, flexibility, and constraints in terms of the choice of tasks to be

accomplished, the relationships established and maintained, and the meaning given to work. Finally, other questions were related to career prospects, employability perception and any risks they may incur. The interviews were conducted in French, English or Italian, according to the interviewees' preference. They were systematically transcribed, resulting in 580 pages of qualitative material. Data was coded according to the method of Di Gioia and colleagues (2013), bringing out first-order concepts that were grouped into more general themes related to theoretical concepts. We highlight the dimensions referring to the different forms of job crafting (task, relational, cognitive) and to short-term and long-term dimensions of sustainable employability (health, meaning, skills, visibility).

Results

The results first highlight the contextual elements and then the individual approaches enabling individuals to develop their sustainable employability, by observing job and career crafting.

Employability issues

Keeping making valuable contributions

The organization is in a problematic situation: the lab is engaged in long projects, lasting several decades and requiring an extremely high level in scientific and technical skills (design, construction, operation of telescopes or particle gas pedals...). These projects are articulated in theoretical (experiment design), engineering (instrumentation design), technical (construction of the instrumentation) and analytical (data exploitation) phases. Researchers participate in the initial and ending phases, while engineers and technicians are more involved in engineering and technical ones. But all of them constantly collaborate to ensure that the instrumentation will meet the needs of the research. A problem comes from the fact that for individuals to remain employable over time, they must update their skills. For instance, it's impossible for some researchers, hyper-specialized, to keep up with the evolution of their field: they can be progressively confined to the maintenance of some instrumentations they conceived or are assigned tasks with a lower value added with respect to their qualifications. For example, a researcher specialized in optics who designed a detector for a telescope, is observed wiring the detector up, which should be done by a technician. Another case is the one of a professor, who struggles to find the time for research, due to her teaching duties. Consequently, she is assigned by the project coordinators the task of testing hypotheses known as false, that have to be verified as a scientific practice.

When the project ends, it's a problem: after 10-15 years focusing on a project, there can be a deterioration in the competences, due to a lack of updating on technological developments. So, engineers must renew their skills to be competent in a new project. […] That's not easy: there're different reactions. First, you must accept that people update their knowledge and competences, and there's no problem. Then, sometimes people pretend to be still up to date, or stick to the same projects [not to see their authority and prestige threatened]*, as there's always some maintenance or technical support to do. Also, people could isolate themselves from the team, into a project of their own: they don't do what they're asked to do, they do what they want to do.* (Hugo, Technical Director)

Career advancements

As said, external mobility is rare: employability matters internally, or within the labor market constituted by large international research groups. Being employable means updating one's skills coherently with the state of the projects, to participate in the subsequent phases or move to another project. Additionally, soft skills are essential for collaborative work. Researchers, engineers, technicians are involved in large, organized international collaborations. In the absence of control mechanisms, sanctions or rewards, clear prospects for career advancement, being employable implies remaining motivated and performing well to find a place in the favorite, most ambitious projects. Failing in doing so entails the risk of remaining stuck in a project or a specialization, without further evolution: this might lead to alienation, disengagement, even resentment. Understandably, those with the most precarious status (doctoral students, post-docs) feel most threatened and are most concerned about their future employability.

As a post-doc, you are asked to produce results: you don't have much time for learning. So, in each post-doc I was motivated because I met a team working on new, interesting topics. I could develop some personal topics, too. [...] In January, I will start a new position as a permanent researcher. If we had this interview one year ago, I'd have been less happy: postdoctoral contracts last just one year and are only renewable once, so at the end of two years you have to look for a new contract, it's very stressful. (Jules, post-doc who found a permanent position in another lab and would be leaving soon).

For employees with a permanent position, attitudes may vary between safeguarding balance and self-imposed pressure to keep moving forward.

I am not a careerist. I have soon realized that careers are a complicated subject for me: people have a lot of internal problems, since there are very few positions available [...]. So, I

acknowledge that my career is not evolving. [....] For a long time, we were obliged to prepare our application [to apply for higher positions internally], *but as soon as it wasn't mandatory, I stopped doing it, so I don't have much chance to evolve (*Charles, technician – mechanics department).

*I started as a technician ('Assistant Engineer') [...] and became a Research engineer, at the highest level of seniority [...]I could have gone to an even higher level, but I didn't, because I never worked aiming for promotions: that's not what motivated me. For me, motivation means having an interesting job, challenges, discovering new things. […] When I participated in transverse activities outside the laboratory - such as the mechanics' network, where I invested a lot over the years - the return on investment for the laboratory was not always very visible to the director or the researchers. (*François, now retired, worked in different support functions).

Job and career crafting – two strategies for career success

"Scientific freedom" reigns in the organization – employees are inspired by the phenomena observed and are proud to be part of ambitious scientific projects: they feel they are contributing to the advancement of knowledge. However, freedom is unevenly distributed among the various roles – researchers and professors, engineers, technicians: at each stage the constraints are tighter. Thus, employees exploit differently their room for maneuver. Moreover, their level of agency in shaping their career and determining their path also has different levels of constraints.

Thus, employees engage in various forms of job crafting and in career crafting with a double objective: on the one hand, in a short-term orientation, they look for satisfaction in their daily activities. On the other hand, they aim at shaping the career in the long-term, to maintain a good fit and achieve career success. These two facets of crafting are directed to the achievement of sustainable employability, coupling the short- and long-term perspectives.

Developing short-term sustainable employability through job crafting

Preserving one's health

At the lab, freedom and flexibility are declared: working hours are not imposed, tasks are neither prescribed nor controlled. However, the pace of the projects is dictated by the large international collaborations, which can create time pressure and stress. It's up to individuals to regulate their activity, to choose the pace and spaces to safeguard their health, improve their well-being, give meaning to their daily activity, and sustain themselves in the long term.

The academic framework allows for time management. So yes, we work all the time, but we decide when. So, it's not as hard as getting up at 4 a.m. to go to work in a factory and be in front of the machinery at 5 a.m. [...]. If I work until 4 am, which can happen, it's because I chose to. This freedom is interesting: you know a lot of people and you can interact with a lot of people. When we ask ourselves questions, we are not alone, we can interact with others. (Philippe, researcher, leader of a project)

Freedom can lead to focusing on tasks one enjoys more and neglecting the least favorite ones: task crafting allows to maintain a good level of commitment and enthusiasm despite the constraints.

*The only regret I have is that I love computer science and data analysis. Now, as a group leader, most of the time I have to delegate this work, and I have a supervisory role, but I miss getting my hands on the keyboard, so I do that too. My job is to be a writer: I have to write, write, write projects to get funding and it's frustrating. (*Nicola, researcher – project leader)

Being valued by the team is an essential dimension of job satisfaction: people make time to create valuable connections with colleagues and set up their activities accordingly. When this does not happen, the risk of being disengaged occurs.

During the covid-19 pandemic, the group used to meet for a virtual coffee every day at 2pm in videoconference to catch up with colleagues, keep morale up and unite the group (Philippe, researcher – project leader)

Giving meaning to the work

The scientific projects last for a long time: several decades can pass between the elaboration of the scientific theory, the design and manufacture of appropriate instrumentation, the data collection and analysis, and the publication of research papers. For this, it can be hard to maintain the motivation to achieve such faraway results. An example is the discovery of the Higgs Boson, postulated in the 1960s and experimentally confirmed in 2012 by CERN: the lab took part in the project, with the participation of several researchers, technicians, engineers.

The story each person tells and tells themselves about their activity is a determining factor to cope with the long time frame of the projects: focusing on the final objective helps to give meaning to the daily activities. At the same time, being involved in a project to advance human knowledge contributes to make the job meaningful even in the simplest roles:

I've had the opportunity to contribute to experiences that led to some Nobel Prizes, and even though I've only been involved in small activities, there is still pride being part of this team: for me, satisfaction comes from seeing that I can help and have expertise, as a technician, to

move things forward. [...] It's stimulating to know that I am going to advance science...what interests me is to see the usefulness of what I do. (Geneviève, technician – electronic department).

When the achievement of scientific success seems too far away or uncertain – which sometimes is, by its very nature – then the calling, the passion give meaning to the job, in a cognitive crafting process.

The idea that through research we can advance human knowledge is a driving force, as every researcher will tell you. [...] Knowing that gamma rays arrive directly on the Earth is still not very useful. But the techniques, the methodologies that we have are top notch. So, there's not necessarily a short-term payoff, but there may be in the future. (Paul, researcher)

Developing long-term employability through career crafting

Sustainable employability is built over the long term: the challenge is to remain attractive on the internal job market or in the scientific community. This implies promoting oneself in networks and working on one's reputation among colleagues. At the same time, it's necessary to continue learning.

Being visible

The continuous mutual adjustment and collective work implies building solid interpersonal relationships. Being part of the network is necessary to be enrolled in projects that grant visibility and importance: the acknowledgement from colleagues represents a capital individuals can build upon.

Status is important too: for instance, the title of doctor opens the door to the scientific credibility. Engineers and even less technicians don't get such acknowledgement. This *de facto* professional hierarchy favors researchers, who collect the celebrity of scientific discoveries.

Conversely, engineers and technicians have more difficulties in finding visibility in the international collaborations: they try to achieve acknowledgment among their peers, especially in the national network of their profession, promoting the sharing of innovation and exchange of ideas.

Past contributions to discoveries or projects attest, rightly or wrongly, the competence of a person. Strategically, individuals have an interest in participating in projects where they can have the highest impact given their expertise. For example, some engineers seek to join teams in which their contribution will guarantee them their presence among the authors in

publications. Furthermore, sometimes it's necessary to take part in some groups for the quality of the network, despite this implies accepting roles of lesser importance.

Often, working on big collaborations, when you are a professor, is very difficult because the project is a machine that never stops [...]. If for one semester, you are stuck with teaching, you can be completely unaware of the advancements in research. Then, three months later, everything has been done and then you are useless. Sometimes, you feel like a small cog in an enormous machine. You can have this frustration: in such a massive thing, you have the impression of being a small, tiny, replaceable thing… (Lise, professor and researcher)

These strategies suppose that individuals have an optimal knowledge of the social field of the international scientific community. Being part of a community is essential and people consider many tactics to improve.

*In research, you have the freedom of your subject. Paradoxically, if you want to be productive, you must work with others and be cooperative, because you need to collaborate if you want to publish. So, we have autonomy, but at the same time, working with others in a group, we must collaborate and therefore bear some constraints. (*Lise, professor and researcher)

Continuous learning

Updating knowledge and skills is a challenge for individuals who wish to evolve. This can be done, especially for technicians and engineers, thanks to professional training that overcomes the obsolescence of skills. This frequently occurs since they spend several years on projects requiring specific skills. For this, the laboratory has set up a training plan for its technical staff.

Each time I took the chance to improve. I made difficult choices, but they allowed me to progress. So, I have the privilege of discovering new technologies: it's more exciting than staying in a routine, on the little bases you know. Opening to new technologies is a challenge. You know, at the age of 42, I went back to high school for two years to take drawing classes, to improve. Going back to school with 16–17-year-old kids is not that easy. But you must be able to get out of your comfort zone. [...] And frankly, I'm happy with the path I've chosen. It also motivates me: when I come to work in the morning, I'm motivated (Charles, technician – mechanics department)

For researchers, updating knowledge is an essential part of their professional activity and is less the object of deliberate strategies. This involves choosing activities that allow them to learn. Thus, some engineers make time to read scientific articles to keep up with the technologies used by other research teams.

So, there's this fact of engineering: it's not "just an engineer"... the name is misleading because an engineer in my role wouldn't give the same contribution as me: to build such sophisticated instrumentation, you need a deep knowledge of the phenomenon that you're studying (Stéphane, research engineer – mechanics department).

Learning also takes place by capillary action in the work activity itself. Joining a team allows to collaborate with colleagues whose skills are complementary, so they can develop their own. *The fact that we can discuss informally on what we are working helps us advancing because, alone, we often go in circles. The others' point of view is particularly important: for one's career, being in a group where one can do this is very important* (Philippe, researcher – project leader).

Learning is also about finding professional opportunities to do so. This may involve seeking out activities that allow to "stretch" the role into tasks in which one is not competent yet.

Discussion

The results presented above clarify how individuals use the room for maneuver to craft their job and career, to develop sustainable employability.

We observe how task, relational, and cognitive crafting can be considered strategies aimed at preserving oneself and maintaining motivation in the short term. In the long term, career crafting, in terms of being proactive in career reflection and construction, allows to accumulate the resources to remain in control of their trajectory and achieve success. It is a matter of "remaining attractive" in the labor market, according to De Grip et al. (2004), which implies making oneself visible and developing knowledge and skills that can be used by employers.

Table 1 summarizes these observations.

Table 1

Sustainable employability and career success, managerial imperatives

In this paper we contribute to the literature on sustainable employability, showing how it's built over time as a process. Doing so, we build a bridge between the literature on employability and careers. These fields of research both deal with individuals' professional paths but diverge. The literature on employability focuses on the risks attempting to the quality of working life: employability is often associated to threats of unemployment, exclusion, downgrading. The

notion of career doesn't carry such a reactive dimension, although the recent contributions on unstable and nomadic careers, insist on the individual agency to develop their employability (Fugate et al., 2021; Forrier et al., 2018; Hall et al., 2018). Sustainable employability emphasizes the ability to access valuable contributions through one's work. It seems connected to career success, linking these literature streams: since it's individuals' responsibility to manage their careers, they need to work on their employability (Akkermans and Tims, 2017). Indeed, by coupling employability with proactive behaviors and career competences, one can achieve satisfaction with their present job and long-term career (Tims and Akkermans, 2020). This seems particularly true in the context we have studied: certainly, a public research lab in physics is a particular case, but it shares some traits with organizations structured in adhocracy, around long-term projects, where the organization's activities are shaped by people's knowledge, competences, and aspirations. Thanks to personal and professional development individuals develop the organization and build its strategic capacity (Van der Klink, et al. 2016). These contexts aren't that rare and are likely to grow: there, employability isn't just a matter for individuals, but also for the organization, which must be able to capitalize on the development of its employees to ensure its performance.

Here, job crafting is particularly relevant. It can't be considered just as a strategy to make work more sustainable as some authors have presented it when discussing the case of cashiers in supermarkets or nursing staff in hospitals (Lazazzara et al., 2020; Berg et al., 2008; Wrzesniewski and Dutton, 2001). In fact, in these jobs, job crafting is encouraged by the organization because it's necessary for its success. However, the intended uses of autonomy are for production and project progress, but truly little for success of individual strategies.

What is more embraced by individuals to find long-term satisfaction and in the end having a successful career is career crafting: employees adopt proactive behaviors and attitudes, enacting their career competencies in the present (Akkermans et al., 2019). The freedom pervading the organization leads to individuals constantly thinking strategically. Two time horizons can be distinguished: short- and long-term – when crafting their daily activities, taking into account their long-term consequences.

Thus, letting people the freedom to adapt their job to themselves leads to job crafting, but also to crafting their careers with long-term goals, aiming at career success. The two time frames can thus be linked by the concepts of sustainable employability. On the one hand, employees focus on their current project, achieving good results and performances, maintaining health and well-being: they orient their efforts towards the most immediate dimensions of sustainable employability. On the other hand, employees focus on the long-term outcomes for their career

development: they will concentrate on developing new competencies, working proactively to build a good reputation in their professional network, to remain attractive in the labor market. Hence, the short- and the long-term dimensions of sustainable employability can be achieved through job crafting and career crafting, adapting their strategies according to the time frame they are working towards.

Individual strategies, but negotiations with the work group

Our observations contribute to a better understanding of the processes by which individuals orient their careers, shape their work activities, and develop their employability. By observing individual strategies and trajectories in a qualitative way we contribute to studies that have already quantitatively determined links between career competencies, job crafting, and career success (Akkermans and Tims, 2017). Indeed, we explain the individual and collective processes by which these phenomena occur. Rather than focusing on the stable characteristics of individuals or jobs, we look at the intentional strategies workers deploy to maintain their jobs or progress.

Observing individuals working in the same organization, we can better perceive the collective dimension of these phenomena. We emphasize the importance of the relational dimension at work (Grant and Parker, 2009): social interactions increase the perceived value of individuals' contribution (Tims and Parker, 2020). Employees value the creation of social ties with their colleagues to obtain approval of their current and future attractiveness on the internal or external labor market. Furthermore, job crafting takes different forms and purposes depending on the role and the degree of freedom in the organization: when constraints increase, the room for maneuver is reduced, hence employees have to discuss with others to organize their activities. This impacts their long-term career, as choices may be more limited for some people than others. Therefore, the literature has started investigating the consequences of job crafting on colleagues (Bakker et al., 2016; Tims and Parker, 2020), but such aspect should be explored more in depth, especially considering the possible disadvantages in terms of frustration and disengagement when job crafting is not possible for all at the same level.

Sustainable employability: a capital to build on

The literature abounds in warning about the potentially harming effects of making individuals the only responsible for their employability. Indeed, employable individuals have many qualities: proactivity, openness to change and opportunities, transferable skills and willingness to continuously learn (Van der Heijden et al. 2016; Guilbert et al. 2016). Not all the employees

are equally gifted and working on one's employability can be exhausting; the induced competition can lead to some polarization effects, as evoked by Forrier and colleagues (2018). Our analysis raises an interesting point on how individuals regulate their activity to remain employable for a long time. First, individuals need to have acquired the required skills. Then, they constantly balance activities to keep thriving in the profession, lowering stress, and increasing motivation: in this respect, the Job Demand-Resource model is enlightening (Bakker and Demerouti, 2007; 2017; Demerouti, 2014).

Researchers and engineers in the organization we studied are torn between two contradictory objectives: on the one hand, they have to master a field of expertise in their stable networks, being successful and effective. Moreover, they must take on new projects to develop their skills and increase their reputation. Such conflicts are evident considering collaboration and interdependencies are essential. However, taking part in collective projects, within a stable team over time, involves at least two risks: first, losing visibility in the wider scientific community; second, not learning as much as one could through contact with professionals in other research structures. Thus, we can include the risk of missing learning and networking opportunities as an obstacle for the development of employability and career success. First, being excluded from a wider network prevents the creation of new chances to learn and collaborate in new groups in the future, negatively affecting employability. Second, as stated by the literature (Akkermans and Tims, 2017; Van Harten et al., 2021; Fugate et al., 2021), a lifelong learning approach is necessary to maintain employability. Increasing new competencies lowers the risk of being unemployable in case of obsolescence of some of them. Hence, it's important to underline the missed opportunities of learning new skills as a risk, which could prevent individuals from being employable in the long. Considering the tasks one performs, a similar problem occurs. Certainly, individuals' short-term interest is to exploit the skills they excel in for the group, easily showing their competences. However, this strategy based on stability doesn't allow growth, new skills development, and professional progress.

In conclusion, as we hope to show with our research, developing one's employability involves investing in oneself, hoping to have in return better opportunities in terms of career development. In this sense, employability represents a capital to be developed (Peeters et al., 2019).

Appendix

Table 1. Job and career crafting strategies

Job Crafting				
		Task crafting	Relational crafting	Cognitive crafting
Short-term orientation	Preserve one's health	Regulate work intensity	Seek support from colleagues	Reflect on one's activity as being useful to colleagues or students
	Giving meaning to the work	Choose activities that one likes	Strength and participation in enjoyable work groups	Strengthen one's motivation to participate in an organisation that contributes to advances in knowledge
Career Crafting				
		Proactive behaviours	Proactive attitudes	
Long-term orientation	Being visible	Seek to excel in a field to build a reputation	- Seek to participate in leading programs - Career success thanks to acknowledgement and awareness of having a good reputation	
	Developing one's skills	Evolve to new tasks that will allow you to learn new things	- Working with new people to foster learning by doing - Professional development to bring important contributions in the project	

Paper 3. *We're all in this together!* Job crafting and prosocial behaviours among low-skilled workers

In the previous chapters, we have focused on the features that contribute to an individual's employability and have explored how individual initiative can, through job and career crafting, contribute to the creation of sustainable employability.

This chapter is still dedicated to the process of creating sustainable employability. The focus, however, changes: we deal with low-skilled workers. The paper we present in this chapter has been presented in a first version at the Doctoral Workshop at the AGRH Conference in Brest, 2022.

Then, it has been accepted for presentation to the Academy of Management Annual Meeting, which has been held in August 2023 in Boston, US.

The focus of the paper changes with respect to the previous one: we are observing low-skilled workers in this case. These employees do not have any highly specialised knowledge or expertise but have simple jobs. For them, being in a situation of unemployment or having to stop working for a period of time would be a particularly challenging situation; finding a new job for them would be a complicated matter.

Moreover, the work they carry out is often stressful and physically and mentally straining; they need to face the many problems related to the job and make sure they can resist for a long time in that position. To do this, they manage to balance the job demands and job resources of their work thanks to job crafting.

Therefore, in this study, we focus on personal initiative, resilience, and flexibility as personal conversion factors for thriving in one's job. Also, we investigate the organisational conversion factors, such as the negotiations carried out with the hierarchy and the working conditions the organisation sets up.

The theoretical framework in our paper draws from social regulation theory and job crafting. The social regulation theory (Raynaud, 1979) proposes that rules are not stable in organisations but that organisations create rules in three complementary ways. Social regulation discusses the ongoing formation of formal and informal regulations. The approach emphasises three layers of workplace regulation: first, "control regulation, which is management-imposed

regulation. Controlling behaviour and setting corporate strategy are the goals (Reynaud, 1991). Second, employees create "autonomous regulation from the bottom up. They use the flexibility of formal norms to advocate for co-creation. Raynaud claims that Taylorism cannot be fully implemented since there is always some part of work that management cannot control. Autonomous regulation can support formal norms rather than oppose them (Reynaud, 1988).

The two modes of regulation interact, creating tension and conflict. Hence, "joint regulation" (Reynaud, 1979; 1988) is the result of a negotiation, whether formal or informal. The top-down regulation is therefore combined with the bottom-up rules to create an agreement.

The social regulation theory may be applied to the challenges associated with job design, where usually jobs are planned in a top-down manner by managers for employees. Nevertheless, unidirectional instruction may cause disengagement and poor working conditions, for instance, when the organisation of work is overly tacit. The job characteristics theory states that jobs need certain attributes to help people thrive, typically affecting motivation, performance, engagement, satisfaction, and turnover. Hackman and Oldham emphasise skill variety, task identity, task relevance, autonomy, feedback, and autonomy (Hackman and Oldham, 1975, 1976; Oldham and Hackman, 1980). Skill variety is the degree of variety in activities, competences, and talents a job requires; task identity is the degree of completion of an identifiable piece of work; task significance is the impact a job has on others; autonomy is the freedom to structure one's work; and feedback is how job results provide information on one's performance. Yet, when the work design is inadequate, employees can change their job to make it more acceptable to themselves through a process called job crafting. Based on the tradition of work design, job crafting allows employees to cope with the rigidity of the top-down structure of the job, making it fit better to themselves: job crafting may be considered a trigger for a new, bottom-up regulation. In this view, we can see how the social regulation theory acknowledges some limits in the monitoring of the individual behaviours employees adopt when the control regulation appears too harsh.

After reviewing the literature on social regulation theory, job crafting, and low-skilled and dirty workers, we aim at understanding which is the process of facing stress and find acknowledgment in the work for low-skilled individuals through job crafting. Moreover, we seek to comprehend to what extent individual and collective job crafting represent a way to compensate the top-down direction in simple, routine jobs.

We carried out our qualitative study thanks to participant observation among the warehouse workers of a mid-sized manufacturing firm located in the Paris region. The observation was

carried out in two phases: a calm one and a more intense one, to grasp any eventual differences in behaviours.

In addition, we carried out several interviews with the human resources manager, the logistics manager, and the HR business partner.

The results of our study highlight that job crafting activities are largely present, and the warehouse manager, who plays a key role in the management of the activities, is aware of that. Employees suggest some innovations in job crafting as a way to make the work less draining. These innovations prove to be effective ways to enhance the warehouse's processes, and everyone adopts them as part of the routine.

Job crafting helps increase the feelings of closeness among the team members, especially in tough times when mutual help becomes essential. Indeed, in those periods, we could observe an increase in prosocial behaviours by employees, who seemed to be more altruistic towards others.

In this environment, the role of the warehouse manager is particularly important. He is a trusted reference point for the workers, who rely on him and listen to him: he gives them the flexibility to craft their job, but at the same time reminds them of the necessity to be rigorous and precise, avoiding that things get out of hand.

Certainly, the role of the organisation in this case is of primary importance: the climate is based on trust and a friendly working environment, granting employees support, care, and a feeling of involvement in the firm. Being aware of the importance of job crafting, the middle manager helps employees craft their jobs in a positive way for their colleagues, the employees, and the organisation.

Our findings allowed us to underline the importance of job crafting in coping with a stressful job and the role of organisational support to maintain autonomy even in a strictly regulated job, fostering engagement and motivation.

The result of our research has led us to build a bridge between the literature of job crafting and the social regulation theory: we argue that job crafting can be seen as a micro-foundation of autonomous regulation. Indeed, job crafting is a set of bottom-up behaviours directed at improving one's own situation. Job crafting can be considered a first, practical way in which autonomous regulation starts before new behaviours and routines are institutionalised.

In this perspective, we can also show how job crafting is a driver of innovation in processes and the optimisation of resources.

Finally, we highlight the importance of the social support between the individuals: for them, the toughest periods are the ones in which the social dimension is enhanced. Counterintuitively,

we could observe an increase in prosocial behaviours during the peak periods: employees can improve the feelings of cohesiveness in their working environment by triggering an imitation behaviour by their colleagues and fostering a positive attitude at work. Thus, we contribute to the literature on the consequences of job crafting by showing the positive outcomes of prosocial intentions in job crafting.

We also remind of the importance of organisational support to make the work for low-skilled workers more tolerable, which could open avenues to explore for sustainable human resource management.

In sum, this paper is directed at exploring the processes of job crafting at the micro-level, observing individual behaviours and their consequences at the team level. Indeed, to develop sustainable employability, it is essential to maintain a high level of health at work, as well as wellbeing and motivation in the day-to-day workplace. This enables individuals to maintain their activity and vitality throughout their careers. For physically and mentally demanding occupations, therefore, it is even more crucial to be durable, resilient, and able to manage job-related stress and demands. In these instances, maintaining employability requires the ability to maintain physical and mental health. Therefore, in these circumstances, the support of the organisation and the co-workers is crucial. Job crafting is a method for coping with tension and adapting the job to the individual so that he can enhance his mental and physical health. Job crafting, done in accordance with the team, can really be helpful for low-skilled workers and contribute to the development of sustainable employability.

We're all in this together! Job crafting and prosocial behaviours among low-skilled workers

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Abstract

In today's world of work the awareness is increasing as for the importance of achieving well-being, to find meaning in one's job, and to cope with high workloads in an effective way. While this seems to be more easily achievable for highly skilled employees, it looks more difficult for low-skilled workers. Low-skilled workers are mostly employed in simple, routinary jobs, which don't offer much room for career progression, nor for finding motivation and realisation. Indeed, low-skilled workers face the risk of demotivation, stress, alienation (Bakker and Demerouti, 2017): consequently, the turnover is high. This can lead to an increased instability in job and precarity in life.

In this paper, we focus on how low-skilled workers manage to engage in job crafting activities to cope with stress and to boost their motivation both at the individual and team level. We carried out our qualitative study conducting a participant observation (Spradley, 1980) among the warehouse workers in a manufacturing firm in France. Our observation was carried out in two periods: a calm and a more stressful one, to assess the differences between the two.

In our study, we show how job crafting is largely present among low-skilled workers, with very constraining jobs, and we underline how helpful it is to reduce stress and cope with challenging moments. Indeed, job crafting is used to optimize the job demands and increase efficiency. Moreover, we notice that individuals engage in job crafting with prosocial intentions too, especially in tough times: this helps them reinforce the union of the team and maintain the flow. Job crafting also promotes innovation, as the practices spontaneously created by individuals can then be integrated into unwritten but shared rules.

Thanks to our study we can contribute to the literature in various ways. First, adopting the point of view of the social regulation theory (Reynaud, 1979; 1988; 2002), we show how job crafting can be approached to an autonomous, bottom-up way for workers to generate new rules that suit better to them. Second, we aim at contributing to the unification perspective in the literature on job crafting: while this argument has been proposed theoretically (Zhang and Parker, 2019), we propose an empirical proof. Moreover, we show how the process of regulation of job

demands and job resources consists in a process of optimization of job demands (Zhang and Parker, 2022), trying to maximise their outcome without the risk of burnout due to high levels of stress (Bakker and Demerouti, 2007).

Introduction

The recent trends in the world of work emphasize the importance of well-being, meaning, and satisfaction at work, and discuss the opportunities given by the implementation of new technologies in organizations (World Economic Forum, 2022). Low-skilled workers are often employed in simple, repetitive jobs, in taylorist organizations, and have to respect a stringent organization of work that doesn't leave them room for decision-making (Sanders and De Grip, 2004; Kurekova et al., 2013). Also, these jobs can be associated to "dirty works", jobs that are considered as degrading from the physical, moral, social perspectives (Ashforth and Kreiner, 1999). In this paper, we adopt the point of view of the social regulation theory (Reynaud, 1979; 1988; 2003), which explains the process of creation of rules in organizations. It identifies two regulation mechanisms: the control regulation, consisting in the top-down rules dictated by the management, and the "autonomous regulation", involving the bottom-up rules employees set up. The two are combined in a joint regulation, coming after a negotiation among the parts and that includes both types of rules. We look at the micro-foundations of the social regulation theory: we seek to understand the individual behaviours contributing to the autonomous creation of rules. In this sense, job crafting, a set of proactive, spontaneous, bottom-up behaviours directed at modifying one's job to adapt it more to the employee (Wrzesniewski and Dutton, 2001; Tims and Bakker, 2010), offers interesting perspectives. Job crafting happens in response to the need to control some aspects of the job, to find a deeper meaning, or to reduce the straining consequences of high workload and fatigue (Demerouti, 2014). It has proven to have positive effects for employees, in terms of job satisfaction, work engagement, well-being, and organizational benefits, in terms of improved organizational climate, a lower turnover, better performances. The literature has highlighted some unintended consequences too, especially overload for colleagues, strain and stress (Tims at al., 2012; Petrou et al., 2012; Berg et al., 2013; Lazazzara et al., 2020). Thus, job crafting seems to offer low-skilled workers the possibility to regulate a demanding job and opportunities for gaining some control in their daily activities. This paper examines the actions individuals engage in, to shed light on the job crafting process, its underlying mechanisms, the reasonings and outcomes. We opted for a qualitative methodology, engaging in a participant observation among warehouse workers in a

company near Paris, France. We found that job crafting effectively helps individuals coping with the stress and hardness of their work. We highlight the effect of job crafting on colleagues: job crafting can be a mean to increase the social resources of the job, to create stronger, deeper links with colleagues.

In the toughest periods, we noticed an increase in prosocial behaviours and flow. Individuals modify their jobs to help their colleagues first: for them, the team comes first. Job crafting contributes also to bottom-up process innovation and can be considered as a first, informal step for autonomous regulation, according to the social regulation theory.

We contribute, therefore, to the social regulation theory, showing how job crafting can be considered as a foundation to create autonomous rules. Furthermore, we contribute to the literature on the unification perspective of job crafting, showing how the cognitive dimension of job crafting triggers for modifications to job demands and job resources.

Literature review

The social regulation theory: hard work, tough rules. How to escape them?

The social regulation theory was proposed by the French sociologist Jean-Daniel Raynaud, who argues that rules are not stable in organizations, but that there exist three different, complementary ways produce rules in an organization (1979). Indeed, social regulation explains the permanent creation of rules, both formally and informally. In particular, the theory highlights the presence of three levels of regulation at work: first, the "control regulation" is based on top-down rules coming from the management to the workers. The goal is to control and discipline behaviours, but also to set the strategy of a business (Reynaud, 1991).Second, is the "autonomous regulation", that employees spontaneously and collectively set up, in a bottom-up way. Thus, they exploit the room for manoeuvre that formal rules leave them, advocating for a co-creation of rules. Indeed, argues Raynaud, a complete, effective implementation of the Taylorism is impossible, as there's always some aspect escaping of the work that the management can't control. The autonomous regulation isn't always intended as a rebellion against the formal rules but can be a complement to them (Reynaud, 1988).

Third, when the two types of regulation interact, this results in moments of tension, and even conflict. According to Reynaud (1979; 1988), this is a normal mean to produce rules: it consists in a normal process to reframe the different interests. In fact, conflict ends up with a combination of both types of regulations: first, a phase of negotiation, of mutual adjustment makes it possible for the two parts to find an agreement in an acceptable way. After that, the

negotiated rules are then legitimized and accepted by the two parts: 1the employees can create bottom-up rules in such a way that is acceptable for the management. Thus, the management agrees to local adaptations: in this way, the workers can exploit their intelligence and knowledge of the job, creating rules that are useful and even more convenient for the management. Therefore, the "joint regulation" (Reynaud, 1979; 1988) comes from a form of negotiation – that can be official and formal, or not. The results achieved thanks to this type of regulation are therefore shared and agreed upon by the two parts. While the usual way of organizing consists in top-down directions given by the management, they usually leverage on it, setting up processes, rules, and objectives, making sure these are homogeneous. When the two types of regulation interact, it is important that the combination of top-down and bottom-up rules is effective, even encouraging the autonomous regulation (Reynaud, 1991; 1988). However, the latter must be at the service of the organization's strategy, effectively complementing the top-down regulation. Autonomous regulation can be fostered by the management in three different ways: by organizing the work with more autonomy, flexibility, project works. Also, it can come from new management ways, that insist more on participation and trust and less on authoritative styles. Finally, some tasks can be decentralized to middle managers closer to the employees. The social regulation theory can thus be approached to the issues related to job design, defined as a combination of tasks an employee is assigned to in an organization (Ilgen and Hollenbeck, 1992) – usually implies that jobs are designed in a top-down direction, by managers for employees. However, this unidirectional guidance might possibly lead to disengagement and unsatisfactory working conditions. For instance, this is the case when the organization of work follows the Taylorist approach too strictly. In response to that, the job characteristics theory underlines that jobs need some features to let employees thrive, often having a major role in influencing employees' motivation, performance, engagement, satisfaction, turnover rate. In fact, Hackman and Oldham underline the importance of skill variety, task identity, task significance, autonomy, feedback (Hackman and Oldham, 1975, 1976; Oldham and Hackman, 1980). Skill variety refers to the degree of variety in activities, competences, and talent a job requires; task identity identifies the degree of completion of an identifiable piece of work; task significance refers to the impact a job has on others; autonomy involves the freedom to structure one's work; feedback refers to the how the results of the job allow to obtain information on one's performance. However, when the job design is poor, employees have to adapt their job in order to do make it more suitable to themselves, in a process called job crafting. Building on the tradition of job design, job crafting allows employees to cope with the rigidity of the top-down organization of the job, making it

suit better to themselves: job crafting can be seen as a trigger for a new, bottom-up regulation. In this sense, we can notice how the social regulation theory admits some limitations in the observation of the individual behaviours employees adopt when the control regulation appears too strict. Hence, job crafting can allows to focus on the individual initiative taking, as we explain in the following paragraphs.

Job crafting

When employees find a mismatch between the desired situation at work and their experience, they can create better working conditions by modifying their jobs, making them suit better to themselves: so, they can find a higher satisfaction, motivation, and work engagement, lowering the stress and reducing the risk of burnout.

Job crafting was first defined by Wrzesniewski and Dutton (2001) as a bottom-up, proactive, and continuous process of modifications of the job's characteristics to make it more suitable to the individual (Wrzesniewski and Dutton, 2001; Berg et al., 2010; Berg et al.,2013). Individuals craft their job to face the difficulties of the top-down job design approaches in meeting their needs for motivation, performance and career development: they try to "create the work environment that is beneficial to them" (Dubbelt et al., 2019, p. 300). Job crafting can occur even in the simplest and most routinary jobs, using the daily tasks and interactions at work as building blocks to adapt to the individual according to their preferences (Berg et al., 2008; 2013; Slemp, 2016). Thus, employees can modify the way they work and the content of the job (*task crafting*), the variety and scope of the relationships in the workplace – as for quality, quantity, or both (*relational crafting*), the way they think about their job, their perceptions about it, attributing more meaning to the whole and altering the way they deal with it (*cognitive crafting*) (Slemp, 2016; Wrzesniewski and Dutton, 2001; Berg et al., 2013; Tims and Bakker, 2010). A complementary perspective of job crafting comes from the Job Demand-Resource Model (Bakker and Demerouti, 2007; 2017), which explains the dynamics of stress regulation, motivation, and work engagement. According to the authors, employees' wellbeing and effectiveness can be produced by two sets of work characteristics, encapsulating different aspects of the job: job demands and job resources (Bakker and Demerouti, 2011). While job resources are necessary and important on their own, job demands may cause hindrance when a high level of effort is required for a long time. However, demands can also act as motivators, challenging individuals to improve performances (Bakker and Demerouti, 2007; 2017). The authors define job crafting as a process of regulation of job demands and job resources to increase motivation and reduce stress. Thus, job crafting takes four forms: *increasing structural*

job resources, increasing social resources, increasing challenging job demands (for their motivating potential), *decreasing hindrance job demands* (Demerouti, 2014; Bakker and Demerouti, 2017; Tims and Bakker, 2010; Tims, Bakker, and Derks, 2012).

Increasing the structural resources can improve work engagement and commitment, also acting as a buffer against burnout, while augmenting social resources allows employees to find more support and deeper connections at work. When employees face high workloads that exceed their capabilities, they can experience stress and exhaustion: they will then decrease hindering demands, lowering the workload, and reducing stress (Tims and Bakker, 2010). Instead, increasing challenging demands has positive effects: by taking on new challenges, individuals aim at improving their skills, their motivation, and achieving good results. Further elaborations of job crafting in the Job Demand-Resource model perspective classifies job crafting into *seeking challenges, seeking resources, reducing demands* (Petrou, Demerouti, and Schaufeli, 2015). The literature on job crafting has been following the role-based perspective or the one based on the job demand-resource model, with some consequent lack of clarity in the definition of job crafting. With the purpose of providing an integrative definition and overcoming the issues in the conceptualization, Bruning and Campion (2018), define job crafting as "the changes to a job that workers make with the intention of improving the job for themselves" (Bruning and Campion, 2018, p. 500). They identify the defining features of job crafting as a set of changes that are "self-targeted and intended to the benefit of the individual crafter" (*ibidem*). Also, changes are "volitional", leading to noticeable, permanent modifications of tasks, relations, or cognitive perceptions of one's job. The authors argue that job crafting is present in two forms: *approach and avoidance crafting*. The first is directed at improvements and problem-solving, whereas the second reduces the straining and hindering aspects of the work, from the point of view of tasks and social boundaries of the job. They classify job crafting according to two dimensions: role- and resource-crafting, and approach- and avoidance-crafting.

Zhang and Parker (2019) aim at solving the confusion about the nature of cognitive crafting. In fact, according to Wrzesniewski and Dutton (2001), cognitive crafting is a core element of job crafting, allowing employees to reframe their perception of the job, even without a behavioural adaptation. Individual perceptions of job characteristics influence the meaning attributed to the job, work identity, and emotions. Conversely, in the Job Demand-Resource model perspective, cognitive crafting is seen as a passive adaptation to the job, without tangible changes, hence neither crafting (Bakker and Demerouti, 2017; Tims, Bakker and Derks, 2013). To overcome the issue, Zhang and Parker (2019) define a three-level hierarchical structure of

job crafting: (1) first, *job crafting orientation* – approach or avoidance crafting, directed at attaining positive work aspects or avoiding negative ones. Second (2), *job crafting form* – behavioural or cognitive: one changes the actual job, the other modifies how the worker thinks about it; third (3), the *job crafting content*, focusing on job demands or job resources.

Employees engage in job crafting for various reasons: they need to control some features of the job, finding a deeper meaning in their daily activities (Demerouti, 2014). Moreover, employees wish to satisfy a basic human need of connection with others, to improve the perception of themselves, increasing person-job fit, motivation (Wrzesniewski and Dutton, 2001; Hu et al., 2020). Job crafting can help individuals to develop deeper knowledge and reach career goals (Lazazzara et al., 2020; Petrou et al., 2012). When the working environment isn't healthy, job crafting helps individuals improve it, minimizing the potentially hindering consequences of their job (Demerouti, 2014).

The literature gives evidence of several positive effects of job crafting, both on individuals and organizations, in terms of satisfaction and work engagement, well-being, person-job fit, employability (Tims and Bakker, 2010; Lichtentaler and Fischbach, 2016; Berg et al., 2013; Slemp and Vella-Broderick, 2014). Job crafting is linked to enhanced self-esteem, meaningfulness, occupational identity, job satisfaction (Petrou et al., 2018). At the organizational level, research underlines outcomes such as organizational commitment (Ghitulescu, 2007), better performances, higher employee retention (Tims and Bakker, 2010). However, job crafting may entail some unintended consequenecs as well: when demands are too high to handle, some damaging effects can be present, leading to lower engagement, lower satisfaction, exhaustion (Zhang and Parker, 2019; Liechtentaler and Fischbach, 2016; Dubbelt et al., 2019). Also, possibilities of overload, regrets, home conflicts, stress and strain are evidenced (Lazazzara et al., 2020).

Job demands crafting: managing stress & optimizing demands

When individuals are involved in highly demanding jobs, they might face difficulties in recovering, leading to fatigue and stress. (Bakker and Demerouti, 2017). When job demands are too high for prolonged periods of time, individuals may experience burnout: job crafting can regulate the job demands to effectively avoid such risk (Tims et al., 2012). When it comes to job crafting directed at job demands, Zhang and Parker (2022) identify two attitudes: the first aims at reducing demands (Tims et al., 2012; Petrou et al., 2012), whereas the second at optimizing them (Demerouti and Petrou, 2018). Optimization of demands implies increasing

the efficiency and effectiveness: it's a proactive, approach-oriented behaviour, positively linked to work engagement (Zhang and Parker, 2019; 2022; Demerouti and Petrou, 2018). Conversely, reducing demands is considered an avoidance-oriented behaviour: in this sense, reducing and avoiding tasks has a negative connotation and can be perceived negatively by colleagues, while optimizing demands has positive effects as a proactive approach (Tims and Parker, 2020).

Collective job crafting and consequences on colleagues

Job crafting is carried out by individuals in organizations, impacting the colleagues and being influenced by the social context they are embedded in. On this, Tims and Parker (2020) argue that job crafting can have a "surprising" or "disturbing" effect, or both, on colleagues. The perception of job crafting will influence its outcome – both positively and negatively (Kooij et al., 2017; Bruning and Campion, 2018), but also how it will be carried out in the future.

The literature on job crafting considers the social context in different ways: first, focusing on job crafting at the team-level, in a collective process (Leana et al., 2009; Tims et al., 2015). In this case, crafting the job as a collective effort entails positive outcomes, in terms of individual and team performance, work engagement, improvement of the work environment (Leana et al. 2009; McClelland et al., 2014). Second, the literature investigates the possible effects of job crafting on the co-workers: social norms and working conditions determine how job crafting is carried out. Expansive job crafting behaviours are likely to be transmitted to colleagues, generating positive consequences for both the crafter and the co-workers (Mäkikangas et al., 2017; Bakker et al., 2016, Peeters et al., 2016). Resource-seeking behaviours are encouraged by feelings of attachment, warmth, empathy (Peeters et al., 2016). However, some unintended consequences might arise, in terms of an increased workload for colleagues when someone avoids some tasks: this can lead to exhaustion, disengagement, and conflicts (Tims et al., 2015). Third, the role of the leader is important in determining how job crafting is carried out: leaders can provide occasions, advice, and encouragement to employees. In fact, supportive leaders encourage the increase of social resources and seeking challenges, with positive consequences in terms of well-being (Wang et al., 2020; Dubbelt et al., 2019).

In this paper, we will focus on the collective dimensions of job crafting, and on the influences of such behaviours on colleagues. We conduct our study focusing on low-skilled workers: their jobs are often characterized by high levels of interdependencies, so they are likely to influence each other. Moreover, they are often guaranteed a low level of autonomy and their jobs tend to be repetitive and hard, as we explain following.

Low-skilled workers

Low-skilled workers are considered part of vulnerable workers, together with minorities, immigrants, young or old people in the job market, women. These workers face several challenges in finding and maintaining a job, and are often employed in unstable, low-paid job. Kurekova and colleagues (2013) describe low-skilled workers from considering "market participation, vulnerability, and the distance from the labour market" (p. 14), underlining that these workers are often at the borders of the labour market. The authors propose a classification of low-skilled employees – including low-educated people, people with obsolete skills, temporarily low-skilled workers, mismatched and overqualified workers, discouraged and detached employees, displaced workers, and stigmatized workers. Low-skilled employees rarely have access to good jobs: as Lindsay and McQuaid (2004) point out, they are often employed in "McJobs" – that is, "low-skilled, low-paid, service occupation" (p. 301). These jobs constitute an increasingly frequent form of employment, especially among young people and women, in unstable and individually crafted career paths. They often provide only low salaries, low level of work-life balance and stability, without possibilities for career progression: employees are condemned to "a cycle of in-work poverty, based on horizontal movements between short-term, low-skilled service jobs" (p. 301). Low-skilled workers have to cope with a limited number of opportunities in the labour market due to the high intensity of skills in the economy (Lofstrom, 2013): hence, they usually operate simple processes and tasks involving little abstract thinking (Ramaswamy, 2018). In a more and more knowledge-intensive economy, low-skilled workers face various difficulties: since their jobs tend to be repetitive, physically straining, with little intellectual challenges, they might face stress, difficulties in recovery, and even alienation and burnout (Demerouti and Bakker, 2007). Moreover, since their jobs are simple and standardized, they may find it difficult to differentiate themselves in the labour market: they might frequently change jobs, finding it hard to keep one. Thus, a Taylorist organization of work is likely to further cause damage to low-skilled workers, in terms of high levels of stress and strain, possibly leading to burnout. This type of jobs is also associated with a low level of prestige in society, which could make them suffer from social stigma due to their jobs, as we explain following.

Dirty workers: creating a group identity to overcome social stigma

Low-skilled workers' simple, repetitive, non-qualified jobs don't grant them any social prestige: rather, they are likely to suffer from a low reputation in society due to the very nature of their job. It is thus possible to draw a comparison between low-skilled jobs and the case of

"dirty work" – the "tasks and occupations that are likely to be perceived as disgusting or degrading" (Ashforth and Krieber, 1999, p. 413). Dirty works suffer from various types of taint: physical, when workers operate in harmful conditions; social, when working with stigmatized people or in a servile relationship; moral, when they engage in jobs with dubious ethical value or methods. To cope with the negative stigma they are attributed by society, they create strong ties with their co-workers: for them, the collective dimension and the workgroup culture are extremely important. A strong subculture or workgroup culture helps dirty workers balance the weight of the wider culture they are rooted in: their strength lies in the group of peers. In fact, they aim at creating a safe space at work and out of it, through a process of changing perspectives, involving various phases: reframing, recalibrating, refocusing (Ashforth and Kreiner, 1999; Ashforth et al., 2007). This process entails attributing a positive meaning to the stigma or neutralizing its negative connotation, even shifting their focus from the defamed to the neutral aspects of their work (Ashforth and Kreiner, 1999). In this process, individuals feel a strong identification with their role and a sense of belonging to their group. Being part of a group helps individuals to cope with the low reputation of they suffer from: closer social bonds with colleagues constitute a shield against the external judgment (Ashforth and Kreiner, 1999; 2014). Thus, low-skilled workers face several difficulties from various standpoints: instability in their careers and high turnover, low salaries, difficulties in managing their employability and career, low prestige in society due to the nature of their job, and often physically and mentally straining jobs. Their jobs, usually very precise and regulated seem not to leave space for creativity and autonomy. However, even in the strictly regulated working environments inspired by a Taylorist organization, where rules are imposed in a top-down direction, employees can find their own space and room for manoeuvre, as we explain following.

Job crafting low-skilled workers: problematics and research question

As seen earlier, the social regulation theory explains the dynamics of the creation of rules in work context. The setting of rules in a top-down direction from the management to the employees is especially likely to be the case for low-skilled workers whose jobs are clearly defined and precise. The social regulation theory, however, explains how the process of creation of rules can also come from the autonomous regulation: in this case, the rules are created in a bottom-up direction, thanks to employees' initiative.

It is in this sense, then, that we can draw a bridge between the social regulation theory and job crafting. Indeed, job crafting, the literature on job crafting underlines the spontaneous nature of such proactive behaviour, directed at modifying the features of the job. Job crafting is present in any type of job – even the simplest ones and can lead to significant, permanent modifications of one's job. The main dichotomy between the autonomous regulation and job crafting lies in the fact that job crafting is not intended to determine new, formalized rules as it is the case of autonomous regulation, which can be the result of a collective process. Instead, job crafting comes from the individual desire to improve one's job and make it more suitable for oneself: the focus is on the micro-level, individual behaviours. From this point of view, then, we can consider job crafting as a micro-foundation for the autonomous regulation. We can suggest that job crafting can help us observe the individual, spontaneous behaviours that can then be institutionalized and become part of the autonomous regulation presented in the social regulation theory. Job crafting can thus clarify the importance of the individual initiative, distinguishing the actions taken, the actors involved, the rationale behind the activities. In this paper then, we are going to observe job crafting in situations where there's not usually much space for autonomy and personal initiative: for this reason, we will focus on low-skilled workers. For them, the room for manoeuvre is small, and individuals are required to follow a set of rules, decided for them by the management without the possibility to choose how to organize their work. These jobs are also characterized by high levels of interdependencies: one's job crafting activities can impact the colleagues – with positive consequences, such as collaboration and imitation, but possibly even with negative consequences as well, like conflicts or feelings of injustice. Indeed, the literature on job crafting initially focused on manual, simple jobs: for instance, some of the first studies were conducted on the cleaning staff of a hospital and others on the cooks of a restaurant (Wrzevniewski and Dutton, 2001; Berg et al., 2013). For these workers, as they can be compared to the category of dirty workers (Ashforth and Kreiner, 1999), the collective dimension is particularly important, as they strengthen the ties with their colleagues, in response to the lack of value society attributes them. However, to our knowledge, most studies on low-skilled workers have been focusing on the individual aspects of job crafting. In our study, instead, we observe both the individual and the collective dimensions, shedding light on some issues the workers face and how they cope with them. Moreover, we aim at observing the phenomenon of job crafting in its process, considering the very actions and initiatives individuals take to improve their job, to cope with stress, job insecurity, and a low level of skills. Considering the questionings presented above, we can formulate our research question as follows: *how can low-skilled workers individually*

and collectively shape their jobs to face stress and find acknowledgement for their work? How can individual and collective job crafting represent a solution to the top-down direction in the context of a very simple and routinary job?

With our study, we aim at understanding the dynamics of individual and collective job crafting among low-skilled workers, which are their outcomes, and whether job crafting can be helpful to cope with stress, job insecurity, and a low level of skills.

Methodology

To explore the daily activities low-skilled workers engage in, we opted for a qualitative methodology for our study. We wanted to focus on "learning from people" rather than "studying people", as recalled by Spradley (1980, p. 3), discussing ethnography. Thus, the methodology we used was the participant observation (Miles and Huberman, 1994; Spradley, 1980), which allows to focus on people, listening to them, observing their behaviour while being immersed in the same situation – and, therefore, gaining deep understanding on the reasons for their actions and the underlying processes.

The organization chosen for our study is the logistics department of a medium-sized company in the Paris area, France. The data collection took place in two phases, each lasting one week. The first phase was in July 2021 and the second in March 2022. We chose two different periods of observation because they reflect the variations of the workload in the department, which is cyclical. In fact, as the demand increases at the end of each quarter, the months of March, June, October, and December represent some peaks of workload. Other periods, instead, are much calmer. Thus, we could observe the difference between calm and more stressful periods, and assess the influence of stress on employees' behaviour.

The data collection started after a brief reading of the literature and the formulation of a vague research question. Between the two phases of data collection and at the end of the second, various iterations between the literature and the fieldwork were done to make sense of the researcher's observations and get deeper into the analysis. Our study focused on the employees working in the warehouse, whose characteristics reflect the nature of the low-skilled workers: their job is standardized, they own a narrow, not so deep set of skills, the turnover is high, and job security is low. The researcher took part in the various activities with the warehouse workers, rotating among the different jobs, as will be detailed later. The study involved an initial meeting at the headquarters of the company before starting the first week of participant observation, three interviews with the logistics manager at the head of the logistics department,

and two interviews with the HR Business Partner of that department. Moreover, various informal conversations with the logistics manager were rich of insights for the study as well. The interviews were recorded, then systematically transcribed. The other research material collected consists of recordings done during the observations, and the notes systematically taken by the researcher after the daily activities and then transcribed into a journal of the study. The management of the company was aware of the study and agreed to take part in it. However, the warehouse workers weren't told explicitly by the company about it: instead, the researcher was presented as a student doing a short internship to study the jobs in the logistics sector. This would justify her presence for a brief period of time and the questions she would ask to the workers. Hence, the research was carried out in a covert manner (Spiker, 2011): despite the ethical concerns on the transparency of the research, this solution seemed appropriate. In fact, according to the management, making the workers aware of the study wouldn't have guaranteed their collaboration. On the contrary, they'd had felt uncomfortable with interviews or focus groups, or being aware of the presence of a researcher observing them for a study, as claimed in the discussions on covert research (Spiker, 2011). Moreover, coherently with Roulet and colleagues (2017) the participant observation allowed not only to interact with the employees in a natural, spontaneous way, but also to gain a first-hand experience with the job. Instead, entering the group as a curious person, motivated to learn about their job with the goal of starting to work in the same sector, made employees more open and welcoming: they explained the features of the job to the researcher very warmly and friendly, and opened up about the job crafting activities they more or less knowingly carry out. Moreover, collaborating with them and chatting in an informal way allowed us to grasp many details about the interactions within the group, with the middle manager, and with the management of the company. The researcher collaborated with various workers, both contributing to their tasks or assisting them (for example, in phone calls in the office), naively asking questions on the content of the job, on why they acted in one way or another, on their feelings about their work and the company, and chatting with them. During the study, ethical concerns were present for the researcher, due to the fact that she had to conceal her real work and the reason why she was in the company.

Context of the study

The organization studied is a fast-growing medium company, in the retail-tech sector. It employs around 550 employees worldwide and has offices in 16 locations, with customers in more than 60 countries. In our study, the focus was on the warehouse workers in a hub

dedicated to the sorting of products arriving from the production plants, to be sent to customers in France and abroad. Fifteen people work in the hub as warehouse workers, in the reception of products, in the planning and preparation of packages and pallets, in the contact with customers, the preparation of the documents for the shipment and their tracking. The logistics hub is detached from the headquarters of the company, located in another area in the Paris region: consequently, employees occasionally feel somehow "neglected" by the executives. In the logistics hub, various functions are present: the employees of the logistics department and the logistics manager, the maintenance service to repair defective products, a technical office to configure some specific products. Our focus is on the warehouse workers, as they reflect the features of the low-skilled workers.

The warehouse is organized around three main working areas: the reception of products, the preparation of the documents and the preparation of the goods in packages and pallets for the shipment. At first, products are received, registered in the IT system of the company, and are then stocked in the warehouse, according to the space available. These tasks are carried out by three employees working both in the office and in the warehouse. They need to be physically active to move the products, sometimes in heavy packages, to clean the floor and to unload the area of bulky packages. Moreover, they need basic IT competences to properly use the software and update the quantities of stocks. They also need good relational skills to deal with the truck drivers delivering the products, and with the colleagues in other departments in case problems arise. Secondly, the warehouse office manages the organization and planning of shipments, according to the requirements of customers, the availability of products in stock, managing eventual issues with the conveyor. The three employees working there take care as well of the bureaucratic side concerning the shipment. The middle manager, Pierre *[fictitious name]*, works in the office too, as is in charge of the shipments and the management of the warehouse. He plays a vital role in motivating employees and maintaining a good climate in the warehouse. He acts somehow like a father, as he's older than most of the warehouse workers and has been in the company for many years. While in the office people need to be less physically active, they need to use IT competences in a more advanced way, as well as relational skills. Third, the preparation of the shipment: employees pick the products in the warehouse, scan them with their pad to notifying this in the IT system, pack the goods, and check that the shipment content is correct. In this area, 2 workers are in charge to prepare big shipments, four to prepare the big shipments, and one of them is in charge of packing. To carry out their job, it is essential for them to be healthy and in good physical shape. The other competences are less important, but they need basic IT skills to use their pad or the PC to update the quantities of goods in the

stock. Also, relational skills are relevant to them: they have to maintain good relations with colleagues, as they work in close contact with each other every day. A good climate in the workplace is an important component of their wellbeing.

As demand by customers is cyclical, with some peak periods followed by calm ones, the pace at which employees work varies accordingly: they report experiencing various levels of stress. When demand is particularly high, and shipments must be prepared more urgently, the employees in the warehouse may not be able to face all the workload: in this case, some temporary workers are hired, and sometimes they can remain as permanent employees after the peak period. However, as the logistics manager explained, many improvements have been made in the shipment planning, to smooth the demand and avoid extremely high peaks. This helps the company not only to lower the levels of stress on employees, but also to smooth the volumes of production throughout the year. These jobs are routinary: they don't require a high level of competences, and there's abundant manpower in the job market. The turnover is usually high in this sector, as workers are always looking for the employer offering the best conditions. These workers don't have many possibilities to advance in their career: rather, they feel the risk of seeing their job more and more "de-humanized" due to technological innovations that aim for efficiency – such as, for instance, headsets that provide automated voice directions. In the companies examined, however, the employees tend to remain in the company for a long time, and to be attached to the team and to the firm. In fact, the working conditions they have are in general better than the average: since logistics is an important area, but not the core business of their company, they don't feel as much stress for the results as in other companies. Moreover, their shifts are in standard working hours and regular ones, and they can benefit from a heated warehouse during the winter and climatization in the summer, which is often not the case among competitors.

Certainly, the logistics manager plays an important role in motivating them: every week, he shares data on the performance of the team and on the future plans. Employees give a higher value to the good atmosphere at work and the human contacts that characterize the company's culture: for this, they are willing to accept salaries that might be lower than competitors. Indeed, they appreciate their job and value the social ties that are present at work.

Results

The presentation of the results will highlight the main job crafting activities, the reasons why employees engaged in it, the main consequences of such actions on the group and on the firm.

To protect individuals' privacy, all their names have been changed: we will refer only to the fictitious names.

When the researcher started working in the organization, in July 2021, the atmosphere was calm and relaxed, right after the peak period at the end of the semester. She was warmly welcomed by the employees, who showed curiosity, openness, and enthusiasm in showing her the details of their job. Employees were chatting informally with each other and giggling and making jokes while working. Although the atmosphere was serene, the job itself proved to be hard: for example, the workers in charge of the reception start unloading the trucks arriving at 7.30, unpacking heavy cartons and packages. They had to hurry to avoid the accumulation of packages at the entrance of the warehouse. Other workers, instead, have to prepare big and small shipments: they walk around the warehouse for the whole day, lifting heavy packages, retrieving products in uncomfortable positions – very high or low – and placing them on pallets efficiently. If the products are placed in a messy way, they have to look for what they need throughout the warehouse. The pace of work is marked by mid-morning, lunch and mid-afternoon breaks, planned according to the arrival or departure of products with couriers.

The HR Business Partner, in an interview, underlines this point:

"Their activities are very cadenced by the arrival of the couriers, so that Pierre [the middle manager] must organize the activities in this way, and leaves them a bit more flexibility in the end of the afternoon. […] They don't have much freedom to decide their tasks, but their job is somehow light. Of course, they have to remain serious and concentrated, but they can chat and giggle – they even turn on the music while working sometimes. This is something that is not done at all in other firms: there, employees have vocal commands guiding them to pick the objects. At least, here it's a manual job, their minds are free."

Individual job crafting and consequences on colleagues

In this context, it wasn't surprising to find out that job crafting is largely present: employees change the way they work in various ways. In fact, one of the workers explained on the very first hour of work:

"I will teach you how we prepare shipments, but I will show you how I do it myself: I prefer working in my own way – I think it's better."

In particular, employees engage in job crafting both with approach and avoidance attitudes; job crafting can take behavioural and cognitive forms. Also, some differences are noticed between the two periods observed. First, employees tend to avoid the more straining tasks when they are tired, postponing some tasks. For example, one of these episodes when the researcher was

working with François one warm day in July: they were both tired, the safety shoes they had to wear seemed even heavier than usual, and they were just looking forward to lunchtime. However, they should start preparing a big shipment due the next day. François avoids doing it, hoping that one of his colleagues would pick it up.

"Listen, I think we can leave this one to Michel [his colleague], can't we? We have already done this big one and soon it'll be time for the lunchbreak…we'll see this afternoon what to do, right?"

He thus focuses on easier tasks such as smaller shipments or cleaning the floor. However, this avoidance attitude directed at reducing demands is possible only outside peak periods, when employees have the time to carry out their tasks and can afford to let some tasks take more time than needed. Instead, when the pace must be faster, workers do not waste precious time, but try to aim for efficiency as much as possible, as the researcher witnessed in the second period of observations, in March 2022. In fact, in peak periods, people show an approach attitude, they tend to be more proactive and willing to help their colleagues, changing the usual way of doing and innovating: they improve their processes thanks to the increase in the structural job resources. For instance, one of the employees, Charles started marking the items in the shipment to help his colleague who had to check that it was correct. As he was asked what he was doing, he explained:

"Look, I am marking the label of the product with the pink marker, then I also highlight it in pink on the list. Then I will pick another colour for another item and so on. So, it'll be easier for François [his colleague] to check that everything is correct."

"And do you all do this? Is it a rule?"

"Well, I can't say it's really a rule…nobody told me to do it. It was François who started doing it…he started marking the items with a coloured marker when we were all busy and it was easier to find out the items to check…so I started doing the same for him, and the others [the colleagues who are in charge of preparing smaller packages] did it too. Finally, Pierre said it was a good idea, and he told us all to do it"

This small innovation helped improve the efficiency of the workers, to the point that it became a formalized innovation in the process of checking shipments, thanks to the approval of the middle manager. Not only, but employees also perceived themselves as more useful and helpful for the others: they felt they could bring a more valuable and meaningful contribution to the team, thanks to their jobs.

Another case of a similar innovation that was integrated as part of the process came from another employee, in charge of preparing small shipments: to inform the colleagues that some packages had already been checked, he started signalling it by marking the boxes with his initials. In this way, the co-workers knew that they could avoid checking them again.

Even simple innovations in the process of final check demonstrated how approach job crafting can be helpful for the employees and for the organization: the increase in efficiency improves the output for the company, but at the same time empowers employees. In fact, they not only are aware of the better performances, but they also feel the importance of their contribution and increase their sense of meaning, thanks to a process of cognitive crafting.

Feeling like dirty workers and the value of social ties by increasing social resources

The employees in the warehouse share some traits with the "dirty workers": they are aware that their job doesn't have a positive connotation in society, because it's simple and doesn't grant workers any prestige or social status. Therefore, we can observe employees reframe their perception about their job and identify with their role, engaging in cognitive crafting. Moreover, they attribute a high importance to the group and the collective dimension of their job. Employees value social ties: they appreciate the friendly atmosphere in the warehouse, and increase the social bonds with their colleagues, directing their job crafting behaviours in an approach attitude towards co-workers.

From the notes: "*People are constantly making jokes and giggling at work, they appreciate being with each other and being part of a team. While preparing a shipment with him, I asked François what he likes in his job, and he said: "The best part of my job is being here with the guys: we're like a family and the time at work goes by faster". I replied: "Indeed, I've noticed you're a very good group", and he continued: "Oh yes, yes. Well, we don't have any problem in telling each other if something is wrong, eh? We have some discussions at times, but we know we can count on each other, this is the most important thing to me".*

The logistics manager is well aware of this closeness of the employees and is convinced of its effectiveness:

"There's the spirit of the team, and at the same time, there are tensions. You know, it's a small team, it's almost like a family. They're not like strangers, they all have relationships with each other, because they see each other everyday. Since several years, there's a relationship of affection among them that has created a situation for which they are supportive and help each other. I think this is important. Also, this job requires to be versatile, differently from Amazon. If you are an order picker, you'll have to prepare shipments too, and it can change a bit. The

variety of products is really wide – and there are some problems of rigor in the stocks – but it requires to be flexible, to adapt to the various orders, to how to prepare them. If there are delays in the small orders, those in charge of the big ones can help, and vice versa: there's this spirit of solidarity, of mutual help. They will help each other, and they are happy to do so, because they can change a bit their job and rotating is not so bad. Also, they are autonomous in managing this, with Pierre's coordination, if need be"

They even spend time together outside the working hours, for instance, playing football matches during the lunch break or organizing barbecues together in the summer. Workers appreciate and give value to the atmosphere in the company, because they are aware that it can be different doing the same job in other companies: there, employees are not allowed to talk with colleagues or make jokes, to avoid wasting time.

As François *(fictitious name)* told me while the researcher was helping him preparing a shipment:

"Before joining the company, I have worked at the Louis Vuitton warehouse, and at the Amazon hub, really close to here. I have worked for other companies too, even with a temporary contract. But it's now almost eight years that I've been here, and I haven't left yet. Indeed, here we're not so bad […] Also, there you have no time to chat, you have to run and be quick all the time, while here I like talking to the guys, we have a 10-minute break in the morning and in the afternoon. Work is work, it's not fun – but after all here it's not so bad."

However, during peak periods, when it's necessary to work really hard and there's more urgency, employees know that they have to be quicker and there's not much time to stop and chat. Workers motivate each other and make some jokes to maintain a serene atmosphere to cope with the hard work.

Not only the behavioural dimension is important, though: cognitive crafting is present and essential as well. In fact, employees are strongly attached to the company and perceive the team as a family. They understand that their efficiency is crucial, as delivering the correct orders fast to the customers and taking care of the customers are key success factors for the company. This helps them feel that their contribution is meaningful, that they are helping the team and the company to improve. For instance, employees are motivated to beat the record of shipment in the peak periods, being aware of the impact on the company.

For instance, the notes during the second period of observation, March 2022, report:

Charles: "Come on guys, we still have to finish this whole lot of work today, we need to make it quick to leave on time, so let's keep going!"

Jean "Yeah you're right but we have already done so much this week."

Charles: "So we're going to beat last year's record!" [the record of shipped packages was set in the winter 2021]

Jean: "Indeed, that was cool, eh?"

The logistics manager plays a key role in motivating the team, sharing data each week on performance, the objective reached and the next ones: when a leader can effectively communicate with employees, being supportive and transparent, they can gain employees' trust. The HR Business Partner confirms the attachment to the company, and underlines that, thanks to the better working conditions the firm has set up, the level of stress is quite low. In fact, the firm has been generous in putting employees in the best possible working conditions for the employees. Being the company medium-sized, it pays attention to the human dimension of work.

Job crafting during tough times: optimization of demands, increase of prosocial behaviours

As already mentioned above, the peak periods are really peculiar: job crafting could have unintended consequences on colleagues and could even lead to conflicts, especially when someone tries to avoid tasks that have to be done anyway. However, in such periods, we observed an increase in prosocial behaviours: employees tend to be more helpful towards their colleagues, even if this implied a higher workload for them. For example, the researcher noticed that Michel was preparing a big shipment, and noticed he spread the items in numerous pallets, occupying a lot of space. When asked why he was doing so, he answered to clarify why he was doing so:

"Michel, what are you doing? Why are all these pallets everywhere?"

"This is a big shipment, eh? I've been working on it since yesterday afternoon, I've been fast!"

"Indeed!"

"Now, Jean will have to count everything to check it's right, but if I pack everything well it'll be hard for him"

"Won't it make it a lot of work more for you?"

"Yes, yes. I'll have to pack this is again to send it, and it's heavy stuff, you see? But I'd rather help Jean and work more if I want to do things right: what matters here is the quality of what we do"

This practice is diffused among the employees, who work harder to assist a colleague and contribute maintaining a good organizational climate. This attitude entails not only an increase in social resources thanks to the prosocial behaviour, but also a spontaneous increase in job demands. In tough moments, though, employees not only increase job demands: they also

increase their social resources. In fact, they communicate more effectively, improving their efficiency, but also keeping a high level of motivation among colleagues. As we'll discuss later, this results in an optimization of job demands and job resources, driven by prosocial intentions. Thus, since the employees benefit from the colleagues' job crafting activities, they tend to take example and reciprocate this behaviour: this results in a virtuous cycle. The organization of work in the warehouse involves sequential interdependencies: since one's job influences the one of the colleagues downstream in the process, the workers pay attention to be precise. When someone doesn't stick to the process, the colleagues remark this and directly tell them to stop or report this to the middle manager.

François, pointing at an empty space in the warehouse: *"You see? We were supposed to pick the [item produced] from this position, but someone else picked them from here. Here it's easier, it's not up where there's the rest of the stock. They should have taken this from up there, because the pad told them to do so but they didn't do what they were supposed to. And now it's me who have to go and look for this item. I will have to report this to Pierre when the others just do what they want because they're late or they are lazy to do things accurately"*

Tough times can involve also a moment of change, which employees might find difficult to accept and implement, sometimes with difficulties in actually changing their behaviour. In this case, when moments of instability and lack of clarity happen, the attachment to the firm proved to be a strong help. As the logistics manager reported in an interview:

"I think they have a very strong attachment to the company. We have recently implemented SAP, and the situation was very chaotic because the length of the implementation project was extremely short. It had to be launched and it was launched. There were many things that didn't work and everyone worked hard to make it work, to be still able to send the shipments. So, I think that there really is this strong attachment to the company and the willingness to make it work, and it is effective."

The role of the middle manager

The role of the middle manager, Pierre is particularly important in the warehouse: older than the others, he has been in the organization for more than ten years and has been part of the company's evolution. His role is to coordinate the operations in the warehouse, to plan for the preparation of the shipment, to take care of bureaucratic duties for some customers. He's a trusted reference point for the workers: he's able to connect the directions coming from the logistics manager to the workers, operationalizing them. His good results in managing employees and maintaining a positive organizational climate come from the ability to leave the

employees room for manoeuvre to manage their work by themselves, while being careful that they remain rigorous, precise, coping with the demands.

As the HR Business Partner highlights:

"The great subtlety of Pierre's job is to let them talk without it getting out of hand. They have to be concentrated even if they are talking, but up to a certain point, otherwise their productivity declines. And if they are not productive enough throughout the year, the orders decline. So they have to gauge each other correctly: they have to be sufficiently efficient and concentrated, without avoiding to talk and joke, as it relieves stress. And Pierre's role is this: to help them find a balance."

For example, the friendly and relaxed atmosphere may sometimes result in an excessive "playfulness": if this happens, he can recall the workers to be fast, respect the security norms and do their job properly.

The HR Business Partner, aware of this behaviour, confirms this impression in an interview, underlining the attitude of mutual trust between Pierre and the other employees:

"I think that the perception of being autonomous in their job plays an important role: they are let some flexibility by Pierre. Of course, they have to respect the slots for the pauses etc., but they are granted some flexibility if they have to arrive later or finishing earlier. Pierre has based their relationships on trust, but if the employees exaggerate, he goes back to a much stricter organization of work".

The role of the organization

Since the beginning of the study, it clearly appeared that the organizational climate is good and friendly. The organization is shaped around a culture of trust, of support for its employees, granting them better working conditions with respect to competitors, taking care of their wellbeing and making them feel involved in the company.

As proof that employees feel good, the turnover rate is low, which is quite unusual in this sector, as underlined by the HR Business Partner:

"I think that our low turnover rate reveals the affection and attachment they have towards the company. Clearly, differently than for white collars, for these workers the salary is a key point, since it's generally lower than for other roles. Hence, usually there are more problems related to the presence of primes, and there can be issues of absenteeism, as these jobs require a quite important physical effort. Here, this isn't an important problem"

The logistics manager shares these values and shows them when dealing with employees: he encourages them in their work and holds a weekly meeting in which he shares data on how the

work is going and how the next period will look like. Knowing these information motivates the employees and makes them feel their role in the company is important. Moreover, the logistics manager has set up various improvements in the processes in the warehouse.

"We see a firm that has been growing rapidly, where many things are carried out by hand. I come from a more industrialized reality, and since I am here [a bit more than one year] I have started setting up some indicators and KPIs. I have also worked with Pierre on the practices to extract all the orders to prepare and to prioritise the ones with the closest deadlines. [...] also, I try to give them more visibility, more awareness on what they do, to show them indicators or results, and to give them a method to work better and more effectively. Something I am fighting for is the fact that things are put in two positions, and they pick the one in the wrong place because it's easier for them, but this displaces the quantities in the stock. They need the product and pick it, and that's ok, but then I have wrong values in the stocks in various positions"

With respect to the job crafting activities that employees engage in, both the logistics manager and the middle manager acknowledge its importance for the wellbeing of the workers, to cope with the high level of stress and the risk of alienation. Moreover, they encourage innovations in processes, as it is clear to them that small adjustments can improve efficiency. However, they pay a lot of attention to the IT system and to the safety rules: the respect of the practices is essential in those cases – on the one hand, to avoid wasting time to solve problems caused by non-authorized initiatives, and on the other hand to prevent any health issue from happening.

"Sometimes, their way of working is not what I need: they have to follow the processes so that I can plan for the activity, manage the stock, and use the tools and software as they are supposed to. Without this adherence to the process, we don't have any more the good information regarding the stocks, and makes it difficult to manage the logistics processes. I have recommended them to be rigorous and pay attention to this. [...] There's still a lot to do, but, after some months of adjustments, the adoption of SAP starts to work well and we have done considerable improvements. They still have to learn to be rigorous sometimes, although we're starting to have standard practices, as a normal warehouse should work."

Therefore, it emerges how important organisational support is to help employees crafting their jobs with positive impacts on themselves, the colleagues, and the organization.

Discussion and conclusion

As our findings show, low-skilled workers, who share several traits with the dirty workers, experience straining jobs and unstable careers. They can cope with the hard working conditions thanks to job crafting, optimizing their job demands, increasing their social resources, and engaging in a cognitive reframing of their perceptions and feelings towards their job.

Not only, but the collective dimension of their job is given a strong importance: employees are close to each other and give a high importance to the team. They are willing to help each other both in calm and more stressful periods, engaging in prosocial behaviours. Moreover, they feel a strong attachment to the company, in which they can find a familiar dimension and the attention to the human connection, quite differently from similar jobs in other companies.

Thus, with a supportive company and an organization of work that allows them to maintain some autonomy and room for manoeuvre to engage in job crafting, employees can optimize their job and contribute to progress and innovations, while maintaining their engagement and motivation.

Our findings thus allow us to make important contributions to the literature of job crafting. We highlight the positive consequences of job crafting in tough times, such as the increase in prosocial behaviour, the increase in work engagement among low-skilled workers. Moreover, we show how this can be achieved through an optimization of job resources, rather than a mere reduction of resources.

Our findings can be interpreted according to the theory of the social regulation by the French sociologist Jean Daniel Raynaud (1979; 1988; 2003), explaining how granting autonomy to workers in particularly rigid working environments can indeed be virtuous both for the individuals and for the company, in that it fosters innovation in processes and avoids problems. We can thus present a bridge between the micro-level job crafting behaviours and the sociological theory of the joint regulation. Our qualitative methodology allows us to gather richness in details and nuances, gaining understanding on the reasons for employees' behaviours.

Building a bridge: job crafting and social regulation theory

The observations conducted in our study led us to shed light on the process of regulation that is present in the warehouse. In particular, we could notice both the control regulation and the autonomous regulation are present and examine how they interact. Thus, we examine employees' behaviours: indeed, we argue that job crafting can be seen as a micro-foundation

of the autonomous regulation. Individuals exploit their (small) room for manoeuvre to manage the job demands and job resources or to change their perception of the job to make it suit better to themselves. In fact, it is in the small, spontaneous, changes individuals bring to their job that new routines and practices can be created. When employees craft their job, they go beyond their formal job description: for instance, by avoiding some tasks, or changing the way tasks should be done (Wrzesniewski and Dutton, 2001; Tims and Bakker, 2010). When they change their way of carrying out their work, individuals can improve their efficiency and effectiveness, bringing some innovations in the processes. Their behaviours can be then imitated by colleagues, and, formally or informally, they can be implemented as a new way of working (Tims and Parker, 2020). Therefore, the autonomous regulation (Reynaud, 1979) can be enacted by job crafting, even though its primary goal is directed at improving how individuals relate to their job and the way they can cope with it. The new ways of working spontaneously generated, in a bottom-up fashion thanks to job crafting, might be different from the formal, top-down rules dictated by the management. The joint regulation that allows to make the top-down and the bottom-up approach interact, results then in finding a balance between these two approaches. We can thus approach the framework of job crafting to the theory of social regulation (Reynaud, 1997): indeed, job crafting can be seen as the starting point to explain the generation of autonomous regulation. It's important to point out that job crafting doesn't entail conflict per se: as an autonomous, proactive behaviour it doesn't happen as a solution to a conflict, but as a desire of the individual to make their job suit better to himself, increase their work engagement and motivation (Wrzesniewski and Dutton, 2001; Tims and Bakker, 2010). The social regulation theory (Reynaud, 1988; 1997), though, acknowledges the importance of the feeling of reciprocity for those who have to respect the rules: they are allowed, within the rules, to change it, and this happens through job crafting. Thus, the joint regulation, conciliating bottom-up and top-down forms of management can be helpful for management, in that it allows to give more responsibility to the individuals, making sure, at the same time, that they don't go too far in modifying their job. When individuals are let the possibility to manage the room for manoeuvre they have, they can increase innovation and gaining in work engagement and attachment to their job: job crafting can thus be interpreted as a practical way in which the autonomous regulation is set up.

Job crafting: a reunification perspective

Thanks to our observations, we could notice how the Job Demand-Resource model (Demerouti, 2014; Bakker and Demerouti, 2017) provides a good explanation as for how individuals can

cope with high levels of stress, repetitive tasks, little possibilities for professional growth, physical strain. In fact, job crafting is largely present among low-skilled workers, with modest job security in a depersonalizing job market. Through job crafting, a motivational process starts and allows employees to find a higher level of engagement at work (Tims and Bakker, 2010). Our study contributes to showing with a qualitative methodology how health impairments due to stress and lack of recovery can be prevented by regulating job demands and job resources through job crafting (Bakker and Demerouti, 2017). Moreover, we contribute to the stream of literature on a comprehensive approach to job crafting, following Bruning and Campion (2018), and Zhang and Parker (2019), who underline the importance of reconciliating the role-based perspective (Wrzesniewski and Dutton, 2001) and the job demand-resource view of job crafting (Tims and Bakker, 2010). In fact, their main argument is that the cognitive dimension can't be separated from the activities regulating job demands and job resources – rather, it's often the trigger for engaging in such behaviours (Zhang and Parker, 2019; Bruning and Campion, 2018). In our study, we show how the feeling of being part of a team, of being valued for the initiative taken in modifying the job, helps employees give meaning to their job and feel attached to it. Thus, a cognitive process, similar to the one individuated by Ashforth and colleagues (1999; 2007) including the phases of "reframing, recalibrating, refocusing", increases the feeling of attachment to the team and to the organization: it seems to be the trigger for behaviours directed at modifying one's job through job crafting. More specifically, it can foster behaviours that help to optimize processes, and have a prosocial goal – which is coherent with the strong attachment to the team they perceive.

Job crafting and innovation

Being satisfied and feeling that their job fits well with oneself stimulate people to improve how they work: job crafting leads to improvements in employees' performance (Lee and Lee, 2018; Bakker, Tims, and Derks, 2012; Weseler and Niessen, 2016). Not only, but job crafting is also related to innovation: when changing the way tasks are carried out, employees can aim for efficiency and output maximization, in an approach attitude (Bruning and Campion, 2018). Therefore, employees' proactive behaviour can be connected to innovativeness and to an improvement in performing tasks: we give evidence of this in a qualitative way, and we show that processes can be improved thanks to workers' initiative. Our findings are consistent with Bindl and colleagues (2019), who show that job crafting can lead to innovative work behaviours both in promotion- and prevention-oriented forms. Moreover, in our study it emerges how people can avoid alienation by taking action and showing proactivity and

ownership of the job. In fact, an approach-attitude is related to a higher work engagement. This is a crucial element to lower turnover, which is a main concern among low-skilled workers. We can thus talk about optimization of demands, rather than simply reduction of hindering demands and increase in challenging demands, as we discuss in the following paragraph.

Job crafting: optimization of demands, increase in job resources

Our study is coherent with the perspective proposed by Zhang and Parker (2022): rather than simply avoiding demands, the job crafting process aims at optimizing resources to improve efficiency and avoid the hindering tasks. Also, workers wish to increase both structural and personal job resources. Thus, if employees are more result-oriented, they tend to engage in job crafting not only to lower strain, but also to be more efficient and effective. A supportive organization facilitates this approach, caring about employees, being concerned about their wellbeing and motivation. The attitude directed at optimization of resources can be observed when employees increase at the same time their workload, which can be straining, and their social resources – thus, creating a compensation: they need to put a higher level of effort in their tasks but benefit from higher social support. In this regard, we contribute to the literature on job crafting by empirically confirming the findings of the experimental research by Zhang and Parker (2022) on optimization of resources.

Job crafting and prosocial behaviours in tough times

Coherently with Wang and colleagues' study (2018), we noticed some differences between the two periods observed: especially, we found an increase in prosocial behaviours and work attachment in the tougher period. First, if some individuals sometimes tried to avoid the most hindering tasks during the quiet period, this didn't happen in the most stressful one. Rather, the increase in workload implied an increase in the social resources from employees: they interacted much more intensely to motivate and support each other more. This increase in social resources can be explained by the attachment to the team and to the work (Ashforth and Kreiner, 1999; Yip et al., 2018; Meyer, Becker, & Van Dick, 2006; Pierce, Jussila, & Cummings, 2009). In accordance with Wang and colleagues (2018), employees can develop work attachment as a consequence of the features of their job – such as the degree of control they have on their job, and of the presence of challenges at work. Job crafting allows individuals to gain more control over their work and over the outcome of their actions, therefore it fosters work attachment (Wang et al., 2018). For this reason, employees can increase their workload even more during the peak periods in production. Moreover, we noticed an increase in prosocial

behaviours during the peak periods: this sounds quite counterintuitive. In fact, the previous literature on job crafting underlined that when the workload increases and employees craft their job, conflicts with colleagues can be present (Tims et al., 2015; Tims and Parker, 2020). Also, when the workload increases, it would be easier to let some activities down and avoiding them. Instead, if employees act towards an optimization of resources – increasing efficiency and productivity together with their social resources. Thus, the attachment to their group and identification in the team is a key point to explain the prosocial behaviour in these situations: employees feel they belong to the group and increase their own workload, if needed, to help colleagues or to maximize the output of the team as a whole. Hence, job crafting can be carried out not only to increase person-job fit, but also with a prosocial intention. The advantage of such behaviour goes to the co-workers who benefit from a lower workload and from the support from the crafter. The individual crafting the job bears a higher workload, but also contributes to a better organizational climate, increased trust from colleagues, and team cohesiveness. Also, he or she can think that co-workers will help him in the same way later.

We contribute to the literature on the impact of job crafting on co-workers, following the model proposed by Tims and Parker (2020), and providing empirical validation. In fact, if the prosocial intention is clear for the colleagues, they appreciate the support coming from the job crafter, encouraging his actions. Moreover, thanks to the positive impact of job crafting, this behaviour is imitated by colleagues, as found by Bakker and colleagues (2016). We can thus contribute to the literature on job crafting, claiming that the prosocial intention as a rationale for job crafting has positive consequences on the crafter and the co-workers, in terms of lower workload and higher support for the co-worker. This can also trigger the feeling of contributing to a better organizational climate and to maximization of productivity for the job crafter. Such positive consequences stimulate an imitation effect: the prosocial intention is shared among cohesive groups and transmitted.

The importance of organizational support: towards a sustainable HRM?
In our study, we show the importance of job crafting among low-skilled workers – in terms of fostering prosocial behaviours and innovation, but also to increase attachment to the job. For this, the organization plays an important role in providing support to the workers: when employees perceive organizational support, they tend to engage in job crafting more, and to find a higher job satisfaction and fit with the organization. Thus, organizational support, as confirmed by previous studies as well (Kim et al., 2018; Demerouti, 2014; Cheng et al., 2016), is extremely important for the effectiveness of job crafting; it allows to empower even low-

skilled workers, when they feel they have the room for manoeuvre to manage their job. By feeling they are given importance by the company, they can change their perception of the work, optimize the job demands, increase the job resources. The support of the organization can open avenues to make even low-level jobs more tolerable and meaningful for workers, with positive outcomes for the firm and the employees. Such an approach could then move towards a more sustainable approach to human resource management.

Part 3. Discussion and Conclusion

Discussion and Conclusion

Chapter Overview

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Chapter Overview

In this chapter, we will present the discussion of our results and the contributions brought to the literature of sustainable employability and to the job crafting literature.

We will start by introducing a synthesis of the results, summing up the main findings for each of our research papers. Then, we will discuss the contributions brought to the theoretical framework of sustainable employability, showing how job crafting is indeed an effective way to develop sustainable employability. We underline the fact that the sustainable employability model is an integrative one, that allows to reconcile the perspective of the employers and the employees. We will discuss the conditions for the creation of employability, such as psychological safety and an enabling environment that leads to competence development. We will also present the contributions we bring to the field of job crafting, highlighting that job crafting contributes to find meaning in one's work, and can allow to foster innovation, well-being and engagement for employees at different levels. We will present as well our methodology contributions and we will conclude the thesis advocating for a sustainable approach to careers and human resource management.

1. Synthesis of the results

Our dissertation includes large questionings about the evolving world of work. In an environment constantly changing, it is more and more difficult for individuals to find certainty and stability in their careers. They are asked to evolve, change, and adapt to new, different jobs: to do that, they have to be able to learn throughout all their working life, maintaining a curious, open mind and being able to seize the good opportunities to improve their working condition and career.

Moreover, the increased uncertainty in the world of work makes it difficult for people to plan for their future and their career. Indeed, the traditional psychological contract between employers and employees has been substituted by a "new psychological contract": employers can't guarantee an employment to the workers for all their career, but they can support them in maintaining their employability – the possibility for them to find a job in the labour market (Forrier and Sels, 2003).

Our analysis therefore is focused on employability, aiming at understanding whether it is possible for employees to have a satisfying career and achieving something valuable for them, remaining employable and at the same time safeguarding their health and well-being and feeling realized both in their personal and in their professional life.

The main, general questions of our thesis, concerned how to make it possible for people to be more satisfied at work and to build a fulfilling career in the long term while maintaining and developing their employability.

In our analysis of the literature, we could observe how the common understanding of employability often involves a negative, reactive connotation. Employability seems to be perceived as a problem for employees, as an individual trait that is hard to develop and maintain. However, it is necessary to be employable to be ready to face the adversities that could happen during one's career—for instance, being ready to handle layoffs, pivoting jobs, dealing with personal or professional crises, and changes that one could have to face.

Yet, this view of employability is quite reductive. Indeed, the framework of sustainable employability offers a different perspective, arguing that it is possible to include the achievement of valuable contributions together with maintaining health, employability, good performances, and satisfaction through time. The central proposition of the framework is the possibility for individuals to actually be able to last in the long term, preserving physical and mental health.

Our main question is therefore directed at understanding: can sustainable employability be built effectively? And how should sustainable employability be built?

To explore these questions, we articulated three different research questions, which we explored in three papers.

The central premise of our argument is that the organisation of work has the potential to facilitate a transition for employees from input-oriented tasks to a focus on their capabilities. This shift can enable them to make valuable contributions and achieve personal development. External situations and conditions play a significant role in enabling employees to realise their capabilities, consequently enhancing and influencing their work output. To attain this goal, it is crucial to establish the organisation of work effectively. It is crucial to provide employees with sufficient autonomy to decide on their work organisation, taking into account their distinctive characteristics.

The thesis has the goal of investigating the degree to which job crafting may be regarded as a work conversion factor that contributes to sustainable employability. In other words, our objective is to explore the potential impact of job crafting on the development of sustainable employability and the mechanisms through which it could happen.

The focus of our research was directed towards three distinct themes.

1.1. Summary of the Results

1.1.1. Paper 1 – The Shape of hybrid jobs

The initial stage towards achieving sustainable employability for an individual is to possess the necessary qualifications and skills that make them employable. In light of global changes, questions have risen regarding the means by which individuals may remain appealing to employers among the pressure of continuous change, whilst simultaneously attaining satisfaction in their occupation. In order to perform effectively, employees are required to tackle intricate problems and utilise diverse skill sets. Our first study, titled *The Shape of Hybrid Jobs* (Gianecchini et al., 2019), aims to investigate the phenomenon of job requirements evolving over time, necessitating individuals to employ a combination of diverse skill sets to perform optimally. In such hybrid jobs, employees are expected to address complex issues by utilising a range of skills. The study seeks to examine how evolving job requirements require the integration of varied skill sets. This study employs the T-shaped professionals' framework to investigate the varied job demands that require the application of multiple skill sets for achieving optimal job performance. Therefore, our objective is to understand the potential existence of distinct occupational roles based on the nature and extent of specialised abilities required. The aim of this research is to investigate the presence of individual or organisational attributes that impact the likelihood of an employee being solicited to augment their specialisation or broaden their skill repertoire.

Thanks to our study, we could confirm that individuals can thrive in the present moment and need to get ready for the future ones; for this, they have to develop a set of competencies that are required in the job market. However, a single, deep specialisation is often not enough; combining different sets of competences is more and more required. Employees should be flexible enough to be ready to acquire different skills, preparing for the future on the one hand and enriching their starting knowledge and abilities on the other. Moreover, various combinations of competences exist, and they are associated with different personal and professional profiles. The different shapes of jobs that emerge from our analysis are connected to the person's level of education, the function occupied in the firm, and the industry considered.

From our analysis, it emerges that the most vulnerable workers are those who have a Pi-shaped form with a low level of specialisation in two areas of competence. To avoid being in a difficult situation from the point of view of their employability, they should make sure they can improve their specialisation, deepening their level of competence in at least one area.

Our study underlines how, to manage to thrive in an evolving work environment, it is important to develop different types of competences and be able to evolve by deepening or enlarging the set of competences one has. Thanks to our study, we show how different sets of competences can be articulated in various ways for different people. Therefore, the content of the jobs is more and more often encapsulating several different types of competences. In this case, the employees should be offered the opportunity to acquire those sets of competencies. In this way, they could increase their employability and be more useful for the organisation by being able to mix more sets of competences. This could be especially relevant for the learning and development planning of organisations: integrating the need for employees to gain new competences on the job would require investments in them, but also advantages in terms of the employees' specialisation.

1.1.2. Paper 2 - Don't let me down! Job and career crafting for sustainable employability

The following research paper is titled *Don't let me down! Job and career crafting for sustainable employability*. We conducted this research by interviewing people with different jobs, working in a physics lab, to understand to what extent job and career crafting were present and with what impacts. We were interested in exploring whether and how job and career crafting could be enacted with the goal of building sustainable employability. Therefore, we examined how individuals could modify their job to align with their personal needs, modifying their tasks, their interpersonal connections, and their cognitive appraisal of their work. Moreover, we investigated the long-term impacts of job crafting on sustainable employability. We could show the steps that individuals can take to shape their present job responsibilities while simultaneously developing strategies for their future career paths, with the ultimate objective of avoiding becoming obsolete in the long run. The study demonstrated the ways in which individuals incorporate job and career crafting over both short-term and long-term periods, ultimately leading to sustainable employability.

In fact, we could understand how job crafting is impacting more short-term aspects of sustainable employability, such as wellbeing, quality of working life, and work engagement. Instead, career crafting tackles the long-term features of sustainable employability, such as satisfaction with one's career, making valuable contributions, and performing well over time. It is therefore on these two time horizons that sustainable employability can be developed: individuals couple strategic planning for their long-term career success with a short-term interest in their daily satisfaction and well-being at work. Indeed, sustainable employability is

built over time, but with a focus on the present too. In this sense, it becomes important for employees to feel part of a group at work and to build a network they can refer to throughout their working lives.

1.1.3. Paper 3 – We're all in this together! Job crafting and prosocial behaviours among low skilled workers

The study conducted thirdly, *We're all in this together! Job crafting and prosocial behaviours among low-skilled workers* examines the relationship between job crafting and prosocial behaviours among low-skilled workers, with a focus on sustainable employability. The research aims to address the challenges faced by this group in maintaining their employability over time and to alleviate the associated stress and strain. The objective of the research is to investigate the viability of job crafting as a means of managing stress for workers who encounter demanding job environments. Furthermore, our objective is to investigate the organisational elements that contribute to improving the wellbeing of individuals.

The present investigation utilises the theoretical foundations of social regulation theory (Reynaud, 1979) to explain the process of rule formation and then connects it with the framework of job design and job crafting. The objective of this paper is to comprehend the interplay and potential conjugation of social regulation theory and job crafting. Furthermore, the present study investigates the potential of job crafting as a means for low-skilled workers to manage stress and attain recognition in their respective roles. The objective of our study is to determine the degree to which individual and collective job crafting can serve as a means of offsetting the hierarchical nature and strict rules of basic, repetitive jobs.

In our study, we could demonstrate how job crafting is helpful in building closeness within the team. Indeed, we could observe that prosocial behaviours increased in tough times; these moments can be characterised by a positive attitude towards challenges when the team is close and they are aligned to a common goal.

Moreover, we underlined the important role of the organisation with respect to how and to what extent employees can craft their job; in fact, we argue that it is the supervisor's or leader's responsibility to grant employees the support they need and at the same time to grant them the freedom to craft their job. In this way, the manager can make sure that the outcomes of job crafting are positive for the individuals and their colleagues, avoiding the potential negative conflicts of job crafting.

Job crafting has turned out to be a driver of innovation in processes: employees can come up with new ways of doing some activities, and such new procedures can be spread among

colleagues since employees influence each other. Once they become the new informal standard, the innovation can be recognised by the leader, and it is therefore internalised and adopted as a formal rule by the organisation. In our paper, we explained how job crafting can, therefore, be considered a precursor to the bottom-up, autonomous regulation that characterises Reynaud's social regulation theory.

1.2. Cross-contributions of the three papers

In sum, our studies show that sustainable employability has to be built every day in the work activity itself. It is indeed in the work context that individuals can accomplish valuable activities that turn out to be important achievements for their careers.

In addition, it is crucial to emphasise that the nature of one's job responsibilities can either strengthen or undermine their employability in the workforce. Tasks and responsibilities that require ongoing personal development through the acquisition of new skills or the enhancement of existing competencies can enhance an individual's appeal in both the internal and external job markets. Expanding the range and complexity of job responsibilities can enable employees to enhance their skill set and expertise, thereby facilitating their proficiency in diverse domains beyond their primary occupation. This phenomenon may potentially result in certain employees being inclined to seek alternative employment opportunities.

On the other hand, the job itself could eventually reduce one's employability. Indeed, engaging in a single job for an extended period without any scope for diversification, progression, or acquisition of novel proficiencies would impede an individual's capacity to enhance their professional trajectory. If employees are not provided with opportunities to develop and enhance their skill sets, they may inevitably experience a state of obsolescence. This phenomenon may lead to a decrease in individuals' motivation levels and their inclination to enhance their abilities and acquire new competencies. Consequently, these circumstances may render an individual unable for employment, hindering their ability to establish a fulfilling professional trajectory.

Since the work itself, its content, and the way in which it is organised have such a huge impact on the employees' future employability and therefore future careers, organisations should acknowledge their responsibility towards employees in the development of their employability. The framework of sustainable employability integrates such shared responsibility. In fact, from the point of view of sustainable employability, the responsibility for employability development is shared between the two parties. This is useful to make sure that employees

remain attractive in the labour market and that organisations can take advantage of the performance of motivated and engaged employees. Thus, empowering employees and encouraging them to propose initiatives and innovations from the bottom up is helpful for the livelihood of the working environment and to make sure that employees can thrive, satisfy their responsibilities, and build their sustainable employability.

However, how can sustainable employability be constructed, even when employers and employees work together to generate not only economic profitability but also sustainable employability?

In this thesis, we argue that job crafting enables the creation of sustainable employability.

In fact, we argue that sustainable employability is constructed in everyday work activities. Indeed, as we have mentioned before, work activities can enhance or diminish one's employability. The ability of an individual to establish sustainable employability is contingent upon the opportunities available to them within their daily work environment. Over an extended period, routine work-related tasks play a crucial role in shaping an individual's potential to establish and maintain sustainable employability. The function of the organisation should to be to provide such a possibility and determine the manner in which job responsibilities are allocated, considering the possible impact on an individual's future employability.

We argue that individuals can create sustainable employability through job crafting. In fact, through job crafting, employees can stretch the boundaries of their jobs to make them more suitable for themselves. Through job crafting, employees can feel more empowered and engaged in their work, resulting in the ability to make more meaningful contributions and increased job satisfaction.

In fact, when individuals craft their job, they often do this by expanding their set of knowledge and skills, thus increasing their employability in the future.

Job crafting is a phenomenon in which employees engage in a process of modifying their job tasks and responsibilities to align with their personal preferences. This type of behaviour has been found to enhance job satisfaction and increase employee engagement, as compared to adhering strictly to the prescribed job description. People can shape their relationships at work with colleagues, customers, or supervisors to feel better, work better, and enhance the quality of such work-related relationships. This can help them find a deeper meaning, but it can also help them build a strong, solid network of people they can count on throughout their career. Moreover, they can choose to avoid those people they deem toxic or negatively affecting their mental health at work.

Individuals tend to optimise their job crafting by leveraging their strengths and allocating more time and effort towards tasks that align with their competencies or personal interests. Tailoring job roles to align with an employee's strengths and interests can facilitate a greater level of engagement and proficiency, as they are able to concentrate on tasks that are more personally fulfilling and conducive to their professional development. In the long run, such job crafting activities could eventually help them develop expertise in a different professional area, which enriches their profile and enhances their employability.

In the three papers that are part of this thesis, we have examined various facets of sustainable employability. In particular, the first paper dealt with the way in which individuals thrive in the present moment and get ready for the future by developing a set of competences that are useful in the market too. Our second paper, instead, deals with issues of remaining employable in the long term and facing uncertainty throughout one's career. Our third paper adopted another point of view, exploring how employees could give meaning to a job that looks like it has none, managing to find a valuable contribution.

2. Job Crafting as a Work Conversion Factor: a contribution to the literature on Sustainable Employability

In the previous paragraph we have showed how rich and valuable the model of sustainable employability can be in putting people in the conditions to feel realized thanks to their job and to achieve something they value, by developing themselves on the personal and professional level.

In our papers, we have explained what it means to be employable, which combinations of skills tend to be more demanded in the job market and we underlined the fact that, for employees, developing different sets of skills can make them more attractive in the labour market and within their firm. In fact, being able to "wear different hats" thanks to various types of competences can increase the possibility for them to communicate efficiently and effectively and to solve complex problems requiring the usage of more than one type of skills.

The ability to face complex issues is indeed essential in an evolving working world, which faces difficult, multifaceted problems.

We also showed how sustainable employability can be developed both in organizations with a high level of autonomy and personal freedom, but also in very prescribed and precise jobs.

Indeed, sustainable employability has different outcomes for different individuals. In our research, we could contribute to Van Der Klink and colleagues' model (2016) of sustainable

employability: in fact, we can claim that job crafting constitutes an effective method to foster sustainable employability: through the bottom up, proactive initiative, individuals can make their own personal contribution to their job.

The sustainable employability framework underlines that individuals are allowed and in fact should be proactive and take initiative in their everyday job and in fostering their employability: by developing their skills and competences they are able to not only face difficulties and changes, but also to choose in which direction they wish to develop their job and develop their career. Taking initiative, indeed, makes people care more about their job, feeling more engaged and willing to improve in their career. These aspects are important for workers that are both autonomous, highly responsible and active, and for workers who are instead in much more constrained jobs, without much freedom.

We contribute to the model by adding that the organization of work is indeed a crucial factor to allow employees to convert their resources into capabilities. Moreover, we show how job crafting should be integrated into the model as a conversion factor that enables employees to make conscious choices about their work, their competences and their career, while at the same time improving the work itself, thus benefitting the organization they work in. In the figure below, we show the model of sustainable employability with the integration of job crafting as a work conversion factor.

Figure 5. The model of sustainable employability (Van Der Klink et al., 2016), with the integration of job crafting as a work conversion factor.
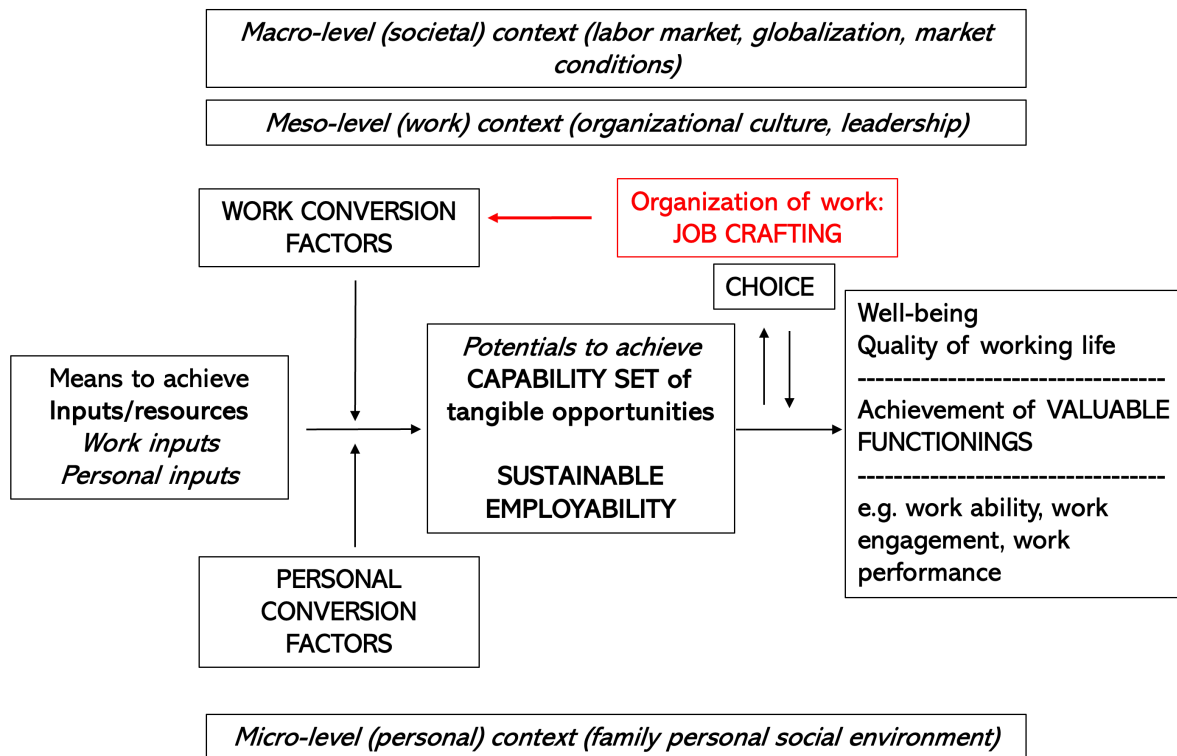
The model of sustainable employability is therefore an integrative one: it allows to reconcile the perspective of employers and employees in a unique point of view, directed at creating a better, more sustainable world of work for both parties. In fact, employees can benefit from pursuing valuable objectives through their work, choosing in which directions to develop their competences to benefit their careers. They can maintain their health at work and their well-being too, avoiding stress and burnout by regulating the job demands that could lead to an excessive strain.

Employers, instead, benefit from counting on a set of engaged, satisfied employees who engage in developing themselves from the personal and professional point of view, and take initiative in improving the process and the work itself, by adjusting it to optimize demands, working and performing better. Employers should, for the sake of employees' well-being and to improve their conditions: employability is a shared responsibility.

Sustainable employability should therefore be considered as a shared goal between employers and employees, who should actually work in concertation to increase the interest of both parties.

Therefore, insisting excessively on the individual agency alone can lead, as we previously showed, to undesirable consequences: first, there would be too much polarization between employable and not employable individuals. The first would be able to remain occupied or find the best positions, while the others would struggle and would have to bear a harsh labour market with unstable working conditions (Forrier et al., 2018; Fugate et al., 2021). Moreover, firms would be able to avoid taking responsibility in the development of their employees and would delegate this task entirely on the individuals, who might not have the means and expertise to figure out themselves how to improve (De Grip et al., 2004).

On the contrary, instead, the type of approach that allows to create the conditions for a more inclusive world of work, in which employees can manage to take responsibilities and are supported by their firms is an integrative approach. Employability should be a shared responsibility between employers and employees, who should both share the burden and the benefits of such an approach (Fugate et al., 2021, Clarke, 2008). Indeed, employers investing in their employees would benefit from their competences and engagement (Fugate et al., 2021; Tims and Akkermans, 2017). The framework of sustainable employability is inscribed in this framework: the responsibility is shared and the importance is given to an organization that puts the worker at the centre (Van Der Klink et al., 2016; Fleuren et al., 2020; Abma et al., 2016).

2.1 Sustainable Employability is created at work

It is therefore important to acknowledge the importance of work itself in the development of employability: thanks to our work, we can claim for the need to renew the attention to the work itself, the work activities, the real job that is done and that can foster the development of sustainable employability.

Job crafting has the merit to put the attention to the worker and to focus once again on the daily activities and their long-term impacts. In fact, the key aspect of sustainable employability is indeed sustainability: one should be employable through their whole working life, healthy, able to work, satisfied with their work and able to achieve valuable and positive outcomes.

Hence, if work is at the centre, it is essential to focus on the organization of work, as it has the potential to create the conditions for sustainable employability. Job crafting is, in our view, the trigger that enacts the appropriation of work by individuals and ultimately the achievement of sustainable employability.

Therefore, we propose a paradigm for the development of sustainable employability thanks to the organization of work, and thanks to the individual enactment of such conditions. Job

crafting, therefore, becomes the mean allowing individuals to personalize their work and achieve sustainable employability within an organization of work that aims at providing guidance for individuals.

The centrality of the work itself, therefore, claims for a renewed attention to the planning of work: tasks and activities are important for the individuals: if sustainable employability is built at work and through the work itself, then the planning of work should promote and favour it. In fact, work can indeed promote employability, when tasks are challenging, require individuals to stretch their competences and learn something new they could use elsewhere, or even when they require collaboration, sharing and mutual support with colleagues (thus enhancing the individuals' soft skills).

On the other hand, work could lead even to a destruction of employability, when tasks are repetitive, routinary, applicable only in the specific context of the firm, or being stressful to the point that they lead to disengagement by the worker (Fleuren et al., 2016; 2020; Hazelzet, 2019).

Focusing on the work entails acknowledging its importance and the centrality it has in the development of the individual (Van Der Klink et al., 2016). Work can be an enhancer or a destroyer of employability: hence, part of the responsibility of the employer is to plan for work such that it allows people to develop themselves and to realize their potential.

2.2 The conditions to create Sustainable Employability

The crucial role of the organization of work makes it necessary for many organizations, especially those inspired by the Tayloristic philosophy, trying to maximise efficiency as much as possible, without thinking to the consequences in the long term for the individuals working in repetitive, alienating jobs.

The organization should make sure that both the short-term and the long-term conditions for the realization of sustainable employability are realized – that is, respectively, well-being, engagement, satisfaction and realization of value, meaning, health, work ability (Van Der Klink et al., 2016; Fleuren et al., 2016). To do that, the company should not only be creating the right working conditions to promote the development of skills, but it should be an enabling environment or a capability-enhancing environment (Fernagu Oudet, 2012; 2014; 2016; Zimmermann, 2008; 2016).

A capability-enhancing environment is the one that, according to Fernagu Oudet (2016) "allows to the work to become enabling: a work that offers meaning, leeway, possibilities for

development and learning, a work that allows to increase autonomy and power to act for all the actors, and authorises reflexive processes on the individual and collective activities" (Fernagu Oudet, 2016, p. 384).

A capability-enhancing organization is pluralist, participatory, fostering development, just, and responsible (Véro and Zimmermann, 2018): this type of organization gives people the access to resources in order for them to choose freely, so that they can realize their valuable goals (Zimmermann, 2008). In an enabling environment – or a capability-enhancing environment – individuals should be given the opportunity to improve and develop their skills and competences. Such opportunities should be present for all, in a universalistic approach, and without endangering the individuals' future capability to act (Fernagui Oudet, 2012; Vidal-Gomel and Delgoulet, 2016; Falzon, 2013). Learning is fundamental to create an enabling environment, as it has the goal to ultimately lead people to explore and exploit their resources (Fernagui Oudet, 2016). In light of our studies, we argue that job crafting can be a way to promote an enabling environment, as it allows individuals to increase their autonomy, promoting continuous development, to improve and exploit one's strengths (Tims et al., 2013; Lazazzara et al., 2020; Wrzesniewski et al., 2013). In fact, numerous studies have proven the positive effects of job crafting in reinforcing individuals' autonomy and in helping them improving their skills or overcoming some weaknesses. Indeed, job crafting can be considered as an enabling factor since people can tailor their job to themselves to reach something valuable for them and, to do so, are pushed to find new ways to improve.

2.2.1 The conditions for job crafting: psychological safety

To create an environment that allows people to improve, learn, and innovate while appropriating their own job, it is important to create a safe space, an environment in which the employees are able to express themselves. Indeed, psychological safety is important in organizations and is considered as the perception individuals have with respect to how comfortable they are in showing and employing themselves without fear of negative consequences for their career, status, or self-perception (Kahn, 1990, p. 708). For Kahn (1990), psychological safety is present when people have built safe and supportive interpersonal relationships at work (Neuman, Donohue, Eva, and 2017). Edmonson (1999, p. 350) argues that psychological safety is the "shared belief held by members of a team that the team is safe for interpersonal risk taking": psychological safety, therefore, depends on the individual perceptions and point of view. Indeed, psychological safety at work promotes better

performances and feelings of confidence by individuals: they feel that they have the room to try and create something new, to give voice to problems and to explain their point of view. In fact, psychological safety helps explaining how individuals take initiative, share ideas and knowledge to provide their contribution to the firm and the shared teamwork (Edmonson and Lei, 2014). Edmonson (2004) claims that individuals in a psychologically safe situation will more likely initiate proactive behaviours, voice behaviours, and take initiatives.

Having good relationships with co-workers and with hierarchical superiors at work promotes psychological safety, which then fosters learning and engagement (Carmeli and Gittell, 2009). Crafting relationships at work by increasing their depth and their openness would make people able to be even more proactive and autonomous. Indeed, as confirmed by Ghitulescu (2007), individuals feel more at ease in engaging in job crafting when they experience psychological safety in their team. Indeed, when individuals feel safe in their working environment, they can be confident enough to alter their behaviours and their usual ways of doing things. In fact, these behaviours could be not accepted by the others or could be seen negatively – for instance when impacting others: if individuals lack psychological safety, they wouldn't be able to push the boundaries of their work (Ghitulescu, 2007).

Plomp and colleagues (2019), in their study also show a connection between psychological safety and job crafting: in particular, permanent employees experiencing psychological safety tend to craft their job by increasing their structural and social job resources, and by augmenting their challenging job demands. Moreover, they also notice a negative relationship between hindering job demands and psychological safety, suggesting that when psychological safety is present at work, individuals tend to avoid decreasing their hindering job demands (Plomp et al., 2019). Therefore, coherently with our findings, we could argue that an enabling organization should promote job crafting by also promoting psychological safety. In fact, when people can feel free to take the risk of changing their behaviours, they can engage in job crafting with positive results: psychological safety could be among the traits of the enabling organization.

2.2.2. Developing and managing competences for sustainable employability

As we mentioned before, from our finding we can argue that the importance of the enabling role of the organization in supporting employees achieve their sustainable employability. Organizations should make sure employees are in the right conditions to achieve what is

valuable for them and pursue both economic objectives and the objective of personal development.

To maintain employability, individuals should work on the improvement and update of their skills and competences through time (Van Der Hejide and Van Der Hejiden, 2006; Williams et al., 2016; De Grip et al., 2004). In fact, being continuously able to learn new things and adapt to an evolving world of work by being capable to solve complex problems and having some critical competence can make individuals attractive in the labour market for their whole working life (Williams et al., 2016).

Therefore, we can consider the issues related to the development of sustainable employability being connected to those about the management of competences and the creation of an enabling environment that creates the conditions for sustainable employability.

The development of competences entails an aspect of individual responsibility in their maintain and management: in developing their competences, individuals need to self-evaluate and direct their effort towards the aspects they consider more important or they like more to maintain their employability and face the challenges of an evolving world of work. This involves taking the responsibility for the management of their own employability, understanding that the individual initiative is fundamental. The sustainable employability framework does need individuals to be responsible for their employability, and taking care of the development of competences. Individuals, moreover, have the responsibility of making a choice as to which valuable outcomes they aim at pursuing and how they aim at contributing in the organization (Hazelzet et al., 2019). Moreover, in the sustainable employability framework, the attitude employees should adopt is the one of the lifelong learning: in fact, to be able to last in the long term, it is essential to be able to keep working. The work ability comes not only from physical health, but also from the ability of employees to be up to date with their abilities (Fleuren et al., 2020). Moreover, autonomy is essential: when not granted by the employer, it can be created by the employees themselves. Indeed, the construction of autonomy is often a process that entails a learning phase (Grasser and Noël, 2023).

However, individuals are not considered as the sole responsible for the development of their competences: in fact, the responsibility is shared with the organization in the achievement of individuals' sustainable employability.

The competence-based approach to employability, therefore, can help the companies in creating the conditions for their employees to pursue something valuable for them (Loufrani-Fedida and Saint Germes, 2013).

Organizations should be enabling, meaning that they should put individuals in the conditions to pursue sustainable employability: the creation of such conditions passes through helping employees in developing their competences. Indeed, as mentioned by Loufrani-Fedida and Saint Germes (2013), an enabling organization should promote the individuals' development. In fact, with respect to the management of competences, different approaches could be considered. For instance, in a paternalistic approach to employability by the management, and planning for the career of employees entirely within the organization, the company could take the whole responsibility in determining which should be the competences and skills individuals should develop in their career, according to the need of the firm in the internal labour market. On the other hand, if employees are let completely alone in an approach mirroring the boundaryless, nomad careers, individuals are considered the only ones who should bear the responsibility for their career and competencies.

The approach of sustainable employability proposes is an integrative, third possibility: sustainable employability and job crafting entail an individual activity of responsibility-taking while the organization at the same time acknowledges the importance of supporting individuals in this aspect. The organization should acknowledge the individual differences and find a way to plan for individual's development of competences in concertation with them, agreeing on the individual tendencies and the organization's needs. The model of sustainable employability requires therefore an open, strong communication between the two parties, in a logic of collaboration.

Going further, to promote the development of competences, job crafting should be promoted: in fact, job crafting allows individuals to develop some competences they believe are interesting or useful – and this can be initiated by job crafting in a spontaneous way. By crafting their jobs, individuals can understand how they prefer their job to be, and they can plan for the development of the adequate competencies to achieve their preferences. Indeed, job crafting is in itself a learning process: individuals can better understand their preferences and can learn how they can on which bases they can build sustainable employability.

3. Adapting the job to oneself: a contribution to the literature on job crafting

As we have underlined in our findings, the main argument of the thesis consists in the fact that job crafting contributes to the development of sustainable employability. In our work, however, we have contributed in various aspects in advancing our knowledge about job crafting.

First, job crafting can be present in many organizations, but it changes in how it is manifested. In fact, as we have underlined, we could show how job crafting is present in different ways in different organizations. Moreover, within the same organization, it can vary consistently, depending on the room for manoeuvre individuals in various roles can expect to have. For instance, we could notice this aspect being present in the research lab: there, while job crafting was encouraged in the whole organizations, researchers had much more leeway with respect to technicians.

Second, job crafting can represent a solution to the main problem or constraint individuals receive the most pressure from: hence, the main effort would be concentrated in reducing the demand that employees find more straining and stressful or it would be directed at developing the most important skills for optimizing their work (Zhang and Parker, 2022). Through job crafting, employees can start developing new ways of working and even new skills and competencies. In the long term, this can contribute to permanent changes; hence, if individuals start modifying their jobs in the present, this could have important implications in the future. Moreover, individuals may adopt a strategic approach to job crafting, which could potentially facilitate their attainment of valuable contributions in the current context. Hence, employees have the ability to strategically develop their current job while simultaneously attempting to mould their career trajectory in the future.

3.1. Job crafting at the collective level

Moreover, job crafting can be developed both at the individual and the collective levels and it is likely to be imitated by the colleagues (Bakker et al., 2016), with various possible results. As a consequence, individuals might not find the main constraints in the hierarchy but in among their colleagues, who are the first ones to be impacted by their behaviours. Hence, we can argue that the constraints come both from the vertical and the horizontal directions, and individuals engaging in job crafting must be able to negotiate with both to be guaranteed the possibility to actually modify their job.

Then, considering the importance of job crafting at the collective level is essential, especially when considering jobs that involve certain degrees of interdependencies with the colleagues. Job crafting can in fact be institutionalized in a common way of doing things for a certain group of colleagues, which can be reconducted to the communities of practice that regulate the common behaviours (Ghitulescu, 2007; Wenger, 1998).

Job crafting, when the others can see it and imitate it, can be institutionalized and become part of the activities conducted by the team. It is therefore a way to promote innovation for organizations, and the fact that it comes from spontaneous individual behaviours guarantees a continuous testing and improvement thanks to the daily actions.

Indeed, considering the perspective of the social regulation theory (Reyanud, 1979; 1991) job crafting can be considered as the basis for the development of the autonomous regulation: in fact, the small modifications to the individual behaviour that are carried out by the individuals can be imitated among each other and be repeated. Once they become a diffused way of behaving among the collective of workers, they can be institutionalized and become a non-written rule and code of conduct which is considered as an autonomous regulation. Workers will collectively achieve an improvement of their work thanks to single individual optimizations and improvements that are put together in a unique set of rules. We argue therefore that job crafting can be considered as the micro-foundation of the autonomous regulation in the social regulation theory.

However, the institutionalization of the job crafting behaviours isn't always a necessity: in fact, especially when the focus of job crafting is on relations at work or about the cognitive perceptions individuals have of their job, job crafting isn't always imitated. Job crafting can remain exclusive for one individual. Similarly, job crafting can be carried out in different ways by different individuals: if their preferences in terms of adapting their jobs and in particular their tasks are different, it becomes hard to actually constitute a unified set of behaviours that create a rule, even an autonomous, bottom-up one. Therefore, to consider job crafting as a precursor for the autonomous regulation, it is necessary that an imitation process (Tims et al., 2016) and a sharing process take place. In fact, as reminded by Tims and colleagues (2022) collaborative crafting takes place more easily when high-quality relationships are established among colleagues, among leaders and workers, and among leaders. Moreover, Tims and colleagues underlined the importance of the leadership style in promoting approach-crafting: to this end, leadership style such as transformational leadership, servant leadership, and employee-oriented leadership are associated to approach crafting (Tims et al., 2022). It is also important to underline that, for job crafting to be imitated and appreciated by others, it is important that it doesn't increase the burden on colleagues: as found by Tims, Bakker and Derks (2015), when individuals craft their jobs by reducing hindering demands, this increases the burden on colleagues, leading to their burnout and interpersonal conflicts (Tims et al.,

2015). Instead, it is important that colleagues are positively influenced by job crafting for it to be imitated and adopted.

In this way, individuals can repeat these behaviours, adopting them if they hadn't done so already. Once behaviours are well established, they are institutionalized, albeit in an informal manner: this constitutes the basis for autonomous regulation, according to the theoretical framework of social regulation theory (Reynaud, 1979; 1991).

Therefore, in examining the collective point of view of job crafting, we contribute to a better understanding of the relationships among individuals engaging in job crafting, their colleagues and supervisors, shedding light on the important aspects related to the socialization process of job crafting, on the consequences on colleagues and the institutionalization of job crafting activities. We are thus contributing to Tims and colleagues' (2022) indications for future research in job crafting.

3.2. Job Crafting in a double time horizon

As we have seen in our study, we distinguished between job crafting in the short- and in the long-term, with different goals and outcomes.

Although the research has found differences with respect to the short-term and the long-term outcomes of job crafting, we contribute to this distinction in a different way. In fact, research has confirmed the positive effects of job crafting in the short term, such as work engagement (Bakker et al., 2012; Tims et al, 2012), work engagement on a daily basis (Petrou et al., 2012), satisfaction of the need of autonomy and competence (Slemp and Vella-Brodrick, 2014; Wang et al., 2016).

Wang and colleagues (2016) underlined various effects of job crafting in the long term, as it emerges from the literature. In fact, Wrzesniewski and colleagues (2013) confirm the positive effects of job crafting in increasing employees' meaning and identity at work as the result of job crafting in the long term. Employees can increase their person-job fit thanks to job crafting, which increases their motivation (Tims and Bakker, 2010). Instead, Mattarelli and Tagliaventi (2012) focused on the relationship between job crafting and work identity, creating a consistency between the two. When there is a lack of consistency, job crafting helps in filling the gap: the job is modified to make it fit to the work identity.

In our study, we realized that job crafting can be done by individuals with the goal of finding an improvement in their present situation. However, individuals are often strategic with respect to their career and make some choices oriented to the future of their in their daily work

activities. In doing that, individuals are planning for their career in the long term: the choices they make have some long term goals to benefit their career. They therefore engage not only in job crafting with long-term intentions, but also in career crafting (De Vos and Akkermans, 2019), which consists in a set of "proactive behaviours aimed at optimizing career outcomes through improving person-career fit" (De Vos and Akkermans, 2019, p. 129). These sets of proactive behaviours that constitute career crafting require a reflection on the motivations and career goals, being aware of the impact on employability, performance, work engagement and career success. This requires therefore a higher level of awareness with respect to simply crafting one's job to reduce boredom or decrease physical strain. Indeed, as underlined by Tims and Akkermans (2017), career success and employability can result from the combination of job crafting and career competencies.

In our second study, we could confirm that career crafting, intended as the behaviours directed at increasing the person-career fit by combining career competencies and proactive behaviours is carried out when individuals have a high level of autonomy in their work and are motivated to achieve a successful career in their domain. Moreover, they are willing to maintain their employability: for this, they are proactive in maintaining their competences at a good level and are willing to develop new ones. Hence, the combination of job crafting and career crafting is possible, but this is carried out at different levels and with different competences. In general, we could expect that the combination of job and career crafting is present among workers with higher levels of skills and in the conditions to plan for their career in the long term: they are engaged individuals, willing to achieve a successful career.

3.3. Job crafting and the meaning of work

Wrzesniewski and Dutton's (2001) seminal paper on job crafting theorizes that job crafting can improve the individuals' work identity. Wrzesniewski and others' paper (2013) confirms the benefits of job crafting in improving the meaning and the meaningfulness of work (Rosso et al., 2010; Pratt and Ashforth, 2003). Meaning of work is considered as "what work signifies or represents" (Wrzesniewski et al., 2013, p. 288), while meaningfulness concerns "how much purpose or significance work has" (ibidem). Job crafting impacts both what work signifies for employees and how much it means for employees: job crafting and meaning of work – whatever significance is the person attaches to the job – are strongly connected (Wrzesniewski et al., 2013). Indeed, employees modify their tasks, relationships, views and this impacts profoundly their vision of the work and their perception of its meaning (ibidem).

According to Rosso and colleagues (2010), there are four sources of meaning at work: first, the self, which implies that, in order to find their job meaningful, individuals have to find it is aligned with their values, beliefs and motivations. Job crafting offers the opportunity to create such alignment (Wrzesniewski et al., 2013). The second source of meaning (Rosso et al., 2010) comes from the others, which involve co-workers, managers, leaders, even family. Meaning comes from being part of a certain community, working with a certain group of people, contributing in a social group: job crafting is helpful to increase the meaning in this sense because it allows to reshape the connections and the interaction one has at work and off of work, the meaning can be increased (Wrzesniewski et al., 2013).

The third source of meaning comes from the context of the work itself – such as the job design, the individual's missions, the more general context: this can represent at the same time a reason that pushes individuals to engage in job crafting but can provide with the resources to find meaning in their job (Rosso et al., 2010; Wrzesniewski et al., 2013). The fourth source of meaning, according to Rosso and colleagues (2010) comes from the spiritual sphere: work is perceived as a calling, a vocation. Indeed, work is perceived as a service for the spiritual entity the worker believes in: hence, the connection between cognitive crafting and the spiritual sphere is clear (Wrzesniewskin et al., 2013). In our studies, we could confirm the presence of the various sources of meaning – they wouldn't change much according to the work carried out. In fact, in our second study, researchers and technicians, whose jobs are very different in terms of tasks, goals, and degree of freedom, could draw meaning from their job from the fact that it is aligned to something they value – the possibility of advancing human knowledge. Instead, low-skilled workers in the warehouse could find meaning at work from the fact that they could find their colleagues with whom they feel part of the same family. In a similar way, researchers report that, although their work is carried out independently and in a solitary way sometimes, it is the fact of discussing with colleagues and collaborating in international groups that sparks their enthusiasm and allows them to be motivated everyday: working with the others is meaningful for them. The context of the work was an element that emerged as important in our studies as well, both for low-skilled workers – who appreciated the better working conditions with respect to other jobs – and for researchers and engineers – who are proud of being part of the academic excellence. The fourth aspect, related to the spiritual sphere could be considered as partially present in a few researchers, who claimed to experience "a calling" towards science.

Therefore, these studies allow us to provide evidence that the quest for meaning is relevant for all employees, besides the prestige of their jobs or of the context they work in. Being able,

through one's work, to provide a meaningful contribution is a motivating and engagement factor for all workers: job crafting is thus an effective mean to increase such perception, which is crucial for the development of sustainable employability.

In our studies of job crafting, we have shown that individuals engage in job crafting for a variety of reasons, namely the need to improve their self-image or the need to control some aspects of the work while avoiding the undesirable consequences of the Taylorism such as burnout and alienation (Wrzesniewski and Dutton, 2001; Demerouti, 2014). Moreover, individuals aim at deepening the human connections at work and finding in it more meaning, an increased person-job fit and satisfaction (Wrzesniewski and Dutton, 2001; Tims et al., 2012). As we showed, coherently with the rich literature on job crafting, it can enhance the employees' satisfaction and performances at the same time.

Job crafting pays attention to the small constituents of the job: the everyday tasks, what is carried on in the daily work activities – with the ultimate aim to find a balance between job demands and job resources or by making the job more suitable to oneself by moulding the tasks, relationships, and cognitive evaluations about the work (Bakker and Demerouti, 2017; Wrzesniewski and Dutton, 2001).

In our work, we presented various studies on aspects such as autonomy, freedom at work, initiative-taking processes, need for acknowledgement: these have been explored for instance in the psychodynamics of work, in ergonomics, and the social regulation theory and show some similarities with job crafting. Indeed, in our thesis, we contribute to creating a connection between these two fields of the literature, underlining how similar they can be. Moreover, we argue that job crafting could be interpreted, in light of the sociology tradition, as the micro-foundation for an autonomous regulation (Bernoux, 2011).

In particular, some similarities concern the differences between the work as it should be done, according to the job description or the organization of work, and how work is actually carried out by employees. While job crafting describes the proactive behaviours dedicated to the modifications of the work and the actual activities of modifications carried out, the ergonomics perspective underlines the gap between the prescribed and the real work. Ergonomics focuses more on the aspects of the evaluation of the performances, while valuing people's health and satisfaction at the same time (Falzon, 2004; 2005).

It is interesting to notice the similarities between different theoretical frameworks from the sociology tradition – namely the psychodynamics of work, the clinics of work, the social regulation theory, ergonomics, and job crafting. Indeed, these theoretical frameworks, as we

discussed in a previous paragraph, draw from the sociological point of view, and come from the French tradition of examining the relationships between employers and employees as a dual relationship, often cause of conflict (Dejours, 1993; Bernoux, 2011; Reynaud, 1979). These theories come as a response to the problems of Taylorism and the scientific management at work, and explain how individuals aim at reappropriating their work, with the goals of feeling useful, feeling acknowledged in their work, and perceive that their job is meaningful and contributes positively to the organization they work in.

In the perspective of job crafting, the needs of meaningfulness, usefulness, the urge to create deeper relationships with the colleagues, the willingness to master one's work are still present and important. However, the relationship with the employer is not depicted as conflictual or turbulent – rather, the focus is almost completely on the employees, in a micro-perspective. The importance of the leader is underlined on the studies related to the effects of the leadership style on job crafting.

As we mentioned, the job crafting perspective is a really micro one. In fact, the analysis is really focused on the actions at work, on the strategies to find a better balance between job demands and job resources, or to change the activities, relationships, and thoughts to suit better to oneself. We found strong similarities between the job crafting behaviours and the autonomous regulation in the social regulation theory (Reynaud, 1979; 1991). In fact, the social regulation theory explains how an autonomous set of rules can emerge spontaneously from workers as a response to the strict control regulation imposed by the management. Employees, therefore, can initiate some behaviours that turn out to be encompassed in a regulation. We argue that such autonomous regulation requires some foundational aspects, which can come from spontaneous, proactive initiatives from single individuals – job crafting behaviours – which can be unified and standardized in an autonomous regulation: for this reason, we can say that job crafting constitutes a foundation for the social regulation theory.

In the tradition coming from the sociological perspective – such as the clinics of the activity, the psychodynamics of work, the ergonomics perspective, the social regulation theory, the management is seen in opposition with respect to the employers, and a high importance is given to the collective of individuals – such as the team, the union, or the colleagues sharing the same job or jobs at the same level. The job crafting perspective starts as in individual initiative, and focuses more on the relationship between the crafter and the rest of the team, who has to cope with the modifications of the work by an individual. Job crafting at the team level has been explored, and seems to have positive results, but this aspect requires further investigations.

These theories do emphasize the importance of the individual and the quest for meaning, as well as the need to overcome the suffering generated by work. Individuals strive for autonomy, engage in actions to affirm their own personal satisfaction, trying to avoid the negative aspects related to work, and direct their efforts towards a reappropriation of their work, with the double goal of improving it, and at the same time feeling they have their leeway in the organisation. The conceptualization of job crafting developed from the tradition of job design, which is more focused on the need for efficiency and effectiveness in organizations. Job design has, however, highlighted the necessity for jobs to be engaging and satisfying: the characteristics of the job should allow employees to feel accomplished in their job, while at the same time able to solve problems, challenged in their learning processes, engaged in finding more and more interesting and varied tasks, according to the job characteristics model. However, the perspective of job design comes with the goal of maximising the outcome for the organization and the employees at the same time, and the direction of the design is top-down. In fact, it is the management who, although considering the needs of the employees as well as their desires and aspirations, defines how work should be carried out. Job crafting reverses this perspective, emphasizing the willingness of employees to be homo faber in their work, to be autonomous, to be able to make their job suitable for them.

It is evident that the two traditions are complementary to each other: they focus on different aspects, but they all highlight the necessity for an individualization in the design of the work, for the employees to feel accomplished in their job and to find meaning in their activity. To us, therefore it seems possible to create a bridge between these two different traditions: each has its peculiarities and aims at explaining different aspects, but some commonalities are present.

4. Methodology contributions

This thesis provides interesting contributions from the point of view of the methodology, for various reasons. In particular, the peculiarity of our work is in the combination of two different, complementary qualitative studies that follow one quantitative one.

Indeed, many recent studies on job crafting are quantitative and, although various qualitative studies are present too, we are not aware of a comparison between two different cases that combine different methodologies for the data collection.

In fact, the interviews we conducted to in our second study – conducted in a research laboratory in Paris seemed to us to be the most suitable methodology for the study. It would have been impossible to be considered as part of one project to carry out a participant observation, due to

the long time frame of the projects and to the need of a scientific expertise that would require years of study. Moreover, the real work in the laboratory is carried out in collaboration but in an independent manner, and it is mostly a cognitive work, which makes it hard to observe. Interviews seemed therefore appropriate to explore the long term and the short term aspects of the individual choices and allowed us to highlight the strategic dimension and the double time horizon in job crafting.

For our third study, the choice of observation allowed us to be closer to the workers and to be trusted by them since we were on the same level. Sharing the same schedule, carrying out the same activities allowed a closer look on their activities, the relationships with them and the relationships with the organizations. This allowed us to understand their issues and worries: in a context of low-skilled workers, observing them and being part of their informal chats allowed us to learn about their worries and preoccupations.

Working on two different cases allowed us to make a comparison and to understand the commonalities about job crafting: job crafting happens in any type of work – individuals aim at making their job more suitable for them in any situation.

The presence of job crafting leads to work engagement, but it is emerges as well that employees are engaged therefore they craft their job: a mechanism of appropriation of their work is present. Employees taking the initiative of modifying their job to improve it are willing to do it better, to optimize it and to get better results. Thanks to the attention they put on the work to modify it, they are able to create small or big innovations in their work. Such innovations can be then integrated by the management in the routine of the work.

These details couldn't have been caught without a close observation or explanation of the rationale for some activities. It is important for researchers, therefore, to be able to analyse even the smaller details when analysing people's work. In this respect, opposite cases and qualitative methodologies can be rich in details and helpful.

5. From Sustainable Employability to Sustainable Human Resource Management

As we mentioned at the beginning of our thesis, sustainability is at the core of the sustainable employability framework, which aims at making sure people can be satisfied with their in the long term beyond the mere economic interest coming from their work. Sustainable employability entails not only being able to find a job, but to find a job that allows one to feel realized and satisfied by accomplishing something valuable, by being healthy and having a

good, balanced relationship with work. Sustainability, therefore, is about meaning, realization of value, and balance to last in the long term.

Employability, therefore, becomes the new job security, the way in which employees can make sure they can continue to progress in their career. In the long term and in uncertain, unstable environment in which change is a constant, employability allows individuals to collect a variety of different working experiences in their career. It is interesting therefore to examine the connection between sustainable employability and careers. Sustainable careers, in fact, are a peculiar form of human sustainability (De Vos, Van Der Hejiden, and Akkermans, 2020).

In the New Economy, according to Van Der Hejiden and De Vos (2015), the increased need to protect employability has made it more important for careers to incorporate the concept of sustainability

Careers, intended as the series of work experiences that individuals experience during their working life (Arthur, 1989) are not any more linear, predictable, and hardly ever any more are developed within the same organization for the whole working life of an individual. On the contrary, careers are boundaryless (De Filippi and Arthur, 1994), protean (Hall, 1976; 2002), kaleidoscopic (Mainiero and Sullivan, 2005).

Van Der Hejiden and De Vos (2015) underline that four main elements are central in the definition of career: time, agency, social space, and meaning. Time refers to the fact that individuals move through time – in the new economy, their movement is for longer careers with less predictable paths. Social space – belonging to the personal and the professional spheres of the individual influence their career – can't be considered separately from someone's career: they are connected and influence each other. The social space has changed over the last decades: careers have become boundaryless, they unfold in an uncertain, evolving social space. Agency is intended as the idiosyncratic way each individual has to deal with their career, in terms of the choices they make, the proactivity they show in managing their career and how nomad they perceive their career. The importance of agency underlines the fact that individuals are considered to be the sole responsible in the development of their career, and this is especially hard in a world in which many choices are available and the situation is uncertain. Meaning underlines the fact that the concept of subjective career success has become more relevant than objective career success for many individuals: therefore, the meaning of a successful career for the individual will depend from what they realize with respect to their career anchors (Schein, 1990).

Considering the four elements constituting careers, Van Der Hejiden and De Vos (2015) add the aspect of sustainability, intended as the capacity to last and to fulfill one's willingness

without preventing the future generations from doing so. The definition of sustainable careers is therefore "the sequence of an individual's different career experiences, reflected through a variety of patterns of continuity over time, crossing several social spaces, and characterized by individual agency, herewith providing meaning to the individual" (Van Der Hejiden and De Vos, 2015, p. 7). Sustainable careers are dynamic over time: they can evolve, according to the set of decisions and events that, intertwined determine the way in which individuals are working at a given moment. Sustainable careers unfold in a variety of social spaces, evolving according to the individual preferences at the moment – these have the possibility of impacting the sustainability of careers. In sustainable careers, individual choices, in consideration of the external environment and the private sphere of the individual, will determine the direction individuals will take. The sustainability will be given from the alignment between the individual and organization and by the mutual benefits of the collaboration. Sustainable career is possible when there is an open communication between employers and employees (Van Der Hejiden and De Vos, 2015), as it is the case for creating sustainable employability. However, agency should be at least in part accepted by employees, considering their personal and different conditions with respect to the differences in career competencies, employability and career needs.

Careers nowadays require workers to keep developing their expertise and create new occasions for developing, while finding meaning from their work. Sustainable careers are those who satisfy the needs of the individuals but that are able to consider the interests of both individuals and organizations: indeed, the conceptualization is intrinsically multi-stakeholder (De Vos et al., 2020).

Moreover, sustainable careers are a dynamic process, in which both positive and negative events and experiences, their perceptions by the individuals and the other parties create the basis for a continuous "dynamic learning" (De Vos et al., 2020, p. 2).

The conceptualization involves a continuous re-evaluation of choices and the adaptation of work to the phase of life individuals are in, with the goal of making it suitable to themselves and feel accomplished. The indicators of a sustainable career are in fact: happiness, health, and productivity (De Vos et al., 2020). These features are considered as "as key for one's individual prosperity, yet they also form the main building blocks for the welfare of one's family and peers, the organization wherein one works, and society as a whole" (De Vos et al., 2020, p. 4). The model of sustainable careers is thus based on the idea that individuals, in concertation with the organization and the private sphere of their life, are meant to work in a way that preserves their health and sustainable employability, allowing them to adapt and grow thanks to their

career competencies and their adaptability. These aspects create the conditions to navigate an uncertain world of work in and face the unpredictability of the working life.

Sustainable careers constitute therefore a desirable condition to make it possible for people to reduce the negative aspects of work, but to be able to contribute positively to the society as a whole through their work.

In this framework, employability, and in particular sustainable employability is considered as a basic condition to start from, as the aspect that guarantees individuals the security to navigate the uncertainties they will experience through their working life. The accent is put also on the need for both individuals and organizations to work together towards a continuous individual development, which can be achieved by a proactive attitude by individuals and the conditions for development provided by the organization. In this sense, the conditions to create sustainable careers and sustainable employability are the same: they are both based on the collaboration and sharing between the two parties.

If sustainable careers are the directions towards which we should tend, a shared effort should come from both individuals and organizations.

In our thesis we explored the topic of employability and in particular of sustainable employability. We argued that job crafting is a conversion factor that puts individuals in the conditions to build sustainable employability and that it should be fostered by organizations in order to promote individuals' satisfaction and realization and to boost their performance. Indeed, our argument is based on the capability approach, for which a conversion of inputs into capabilities has to take place to give individuals the freedom to choose the valuable functionings they aim at achieving.

In this framework, we underlined the importance of sharing the responsibility for the creation of such conditions between employers and employees. In fact, on the one hand, individuals need to accept a part of their responsibilities in the management of their career: their proactivity is fundamental. They should be active in developing their competences and skills, in making sure that their activities at work are not damaging their employability, in scanning the evolution both in their firm and in the external environment to detect which are the key factors that might influence their jobs and which are the likely evolutions that might impact them. In this way, they will be proactive in developing the right skills, by crafting their job or by proposing this to their firm. By being responsible of their employability, individuals can feel more engaged and will have the possibility to choose to give their career the direction they like more and feel more aligned with their values and beliefs.

On the other hand, organizations shouldn't count only on the individual agency for the development of their employability. Indeed, since it is in the work activities that sustainable employability is build and developed, as we have argued earlier, it is essential that organizations create jobs that can foster employees development by putting them in the conditions to stretch their competences. Jobs should offer the possibility for development, but also to achieve satisfaction and meaning: their contribution to the firm should be clear and their value enhanced. Employees should be supported in their work and, if the need will emerge for them to switch to another organization, organizations should help their workers.

In this framework therefore, it is interesting to understand what is the role of human resource management? How can human resources contribute to the individuals' realization in a context of uncertainty and constant evolution, and in which firms themselves can't make sure forecasts?

Human resource management should adopt an approach that makes it possible for the organization to maximise its economic goals, while making sure that that individuals' abilities contribute to such economic goals, without being damaged. Human resources should make sure that employees in the organization are satisfied and put in the conditions to achieve their professional objectives without detrimental consequences for their personal life. Individuals should be valued for their contributions and should be trusted enough to be given enough leeway to solve their problems and craft their job in the way that seems to be more suitable to themselves. Employees should be able to count on the support of human resource managers, who could advise them on their development and accompany them throughout their career within the company, or helping them to find a better opportunity in the external labour market, if need be.

In this respect, an interesting and promising perspective comes from the sustainable human resource management approach, which is defined as "the pattern of planned or emerging human resource strategies and practices intended to enable organisational goal achievement while simultaneously reproducing the HR base over a long-lasting calendar time and controlling for self-induced side and feedback effects of HR systems on the HR base and thus on the company itself" (Ehnert, 2009, p. 74). Sustainable human resource management research is flourishing and promising, and seems to offer interesting perspective of a more just, inclusive, moral approach to human resource management.

In our view, human resource management should create the conditions for the achievement of sustainable employability for employees and to maintain it, whilst making sure that the economic goals are reached. To do that, the approach to the management of human resources

should be individualized, tailored to the needs of individuals: human resources should provide to the employees the possibilities to achieve their potential, both for themselves and for the firm. The creation of such conditions entails an open, collaborative approach: individuals need to manage their employability and to choose how to develop their career and the responsibility of the organization should be that of putting them in the conditions to do so and to achieve the valuable contributions they could bring.

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Employabilité durable et job crafting : trois essais sur les stratégies adoptées par les individus au travail pour développer leur employabilité, succès de carrière et bien-être

Résumé de la thèse en français

Cette thèse porte sur le développement de l'employabilité durable à travers le job crafting. À partir d'une analyse de la conceptualisation d'employabilité, le cadre théorique de l'employabilité durable, basé sur l'approche par les capabilités, est adopté. L'employabilité durable inclut non seulement la possibilité pour les individus de trouver un emploi et un revenu tout au long de leur vie professionnelle, mais aussi la capacité d'obtenir des contributions de valeur, du bien-être, de la satisfaction et des performances, dans une situation de collaboration entre les individus et l'organisation. Nous soutenons l'idée que l'employabilité durable peut être développée grâce au job crafting, des comportements proactifs que les individus adoptent pour adapter leur travail à eux-mêmes. Grâce au job crafting, les individus peuvent adapter leur travail à eux-mêmes, améliorer leur satisfaction et engagement.

Nous explorons ce sujet à travers trois études : premièrement, une étude quantitative visant à comprendre quelle combinaison de compétences rend les individus employables. Deuxièmement, une étude qualitative cherchant à comprendre comment les travailleurs d'une organisation permissive construisent leur emploi et leur carrière à court et à long terme pour atteindre une employabilité durable. Troisièmement, une étude qualitative sur la manière dont les travailleurs peu qualifiés utilisent le job crafting pour accroître le sentiment d'appartenance et de bien-être.

Grâce à nos études, nous contribuons à la littérature sur l'employabilité durable et la création d'emplois, montrant comment la création d'emplois a le potentiel de contribuer à la réalisation de l'employabilité durable.

Mots clés :
Employabilité durable, job crafting, développement, employabilité, carrières, compétences, approche par les capabilités

Sustainable employability and job crafting: three essays on the strategies adopted by individuals at work to develop their employability, career success, and well-being

Abstract

This thesis deals with the development of sustainable employability through job crafting. Starting from an analysis of the conceptualization of employability, the theoretical framework of sustainable employability, based on the capability approach, is adopted. Sustainable employability includes not only the possibility for individuals to find a job and income through their working life, but the ability to achieve valuable contributions, well-being, satisfaction, performance, in a collaborative situation between individuals and organization. We argue that sustainable employability can be developed through job crafting, a set of proactive behaviors individuals initiate to adapt their job to themselves. Thanks to job crafting, individuals can tailor their job to themselves.

We explore this topic with three studies: first, a quantitative study aiming to understand which combination of competences makes individuals employable. Second, a qualitative study seeking to understand how workers in a permissive organization craft their jobs and careers in the short and in the long term to achieve sustainable employability. Third, a qualitative study on how low-skilled workers use job crafting to increase the sense of belonging and well-being.

Through our studies we contribute to the literature on sustainable employability and job crafting, showing how job crafting has the potential to contribute to the realization of sustainable employability.

Key words:

Sustainable employability, job crafting, development, employability, careers, competences, capability-based approach