



**Universidade do Minho**  
Escola de Psicologia

Joana Antunes Guimarães Soares

## **Adaptação à Carreira em Estudantes e Estudantes-Trabalhadores**

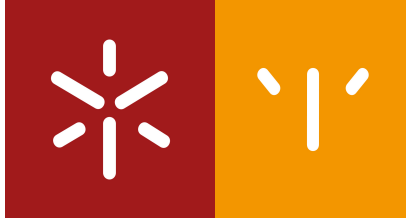
**Adaptação à Carreira em Estudantes  
e Estudantes-Trabalhadores**

Joana Soares

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**Universidade do Minho**

Escola de Psicologia

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**Adaptação à Carreira em Estudantes  
e Estudantes-Trabalhadores**

Tese de Doutoramento

Doutoramento em Psicologia

Na especialidade de Aprendizagem, Instrução e Carreira

Trabalho efetuado sob a orientação da

**Doutora Maria do Céu Taveira de Castro Silva**

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# **ADAPTAÇÃO À CARREIRA EM ESTUDANTES E ESTUDANTES-TRABALHADORES**

## **Resumo**

O estudo explicativo dos processos de adaptação ao ensino superior, por diferentes grupos de estudantes, pode ter implicações importantes para o desenho das intervenções de carreira com universitários. Deste modo, o objetivo principal desta investigação foi testar um novo racional teórico sobre o processo de adaptação académica em estudantes e estudantes-trabalhadores. Este teve por base duas teorias contemporâneas da carreira com vasta validação empírica, a teoria sociocognitiva e a teoria da construção da carreira. Especificamente, procurou-se analisar se variáveis de contexto (i.e., suporte social percebido), e variáveis pessoais de carreira (i.e., orientação proteana, adaptabilidade, comportamentos adaptativos), prediziam positivamente resultados objetivos (i.e., rendimento académico) e subjetivos (i.e., certeza, bem-estar académico, satisfação geral com a vida) de adaptação ao ensino superior nos dois grupos de estudantes referidos. Para cumprir este objetivo, foi necessário proceder à validação de três medidas que, posteriormente, integraram o teste ao modelo proposto. Referimos uma medida de orientação proteana de carreira e duas versões reduzidas das medidas sobre adaptabilidade e comportamentos de carreira adaptativos. O estudo de validação ao modelo teórico proposto incluiu 335 estudantes e 188 estudantes-trabalhadores, que responderam voluntariamente a medidas de orientação proteana, suporte social, adaptabilidade e comportamentos adaptativos de carreira, rendimento e bem-estar académico, certeza na carreira e satisfação geral com a vida. Os resultados dos estudos de validação das medidas de orientação proteana de carreira, adaptabilidade e comportamentos adaptativos apontaram para valores satisfatórios de validade e fiabilidade, permitindo o seu uso na investigação e prática com universitários portugueses. Os resultados do teste ao modelo teórico, indicaram um ajuste adequado e invariância nos dois grupos de estudantes. Entre os contributos da presente dissertação destacam-se, o enriquecimento da literatura de avaliação psicológica em Portugal e os contributos para a prática psicológica nesta população. Neste caso, a promoção de uma rede de suporte e o desenvolvimento de agência face à carreira parece contribuir positivamente para a adaptação ao ensino superior.

*Palavras-chave:* adaptação à carreira, ensino superior, estudantes-trabalhadores, universitários



## **CAREER ADAPTATION IN NON-WORKING AND WORKING STUDENTS**

### **Abstract**

The explanatory study of adaptation processes to higher education by different groups of students can have important implications for designing career interventions with university students. Thus, the major goal of this research was to test a new theoretical rationale on the academic adaptation process in students and working student. This was based on two contemporary career theories with extensive empirical validation: the socio-cognitive theory and the career construction theory. Specifically, the study aimed to analyze whether contextual variables (i.e., perceived social support) and personal career variables (i.e., protean orientation, adaptability, adaptive behaviors) positively predicted objective outcomes (i.e., academic achievement) and subjective outcomes (i.e., certainty, academic well-being, overall life satisfaction) in adapting to higher education, in the two groups of mentioned students. To fulfill this objective, we validated three measures that were later included in the test of the proposed model. These include a measure of protean career orientation and two reduced versions of the measures of adaptability and adaptive career behavior. The study of the proposed model included 335 students and 188 working students, who voluntarily responded to measures of protean orientation, social support, career adaptability, and adaptive behaviors, academic performance and well-being, career certainty, and overall life satisfaction. The results of studies validating the protean career orientation, adaptability, and adaptive behaviors measures, indicated satisfactory indices of validity and reliability, allowing the measures' use in research and practice with Portuguese university students. The results of the theoretical model test indicated an adequate fit and invariance across students' groups. Among the contributions of this dissertation, we highlight the enrichment of the psychological assessment literature in Portugal and the contributions to psychological practice within this population. For the latter case, the promotion of a support network and the development of agency toward one's career seem to contribute positively to higher education adaptation.

*Key-words: career adaptation, higher education, working students, university students*

## ÍNDICE

<b>ENQUADRAMENTO DA PROPOSTA DE INVESTIGAÇÃO E METODOLOGIA .....</b>	<b>1</b>
1. Reforma e panorama atual do ensino superior português .....	3
2. Desafios na transição para o ensino superior .....	5
3. Resposta aos desafios na perspectiva da Psicologia Vocacional.....	11
3.1. A teoria sociocognitiva da carreira.....	11
3.2. A teoria de construção de carreira.....	18
4. Adaptação ao ensino superior: Modelo integrador em estudantes e estudantes-trabalhadores .....	23
5. Metodologia aplicada.....	29
<b>ESTUDOS EMPÍRICOS.....</b>	<b>34</b>
1. Protean Career Orientation Scale: A Validation Study with Portuguese University Students.....	35
2. Career Adapt-Abilities Scale–Short Form: Validation among Portuguese University Students and Workers.....	56
3. The Student Career Construction Inventory: Validation with Portuguese University Students.....	82
4. Career Adaptation in Higher Education: A Study with Non-Working and Working Students.....	102
<b>DISCUSSÃO GERAL .....</b>	<b>132</b>
1. Principais resultados: revisão e reflexões.....	134
2. Implicações práticas e teóricas.....	137
3. Limitações e direções para futuras investigações.....	139
<b>CONCLUSÃO GERAL.....</b>	<b>143</b>
<b>REFERÊNCIAS.....</b>	<b>146</b>
<b>ANEXOS.....</b>	<b>168</b>

## ÍNDICE DE FIGURAS

### ENQUADRAMENTO DA PROPOSTA DE INVESTIGAÇÃO E METODOLOGIA

Figura 1. Modelo sociocognitivo da satisfação, ou bem-estar, nos domínios escola/trabalho .....	13
Figura 2. Modelo sociocognitivo dos comportamentos de gestão pessoal de carreira .....	15
Figura 3. Modelo de construção de carreira.....	20
Figura 4. Proposta teórica explicativa da adaptação ao ensino superior.....	24
Figura 5. Proposta teórica alternativa explicativa do processo de adaptação ao ensino superior.....	33

### ESTUDOS EMPÍRICOS

2. Career Adapt-Abilities Scale–Short Form: Validation among Portuguese University Students and Workers	
Figure 1. Hierarchical confirmatory factor model by social group.....	68
3. The Student Career Construction Inventory: Validation with Portuguese University Students	
Figure 1. Structural career adaptation model test.....	92
4. Career Adaptation in Higher Education: A Study with Non-Working and Working Students	
Figure 1. Integrative model of career adaptation in higher education.....	109
Figure 2. Structural models of career adaptation in higher education.....	114

## ÍNDICE DE TABELAS

### ESTUDOS EMPÍRICOS

1. Protean Career Orientation Scale: A Validation Study with Portuguese University Students	
Table 1. Item analyses.....	44
Table 2. Item's factor loadings from the Principal Component Analysis (sample A) .....	45
Table 3. Fit indices for the specified measurement models (sample B) .....	45
Table 4. Criterion-related validity.....	46
Table A1. Protean Career Orientation Scale (Portuguese version) .....	51
2. Career Adapt-Abilities Scale–Short Form: Validation among Portuguese University Students and Workers	
Table 1. Means, standard deviations, correlations, and Cronbach Alpha reliability estimates (by social groups) .....	67
Table 2. Goodness-of-fit statistics for tests of multigroup invariance across social groups and gender .....	69
Table A1. Career Adapt-Abilities Scale–Short Form (Portuguese version) .....	74
3. The Student Career Construction Inventory: Validation with Portuguese University Students	
Table 1. Fit indices for specified measurement models (sample without outliers, N = 301) .....	90
Table 2. Means, standard deviations, Cronbach's alphas, and correlations among SCCI dimensions and total score.....	91
Table 3. Correlations between SCCI, CAAS, and VIS.....	91
Table A1. Students Career Construction Inventory (SCCI) [Inventário de Construção de Carreira].....	96
4. Career Adaptation in Higher Education: A Study with Non-Working and Working Students	
Table 1. Descriptive statistics and correlations among variable for the full sample and groups.....	115
Table 2. Structural models fit (sample without outliers) .....	117
Table 3. Direct and indirect paths between variables of structural model 2 (sample without outliers) .....	118

## LISTA DE PUBLICAÇÕES

A presente dissertação tem por base as seguintes produções científicas:

I. Soares, J., Taveira, M.C., & Silva, A.D. (2022). Protean Career Orientation Scale: A Validation Study with Portuguese University Students [Manuscript submitted for publication]. Escola de Psicologia, Universidade do Minho

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## **ENQUADRAMENTO DA PROPOSTA DE INVESTIGAÇÃO E METODOLOGIA**

Na secção introdutória da presente tese de doutoramento, procura-se apresentar os conceitos basilares da adaptação à carreira num estudante universitário. Em particular, abordam-se temas como: (1) a evolução do ensino superior português; (2) quais os desafios enfrentados pelos (2.1) universitários no geral e, (2.2) em particular, por aqueles que conciliam estudo e trabalho; (3) como é que as teorias contemporâneas de carreira explicam os processos de adaptação à carreira, em particular, as teorias (3.1) sociocognitiva e (3.2) construtivista da carreira; (4) qual a ponte entre estas teorias de carreira e o processo de adaptação ao ensino superior, apresentando-se uma proposta integradora destas teorias para explicar resultados objetivos e subjetivos de adaptação ao ensino superior. No final desta secção, são ainda mencionados os objetivos do presente estudo, bem como, a (5) metodologia escolhida.

Com este breve enquadramento esperamos, por um lado, contribuir para uma melhor compreensão do objetivo e respetivos resultados da presente tese. Por outro lado, procuramos realçar que, assim como outras ocupações (e.g., emprego, voluntariado), também a ocupação de estudante é uma carreira com desafios para gerir (e.g., Hartung, 2021; Savickas, 2021 sendo, por isso, necessário compreender quais os fatores promotores de uma melhor adaptação.

## 1. Reforma e panorama atual do ensino superior português

Nascida no período medieval dos séculos XI e XII (Macedo, 2017), a universidade portuguesa tem vindo a sofrer constantes reformas em resposta às transformações políticas, económicas e sociais nas quais se insere (e.g., Cabrito & Cerdeira, 2018; Macedo, 2017). Até 1974, a universidade portuguesa era encarada como um aparelho do Estado, sendo por essência ideológica e elitista (Pereira, 2013). Posteriormente, com a revolução dos cravos, esta instituição passou a ser o principal meio para a construção de capital humano e financeiro (e.g., Cabrito & Cerdeira, 2018; Lopes & Carreira, 2018). Neste período pós-ditatorial observou-se um aumento do número de vagas nas universidades existentes à data de 1974, com a emergência até 1980 de mais sete universidades públicas e 15 institutos politécnicos públicos, e com a abertura, em 1986, do ensino superior privado.

Entretanto, em 1986, com a entrada de Portugal na União Europeia (UE), houve a necessidade de definir um conjunto de estratégias que assegurassem a mobilidade e empregabilidade dos diplomados europeus, bem como, a competitividade do Sistema de Ensino Superior Europeu. Neste sentido, a 25 de Maio de 1998, os ministros da educação alemães, franceses, italianos e ingleses reuniram-se, em Sorbonne, para debater a harmonização do ensino superior (European Commission/EACEA/Eurydice, 2018; Macedo, 2017). Esta reunião foi o motor para a concretização, em 1999, da Declaração de Bolonha, a qual, mais tarde, em 2006, se veio a implementar em Portugal.

A Declaração de Bolonha, assinada em 1999, por 29 estados membros<sup>1</sup>, tinha por objetivo garantir a mobilidade de investigadores, docentes e estudantes, bem como, desenvolver um sistema de créditos, conhecido por Sistema Europeu de Transferência e Acumulação de Créditos (ECTS)<sup>2</sup>, que permitisse a coerência e comparação entre os países europeus (European Commission/EACEA/Eurydice, 2018). Em Portugal, esta reestruturação do currículo foi notória. As licenciaturas de quatro e cinco anos, bem como, as exceções de seis anos (e.g., cursos de medicina, advocacia), passaram a licenciaturas de seis semestres (180 ECTS). Os mestrados de três anos passaram a quatro semestres (120 ECTS), exceto para aquelas profissões (e.g., Psicólogo) que exigem um total de 10 semestres (300 a 350 ECTS), surgindo a figura do Mestrado Integrado. Os doutoramentos que, por norma, não tinham duração especificada, passaram a ter um tempo limite de seis semestres (Ministério da Ciência Tecnologia e Ensino Superior, 2008). A somar aos objetivos inicialmente formulados, as avaliações trianuais da Declaração de Bolonha colocaram novas exigências às instituições

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<sup>1</sup> Áustria, Bélgica (comunidade flamenga e francesa), Bulgária, República Checa, Dinamarca, Estónia, Finlândia, França, Alemanha, Grécia, Hungria, Islândia, Irlanda, Itália, Letónia, Lituânia, Luxemburgo, Malta, Holanda, Noruega, Portugal, Polónia, România, Eslovênia, Eslováquia, Espanha, Suécia, Suíça, Reino Unido (Albanian BFUG Secretariat, 2020)

<sup>2</sup> Traduzido do inglês: *European Credit Transfer and Accumulation System*



de ensino superior. Entre elas, a criação de um ensino superior inclusivo, a adoção de uma abordagem de aprendizagem ao longo da vida e a garantia de um ensino e aprendizagem com qualidade e relevância (European Commission/EACEA/Eurydice, 2018). Esta última, adicionada na comunicação de 2015 que decorreu em Yerevan. Em consonância com o quadro de ensino e formação da UE (Publications Office of the European Union, 2020), e respetivas estratégias Europa 2020 (Comissão Europeia, 2020; Publications Office of the European Union, 2015), o processo de Bolonha objetiva criar um futuro sustentável para todas as instituições de ensino superior europeias. Apenas desta forma será possível estas instituições responderem aos desafios colocados pela sociedade de informação, na qual vivemos.

No mundo contemporâneo, onde a informação é um fator de poder e diferenciação, mais e novas qualificações estão a ser exigidas aos indivíduos (ex. competências digitais, pensamento analítico) (Pabollet et al., 2019; World Economic Forum, 2018). A utilização crescente de tecnologias como a robótica e a inteligência artificial parece ter um forte impacto na estrutura, natureza e quantidade do trabalho (Duarte et al., 2019; Pabollet et al., 2019). Muitos postos de trabalho estão a ser automatizados (e.g., sector da manufatura, agricultura, retalho) criando desemprego, outros mantêm-se estáveis (e.g., docentes universitários, especialistas de recursos humanos) e novos surgem (e.g., especialistas em *big data*, especialistas em estratégia e marketing digital) (Duarte et al., 2019; Pabollet et al., 2019; World Economic Forum, 2018). Neste panorama, designado por alguns de quarta revolução industrial, a procura por uma (re)qualificação superior torna-se um pré-requisito para a progressão no mercado de emprego (e.g., Pabollet et al., 2019; World Economic Forum, 2018). Neste seguimento, e a par das políticas europeias (e.g., Processo de Bolonha) (European Commission/EACEA/Eurydice, 2018; Macedo, 2017; Publications Office of the European Union, 2015) e nacionais (e.g., Programa para Maiores de 23, Lei n.º 49/2005 de 30 de Agosto, 2005) de incentivo à reestruturação do ensino superior, mais e diferentes alunos têm procurado este nível de ensino (e.g., Hauschildt et al., 2018; Martins et al., 2018; OECD, 2020).

Em Portugal, o perfil etário dos estudantes universitários é ainda jovem, expressando uma predominância de estudantes com percurso tradicional<sup>3</sup>, cuja entrada no ensino superior acontece logo após o ensino secundário (Araújo, 2017; Martins et al., 2018; OECD, 2020). Porém, um outro perfil não tradicional<sup>4</sup> de estudantes que sentem necessidade de regressar ao ensino superior, parece estar a

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<sup>3</sup> A literatura define estudantes tradicionais como aqueles que transitam diretamente do ensino secundário para o ensino superior após adquirirem um diploma, estudantes a tempo integral e financeiramente dependentes dos pais. Podem trabalhar a tempo parcial (menos de 15 horas semanais) ou não (Choy, 2002; Sánchez-Gelabert & Andreu, 2017).

<sup>4</sup> A literatura define estudantes não-tradicionais como aqueles que apresentam pelo menos uma das seguintes características: estudam a tempo parcial; trabalham a tempo integral pelo menos 35 horas semanais ou a tempo parcial pelo menos 15 horas ou mais semanais; são financeiramente independentes; têm dependentes a seu cargo; não completaram o ensino secundário; entraram tardiamente no ensino superior (Choy, 2002; Sánchez-Gelabert & Andreu, 2017; Valadas et al., 2016).

ganhar expressão (Martins et al., 2018; OECD, 2020). Ao mesmo tempo, a reforma do ensino superior parece ter contribuído para uma maior expressão das mulheres neste nível de ensino (e.g., Araújo, 2017; Martins, 2015). Enquanto nos anos 80, as mulheres representavam uma minoria do corpo estudantil, no ano de 2021, por exemplo, representam cerca de 55% desta população (Pordata, 2021). Um crescimento semelhante aconteceu com os estudantes estrangeiros, que em 2017 representavam 20% da população estudantil (Martins et al., 2018), e com os estudantes portadores de deficiência<sup>5</sup> (e.g., incapacidade de aprendizagem, incapacidade sensorial, doença física, problemas de saúde mental), que no mesmo ano representavam cerca de 24% desta mesma população (Araújo, 2017; Martins et al., 2018). Um último aspeto a destacar prende-se com a flexibilização do currículo (i.e., possibilidade de escolha entre os regimes de estudo a tempo parcial e integral<sup>6</sup>) (European Commission/EACEA/Eurydice, 2018), que torna este nível de ensino mais apelativo aos estudantes que conciliam diferentes esferas da vida, como é o caso dos estudantes-trabalhadores. Num estudo efetuado por Martins e colaboradores (2018), pode-se perceber que a percentagem de estudantes envolvidos em cursos de regime a tempo parcial sobe de 17.5% para 24%, quando se consideram os estudantes com atividade laboral entre uma a 20 horas semanais, e para 62% o número de estudantes que trabalham acima das 20 horas semanais.

Em síntese, conclui-se que as crescentes exigências impostas pela sociedade de informação, junto com a reforma do ensino superior, contribuíram para a crescente heterogeneidade da população estudantil que hoje se observa. Assim, para que as instituições de ensino superior estejam capazes de continuar a sua reforma, cumprindo objetivos europeus e nacionais tais como aumentar em 40% os graduados entre os 30-34 anos (Eurostat, 2020; Macedo, 2017), introduzir uma cultura informática, através da disponibilização de mais cursos em ensino online (Gaebel et al., 2014), e assegurar uma educação inclusiva e com qualidade (Organização das Nações Unidas, 2018), é importante incorporar uma visão holística dos seus estudantes.

## **2. Desafios na transição para o ensino superior**

A heterogeneidade da população universitária permite que estudantes de diferentes meios, com diferentes preocupações, necessidades, aspirações e experiências de vida, interajam. Como resultado, aquando a entrada no ensino superior, diferentes estudantes precisarão lidar com diferentes tarefas de desenvolvimento. Aqueles estudantes que se situam entre os 18 e os 24 anos, numa fase de adolescência tardia, por norma, ainda se deparam com questões como “Quem sou eu?” e “Qual o

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<sup>5</sup> População apoiada pelo grupo de trabalho GTAEDES (<https://www.gtaedes.pt/o-gtaedes/>) e cuja possibilidade de ingresso foi formalmente reconhecida pela Portaria n.º 199 – B/2016

<sup>6</sup> Regimes implementados em 2006 pelo Decreto-Lei n.º 74/2006

significado da vida?”. Estes estudantes sentem-se no limbo entre a fase da infância e da idade adulta. As principais necessidades passam pelo envolvimento em atividades de exploração e experimentação, com o intuito de desenvolver uma identidade individual, um maior sentido de autonomia e de moralidade (i.e., consciência dos processos políticos, sociais e culturais, optando por respeitar o que é socialmente aceite ou agir contra a lei, percebendo as consequências das ações tomadas), bem como, comprometer-se com uma determinada escolha de carreira (Hartung, 2021; Newman & Newman, 2015). Este período tende a ser caracterizado por altos níveis de ansiedade (Newman & Newman, 2015).

Por sua vez, os estudantes no início da idade adulta (24-34 anos), estão mais focados no desenvolvimento de relações íntimas e na gestão de papéis de vida (i.e., articulação entre as responsabilidades parentais, laborais, estudantis e outras, Newman & Newman, 2015). Para muitos, esta fase coincide com a entrada no mercado de emprego, podendo levantar questões acerca da competência individual para desempenhar determinada atividade (e.g., posso ter sucesso neste papel profissional?) ou dúvidas acerca do estilo de vida desejado (e.g., que tipo de estilo de vida quero adotar?) (Kram, 1985).

Quanto aos estudantes adultos de meia idade (34-60 anos), as preocupações centram-se na manutenção e/ou expansão da sua rede social, bem como, no envolvimento em atividades que contribuam para o desenvolvimento pessoal (Newman & Newman, 2015). À semelhança dos estudantes no início da idade adulta, também estes priorizam o papel do trabalhador por relação ao papel de estudante. Dado o período alargado desta etapa de desenvolvimento, os adultos de meia idade que ingressam no ensino superior, podem encontrar-se em diferentes momentos da sua carreira. Uns podem estar focados na consolidação dos sucessos de carreira já alcançados, outros podem demonstrar vontade de evoluir para níveis superiores da sua carreira, outros questionam-se sobre o percurso de carreira traçado até ao momento, e outros ainda, procuram renovar conhecimentos e competências para se destacarem na posição laboral atual (Hartung, 2021).

Ainda que estes estádios de desenvolvimento devam ser interpretados como um processo contínuo e dinâmico (e.g., um indivíduo de meia idade pode reviver tarefas características do início da idade adulta ou da adolescência tardia) (Hartung, 2021), esta perspetiva permite compreender porque um estudante jovem estará mais focado em comprometer-se com determinada escolha vocacional, e um estudante maduro estará mais focado em desenvolver uma identidade enquanto estudante, e em consolidar responsabilidades (e.g., Hartung, 2021; Soares, 2016; Valadas et al., 2016). Esta heterogeneidade pode ser vantajosa do ponto de vista desenvolvimentista, pois teremos no mesmo espaço pessoas com diferentes narrativas de vida, a partilhar ideias e experiências. Ao mesmo tempo,

porém, uma tal heterogeneidade pode igualmente tornar a trajetória de cada um mais difícil, motivando intenções de abandono (Álvarez-Pérez & López-Aguilar, 2020).

A trajetória vivida pelo estudante no ensino superior deve permitir-lhe construir possíveis configurações identitárias, tanto no papel de estudante, como de colega e profissional, assim como, elaborar um projeto de vida e adotar comportamentos que o/a preparem para o percurso de carreira desejado (Gazo & Romero-Rodriguez, 2019). Porém, para que tal seja possível, a adaptação do estudante é fundamental, seja à entrada, como ao longo do percurso académico (Alcaraz et al., 2019; Almeida et al., 2008; Gazo & Romero-Rodriguez, 2019; Rotem et al., 2021). Segundo a literatura, a transição para o ensino superior é definida como um processo complexo e multidimensional (e.g., Almeida et al., 2000; Álvarez-Pérez & López-Aguilar, 2020). Trata-se de um processo, umas vezes, marcado por sentimentos de ansiedade, depressão e solidão, outras vezes, marcado por sentimentos de realização, alegria e otimismo (e.g., Lopes, 2019; Ricks & Warren, 2021; Valadas et al., 2016).

A maior ou menor capacidade de adaptação dos estudantes depende, em parte, da capacidade para lidar com quatro desafios principais: (1) desafios de cariz académico (e.g., adaptação a novos ritmos e métodos de aprendizagem e estudo, sistemas de avaliação; gestão de horários; autorregulação da aprendizagem; identificação com cultura e valores da instituição de ensino superior); (2) desafios de cariz social (e.g., (re)estabelecer relações maduras e de confiança com pares, professores, familiares e figuras de autoridade, lidar com a separação de ente-queridos no caso de alunos que mudam de cidade); (3) desafios de cariz pessoal e emocional (e.g., gestão emocional, desenvolvimento de autonomia, conhecimento de si e do mundo, gestão de diferentes papéis de vida, gestão situação financeira, encontrar residência); e (4) desafios de cariz vocacional (e.g., ajustamento de expectativas face ao curso; identificação e compromisso com o curso, por vezes posto em causa pela política de *numerus clausus* que dificulta a entrada dos estudantes na primeira opção) (e.g., Almeida et al., 2008; Almeida et al., 1999; Araújo et al., 2014; Carreira & Lopes, 2019; Casanova, 2018; Gazo & Romero-Rodriguez, 2019; Mestan, 2016; Movimento Associativo Estudantil, 2016; Ricks & Warren, 2021; Soares et al., 2006; Soares, 2016; Valadas et al., 2016). A par destes desafios, os estudantes deparam-se ainda com mudanças de desenvolvimento típicas que podem influenciar a forma como estes desafios são percecionados e vividos (Soares et al., 2006).

A (in)capacidade para os estudantes lidarem com todos estes desafios, pode determinar a escolha entre persistir<sup>7</sup> ou abandonar<sup>8</sup> o curso. Segundo a literatura, a dificuldade para o estudante se integrar a nível social, académico (Lopes, 2019; Tinto, 1975), se envolver ativamente em atividade curriculares e extracurriculares (Álvarez-Pérez & López-Aguilar, 2020; Astin, 1984), perceber a presença de apoio por parte da família, pares e professores (Araújo & Almeida, 2014; Bean, 1980; Gazo & Romero-Rodriguez, 2019; Soares, 2016), bem como, a carência de recursos individuais (e.g., motivação intrínseca, autoconfiança, capacidade para lidar com a pressão, competências sociais) (Bean & Eaton, 2001; Tinto, 2017), constituem barreiras que motivam o estudante a abandonar o curso.

Entre os estudantes, um grupo particularmente vulnerável a estes desafios, são os estudantes-trabalhadores, justificando o maior risco de abandono entre este grupo (e.g., Almeida et al., 2008; Gazo et al., 2019; Hauschildt et al., 2018; Lopes, 2019; Sánchez-Gelabert & Andreu, 2017). Isto porque, ao contrário dos seus pares, os estudantes-trabalhadores acumulam, pelo menos, mais um papel de vida [i.e., trabalhador(a)], o que pode tornar o equilíbrio entre papéis de vida mais exigente (e.g., Carreira & Lopes, 2019; Creed et al., 2022; Gazo et al., 2019; Sánchez-Gelabert & Andreu, 2017).

Em Portugal, nos anos letivos 2020/21 e 2021/22<sup>9</sup>, a população de estudantes identificados como estudantes-trabalhadores rondava, respetivamente, os 7.3% e 7.9% (DGEEC, 2022). Contudo, estes dados apenas se referem a estudantes com estatuto legal de estudante-trabalhador. Outros dados, a nível europeu, indicam que, em 2021 a percentagem de estudantes-trabalhadores era de 49%, não especificando as condições deste grupo (ex. ter ou não estatuto) (Hauschildt et al., 2021). Não obstante, é possível constatar dois aspetos neste relatório. Se por um lado, a percentagem destes estudantes está a aumentar nas instituições de ensino superior portuguesas, por outro, esta percentagem está aquém da média da União Europeia, possivelmente, pela falta de preparação destas entidades, ainda, para acolher e integrar este público (OECD, 2022).

Segundo a literatura, o grupo de estudantes-trabalhadores divide-se entre os estudantes que trabalham e os trabalhadores que estudam (Berker et al., 2003; Carreira & Lopes, 2020). Para os primeiros, o estudo é prioritário face ao trabalho. Em particular, no caso português, estes jovens estudantes parecem estudar a tempo integral e trabalhar a tempo parcial, num emprego não qualificado e, por norma, não relacionado com o curso académico (Carreira & Lopes, 2020). O tempo investido na

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<sup>7</sup> Estudantes matriculados no ano letivo seguinte e na mesma universidade, estando a repetir o curso ou passado para o ano seguinte (Casanova et al., 2018).

<sup>8</sup> Na literatura frequentemente associado ao estrangeirismo *dropout*. Este conceito não tem uma única definição (Casanova et al., 2018). Podem incluir-se aqui os estudantes que cancelaram a sua inscrição na instituição de ensino superior ou a matrícula no ano letivo (Casanova et al., 2018; Movimento Associativo Estudantil, 2016). A este termo surgem ainda associados o conceito de *stopout* (pausa nos estudos por tempo igual ou inferior a um ano, havendo intenção de retomar) e *optout* (intenção de mudar de curso e/ou instituição) (Casanova, 2018).

<sup>9</sup>Anos letivos que incluíram o período de recolha para os estudos empíricos da presente dissertação.

academia por este grupo de estudantes pode ser motivado pelo benefício de encontrar uma carreira profissional em linha com os seus interesses, ou por pressões sociais e familiares (Carreira & Lopes, 2020). Por seu turno, as motivações para procurar emprego estão essencialmente relacionadas com o benefício de conseguir dinheiro extra para despesas pessoais, académicas e familiares, bem como, ganhar experiência de trabalho (e.g., Carreira & Lopes, 2020; Furey, 2020; Gamboa et al., 2018; Pinto & Salume, 2013). Por se encontrarem numa fase essencialmente exploratória (Hartung, 2021; Newman & Newman, 2015), é comum estes estudantes valorizam as oportunidades de experimentação em contexto real de trabalho. A possibilidade de desempenhar diferentes papéis confere-lhes um maior sentido de controlo e confiança fase ao seu percurso de carreira, permitindo-lhes tomar decisões objetivas e realistas (Paixão, 2020; Savickas, 2021).

Enquanto isso, o grupo de trabalhadores que estudam tendem a apresentar-se como uma população madura de profissionais, com um vasto portefólio de competências e experiências laborais (Carreira & Lopes, 2020; Mendes et al., 2006). Em alguns casos, estes estudantes podem ainda apresentar responsabilidades familiares relacionadas com a parentalidade, trabalho doméstico ou estado civil (e.g., união de facto, casado/a) (Carreira & Lopes, 2020; Mendes et al., 2006). Para estes, o trabalho é prioritário face ao estudo, já que estas ocupações desempenham um papel financeiro e sociopsicológico na vida dos indivíduos (Carreira & Lopes, 2020; Furey, 2020; Kubo & Gouvêa, 2012). As motivações para (re)ingressar na carreira académica podem justificar-se por pressões do mercado de emprego, pelo desejo de finalizar uma formação; pelo benefício de melhorar o estatuto de emprego (e.g., melhor salário, melhor reforma); pelo mero desejo e satisfação pessoal, ou ainda, para encontrar um novo percurso profissional (e.g., Carreira & Lopes, 2020; Hartung, 2021; Lopes & Carreira, 2017; Newman & Newman, 2015; OECD, 2013; Pabollet et al., 2019; Tetteh & Attiogbe, 2019).

Deste modo, compreende-se que também no grupo de estudantes que conciliam trabalho e estudo, existe uma grande heterogeneidade. Porém, apesar de as preocupações e necessidades destes indivíduos serem diversas, as motivações para (re)ingressar na academia podem ser, para ambos, tanto intrínsecas (e.g., interesse próprio) como extrínsecas (e.g., pressões impostas pela sociedade).

Neste panorâma, a literatura tem vindo a demonstrar que, uma melhor adaptação ao ensino superior depende, em parte, da escolha autónoma e comprometida do estudante para realizar determinado curso. Isto porque, um estudante intrínsecamente motivado, será um estudante mais envolvido nas atividades académicas, o que se poderá refletir numa maior satisfação e melhor rendimento (e.g., Carreira & Lopes, 2020; Cinamon, 2018; Ryan & Deci, 2019; Yu et al., 2018).

Para além disso, ter que conciliar estudo e trabalho exige ao indivíduo a capacidade para gerir diferentes papéis. A natureza dessa gestão pode acarretar tanto consequências positivas, como negativas. Por exemplo, quando os papéis de estudante e trabalhador competem pelo fator tempo, mais conflito é observado (Greenhaus & Beutell, 1985). Em Portugal, o tempo médio necessário para alocar a atividades letivas e de estudo individual num grau de licenciatura, por exemplo, ronda as 42 horas semanais (European Commission, 2017). Assim, se considerarmos um estudante que trabalhe pelo menos as 35h horas semanais, podemos concluir que o capital de tempo disponível para se dedicar ao estudo e outras atividades (e.g., lazer), por comparação a um estudante que não precisa de distribuir o seu tempo entre estudo e trabalho, será inferior. Como reflete no estudo de Burston (2017), o tempo que se dispende numa atividade dificilmente é recuperado de forma a ser utilizado numa outra, o que afeta negativamente a qualidade de vida do indivíduo.

De facto, a literatura é consensual em afirmar que mais horas despendidas no trabalho podem gerar menos horas de sono e estudo, maior cansaço físico e psicológico, níveis mais baixos de rendimento, envolvimento, planeamento e satisfação académica, de bem-estar, e ainda, aumentar a probabilidade de sintomatologia depressiva e ansiosa (Andrade, 2018; Chiang et al., 2020; Chu et al., 2020; Cinamon, 2016, 2018; Creed et al., 2015, 2022; Gopalan et al., 2019; Mounsey et al., 2013; Osma et al., 2019; Regalo & Almodóvar, 2013; Tessema et al., 2014). Contudo, salienta-se a falta de acordo quanto ao ponto de corte a partir do qual se pode considerar que as horas trabalhadas trarão resultados negativos para a vida do indivíduo.

Adicionalmente, ao analisar a literatura que compara estudantes tradicionais, que podem escolher quanto tempo despendem no estudo, com estudantes-trabalhadores, emergem diferenças significativas. Estes últimos tendem a apresentar mais problemas de saúde (e.g., ansiedade, exaustão emocional) e piores níveis de rendimento e satisfação académica, quando comparados com os seus pares que não trabalham (Mounsey et al., 2013; Santana & Salcedo, 2013; Silva et al., 2016; Tessema et al., 2014; Tetteh & Attiogbe, 2019). Isto parece indicar que aquele grupo tende a ser mais vulnerável do ponto de vista da adaptação e sucesso académico (Gazo et al., 2019), o que pode justificar a sua maior tendência para o abandono (Hovdhaugen, 2015; Lopes & Carreira, 2018).

Por seu turno, a perceção de suporte social e a congruência trabalho-estudo são dois fatores que parecem facilitar esta gestão de papéis de vida. No que respeita ao suporte, este pode manifestar-se tanto em termos financeiros, emocionais, como académicos (e.g., Byl, 2019; Cinamon, 2016; Maier & Mattos, 2016; Pinto & Salume, 2013; Wyland et al., 2015). A congruência trabalho-estudo torna-se vantajosa pela facilidade em transferir conhecimento do estudo para o trabalho e vice-versa (Chu et al.,

2020). A estes dois fatores, acresce as competências de carreira que cada indivíduo tem ao seu dispor (e.g., planeamento, controlo) (Chu et al., 2020; Cinamon, 2016; Creed et al., 2015; Osma et al., 2019). A disponibilidade e interação entre estas variáveis, desde as exigências de tempo, aos recursos individuais, poderá justificar as diferenças encontradas na literatura quanto à melhor ou pior adaptação dos estudantes-trabalhadores a um curso superior (e.g., Chiang et al., 2020; Cinamon, 2016, 2018; Gopalan et al., 2019). Para os devidos efeitos, quando a gestão entre papéis de vida é eficaz, são encontrados resultados positivos. Especificamente, os estudos demonstram relações positivas e significativas com o bem-estar, a satisfação com a vida, o envolvimento nos estudos e o rendimento académico (e.g., Chu et al., 2020; Cinamon, 2016, 2018; Creed et al., 2015). Neste sentido, podemos concluir que a promoção de competências de carreira (e.g., planeamento) e de uma rede de suporte, terá um papel facilitador da adaptação académica.

Por este motivo, consideramos necessário abordar em detalhe dois referenciais teóricos úteis para compreender os processos de adaptação à carreira em diferentes grupos de estudantes do ensino superior: a teoria sociocognitiva de carreira (Lent et al., 1994; Lent & Brown, 2008, 2013) e a teoria de construção de carreira (Savickas, 2005, 2013, 2021). Tratam-se de dois quadros de referência focados em identificar variáveis predictoras e os resultados inerentes à gestão pessoal de carreira. Quer a teoria sociocognitiva da carreira, quer a teoria da construção da carreira, constituem bons exemplos dos avanços observados no seio da Psicologia Vocacional, a que faremos breve referência no ponto seguinte deste trabalho, com vista a um melhor enquadramento daquelas perspectivas.

### **3. Resposta aos desafios na perspectiva da Psicologia Vocacional**

#### ***3.1. A teoria sociocognitiva da carreira***

A teoria sociocognitiva da carreira (SCCT) parte de diferentes teorias, entre as quais, a teoria sociocognitiva de Bandura (Lent, 2021). Assim, no centro dos seus modelos, destacam-se três variáveis cognitivas, influenciadas por fatores pessoais (e.g., personalidade, género) e contextuais (e.g., suporte, barreiras). A primeira variável cognitiva designa-se por crenças de autoeficácia. Esta define-se como as ideias que cada um tem acerca da capacidade individual para desempenhar determinada ação. Na SCCT, estas crenças assumem um cariz específico ao domínio (e.g., autoeficácia na tomada de decisão). A segunda variável cognitiva designa-se por expectativas de resultado e incluem as crenças individuais acerca das consequências de determinada ação. Em conjunto, estas variáveis são moldadas por experiências de aprendizagem. Em particular, por quatro fontes de informação: as experiências de



mestria, a aprendizagem vicariante, a persuasão social, e o estado afetivo e psicológico como os sentimentos de ansiedade. Ao mesmo tempo, tanto a autoeficácia como as expectativas de resultado antecedem e explicam a formulação de objetivos, terceira variável da teoria. Estes objetivos espelham a intenção pessoal para executar determinada ação ou alcançar dado resultado (Lent, 2021).

Lent e colaboradores, em 1994, apresentaram a primeira proposta da teoria, acrescentando uma perspectiva dinâmica às teorias de carreira anteriores, como as teorias de ajustamento (e.g., teoria de Holland, 1959) ou as teorias desenvolvimentistas (e.g., teoria de Super, 1980). Assim, considerando elementos de teorias prévias, como o papel dos interesses no desenvolvimento de carreira (Holland, 1959), ou a gestão de papéis de vida (Hartung, 2021; Super, 1980), a teoria sociocognitiva da carreira acrescenta e destaca elementos de interação da pessoa com o meio, os quais explicam resultados de carreira (Lent, 2021). Simultaneamente, a teoria tem vindo a atualizar-se, de forma a melhor explicar os processos de desenvolvimento de carreira no mundo contemporâneo, marcado por contextos de carreira voláteis e incertos (Hirschi, 2018; Lent, 2013).

Neste sentido, o primeiro desenho da teoria considera três modelos: o modelo acerca do desenvolvimento de interesses, o modelo sobre escolhas vocacionais, e o modelo sobre o desempenho. Cada um destes modelos considera como preditores, características pessoais, contextuais e as três variáveis cognitivas, destacando como resultados, respetivamente, a formulação de interesses, que predizem as escolhas de carreiras, as quais, por seu turno, predizem o desempenho obtido num dado domínio de carreira (e.g., desempenho académico). Anos mais tarde, surge o modelo de satisfação, ou bem-estar, nos domínios escola/trabalho (Lent & Brown, 2006, 2008), colocando no lugar das variáveis resultado a satisfação. E, ainda, o último modelo conhecido até à data, o modelo sobre os comportamentos de gestão pessoal de carreira (Lent & Brown, 2013), o qual parte do primeiro desenho da teoria, agora, aprofundando os comportamentos de carreira que antecedem os resultados, como a performance de carreira. Em particular, este último modelo, marca um salto na teoria pois, contrariamente aos modelos prévios, que se centram em questões de conteúdo (e.g., “como é que as pessoas desenvolvem interesses vocacionais?”), esta nova proposta introduz questões de processo (e.g., “em que condições existe maior probabilidade de ocorrerem comportamentos de gestão pessoal de carreira?”). Desta forma, o último modelo da teoria permite compreender de que forma as pessoas enfrentam os desafios associados à preparação, entrada, ajustamento e transições (in)esperadas entre carreiras (e.g., escola-trabalho, trabalho-trabalho).

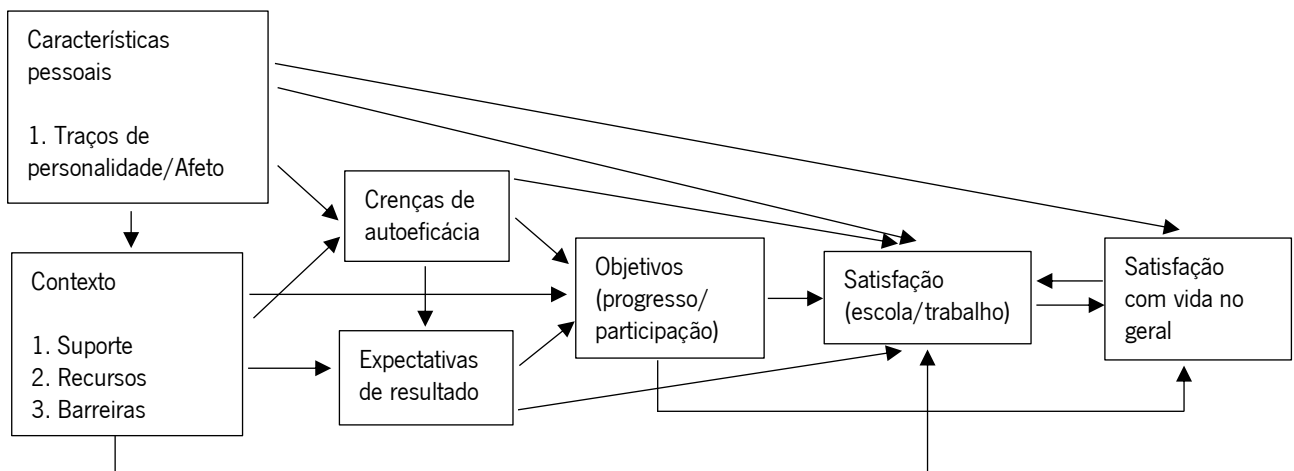
Considerando os desafios inerentes à jornada académica, as exigências acrescidas na gestão de papéis de vida entre estudantes-trabalhadores e o foco do presente trabalho na adaptação e bem-estar

dos estudantes, privilegiou-se os dois últimos modelos da teoria, o modelo sobre a satisfação ou bem-estar e o modelo sobre os comportamentos de gestão pessoal de carreira, detalhando-se estes de seguida.

Segundo o modelo sociocognitivo da satisfação (Lent & Brown, 2006, 2008), a satisfação é alcançada quando a pessoa apresenta predisposição para encarar a(s) tarefa(s) de forma positiva (i.e., traços de personalidade), dispõe de uma rede de suporte que lhe permite ultrapassar eventuais barreiras (i.e., características contextuais), acredita que é competente o suficiente para executar o que deseja (i.e., crenças de autoeficácia), espera consequências positivas das suas ações (i.e., expectativas de resultado), e percebe-se como agente da situação (i.e., objetivos) (figura 1).

**Figura 1**

*Modelo sociocognitivo da satisfação, ou bem-estar nos domínios escola/trabalho*



*Nota.* Adaptado de Lent e Brown (2008).

As relações entre estas variáveis têm sido validadas por diferentes estudos empíricos. Por exemplo, na revisão de literatura apresentada por Brown e Lent (2019), acerca dos estudos publicados sobre a teoria, os autores destacam que tanto a autoeficácia, como as expectativas de resultado são preditores da satisfação geral com a vida e da satisfação específica ao domínio (i.e., escola, trabalho). Além disso, os autores acrescentam que a força das relações entre as variáveis do modelo parecem diferir consoante o contexto. Por exemplo, no contexto académico, os estudos mostram relações mais fortes entre (1) o suporte e a autoeficácia; (2) o suporte e a satisfação académica; (3) a autoeficácia e os objetivos; (4) a autoeficácia e a satisfação académica; (5) os objetivos e a satisfação e, (6) entre o afeto positivo e a satisfação geral com a vida.

De facto, quando analisados individualmente, estudos empíricos com universitários de diferentes nacionalidades (e.g., Lent et al., 2017; Lent et al., 2012; Sheu et al., 2016) observam-se estas e outras relações consideradas pela teoria. Mais em detalhe, estudos de cariz transversal têm apontado para relações significativas do suporte para as crenças de autoeficácia, expectativas de resultado; satisfação académica e formulação de objetivos (Garriott et al., 2015; Lent et al., 2012; Lent et al., 2017; Sheu et al., 2016). Do afeto positivo para a perceção de suporte e de satisfação académica (Garriott et al., 2015; Lent et al., 2012; Lent et al., 2017). Das crenças de autoeficácia para as expectativas de resultado, formulação de objetivos, satisfação académica e satisfação geral com a vida (Garriott et al., 2015; Lent et al., 2012; Lent et al., 2017; Sheu et al., 2016). Segundo estes mesmo estudos, a ausência de crenças de autoeficácia, afeto positivo e estabelecimento de objetivos parece contribuir para um aumento dos sentimentos de stress (Lent et al., 2012; Lent et al., 2017). Ao nível da satisfação académica destacam-se como preditores as expectativas de resultado e a formulação de objetivos (Garriott et al., 2015; Lent et al., 2017). Esta dimensão da satisfação é importante, uma vez que contribui para o aumento da satisfação geral com a vida a curto e longo prazo (Garriott et al., 2015; Lent et al., 2012; Lent et al., 2017; Sheu et al., 2016), bem como, para o combate ao abandono académico (Brown e Lent, 2019). Não considerado pelo modelo, Gariott e colaboradores (2015) acrescentam ainda que variáveis externas, especificamente a motivação intrínseca dos universitários para estudar, pode moderar a relação entre a satisfação académica e a satisfação geral com a vida.

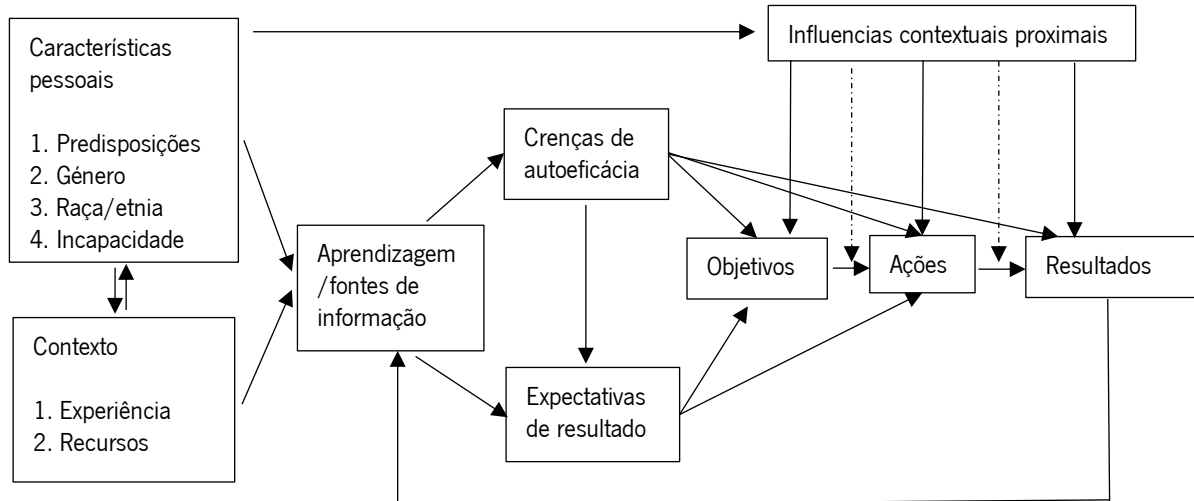
No geral, estudos focados no modelo sociocognitivo da satisfação, ou bem-estar, nos domínios profissional e educativo, apontam para a validade transcultural do mesmo (e.g., Lent et al., 2017; Lent et al., 2012; Rasdi & Ahrari, 2020; Sheu et al., 2016). Não obstante, tal como Brown e Lent (2019) destacam, existem variações quanto à força das relações entre variáveis. Não apenas quanto ao domínio escola/trabalho, mas também face ao contexto cultural. Segundo Sheu e colaboradores (2016), o suporte social parece desempenhar um papel de maior destaque sob a satisfação em culturas interdependentes (Sheu et al., 2016). Ao passo que a formulação e persecução de objetivos tem maior efeito em culturas independentes (Sheu et al., 2016).

Na mesma linha teórica, o modelo sociocognitivo dos comportamentos de gestão pessoal de carreira, indica que a presença de determinadas características pessoais (e.g., afeto positivo), junto com a existência de recursos sociais, crenças de autoeficácia e expectativas de resultado positivas, constituem condições adequadas à adoção de comportamentos de gestão pessoal de carreira (e.g., planeamento, exploração, Lent & Brown, 2013), os quais permitem desenvolver a carreira de forma

proativa e reativa (figura 2). Esta gestão será fundamental ao nível da empregabilidade e capacidade de tomada de decisão (Lent & Brown, 2013).

**Figura 2**

*Modelo sociocognitivo dos comportamentos de gestão pessoal de carreira*



*Nota.* Relações diretas representadas por setas sólidas. Efeito moderador representado por setas a tracejado. Adaptado de Lent e colaboradores (1994).

De facto, quer no estudo de revisão efetuado por Brown e Lent (2019), centrado nos modelos de satisfação e neste, sobre os comportamentos de carreira, quer noutros estudos empíricos, realizados com universitários, estas relações teóricas são verificadas. Em particular, um dado comumente encontrado na população em geral e nos universitários em particular, é a relação entre as crenças de autoeficácia e a certeza vocacional (Brown & Lent, 2019; Ireland & Lent, 2018; Lent et al., 2016). Quando considerada a população em geral, a revisão de meta-análises efetuada por Brown e Lent (2019) acrescenta que os comportamentos exploratórios podem ser preditos por crenças de autoeficácia, expectativas de resultado e pela perceção de suporte social.

Além disso, para adultos emergentes o objetivo de equilibrar papéis de vida, não só é afetado pelas crenças de autoeficácia, como por características pessoais (Roche et al., 2017). Em particular, pelo sexo. Segundo o estudo conduzido por Roche e colaboradores (2017), as mulheres apresentam crenças de autoeficácia e expectativas de resultado mais positivas, comparativamente aos homens. Tal poderá justificar as intenções mais fortes entre estas para equilibrar papéis de vida (Roche et al., 2017). Enquanto isso, estudos empíricos focados na população de universitários destacam (1) o papel do suporte ao nível da autoeficácia, expectativas de resultado, objetivos de exploração (Lent et al., 2016) e certeza vocacional (Ireland et al., 2018); (2) das experiências prévias de mestria ao nível da autoeficácia

e expectativas de resultado (Ireland et al., 2018); (3) destas últimas ao nível da formulação de objetivos de exploração (Ireland et al., 2018) e; (4) das crenças de autoeficácia ao nível das expectativas de resultado e objetivos de exploração (Lent et al., 2016).

Apesar da recência do modelo, na sua revisão de meta-análises, Brown e Lent (2019) destacam três aspetos. Primeiro, referem ser possível concluir acerca do bom ajuste do modelo. Segundo, apontam para a inter-relação entre as variáveis sociocognitivas (i.e., crenças de autoeficácia, expectativas de resultado, formulação de objetivos). Terceiro, destacam o contributo relevante do suporte social ao nível dos comportamentos de gestão pessoal de carreira.

Considerando estes resultados positivos, acerca da validade da teoria, em diferentes contextos e populações (e.g., Brown & Lent, 2019; Lent & Brown, 2019), é possível transpor os seus conceitos para a prática vocacional, formulando estratégias que permitam prevenir dificuldades relacionadas com a carreira (e.g., incerteza); solucionar problemas (e.g., baixo rendimento académico); e desenvolver interesses e competências de carreira (Lent, 2021; Lent & Brown, 2013). Refletindo sobre os pressupostos teóricos, percebe-se que para alcançar resultados de carreira positivos como a satisfação ou um bom desempenho académico, será necessário trabalhar características pessoais e contextuais, variáveis sociocognitivas (i.e., crenças de autoeficácia, expectativas de resultado), e a formulação de objetivos (e.g., Brown & Lent, 2019; Lent, 2021; Lent & Brown, 2019). Assim, partindo do racional sociocognitivo da carreira, o profissional de carreira poderá antecipar alguns cenários e estratégias para resolver o(s) problema(s) apresentado(s) pelo cliente.

Por exemplo, numa fase precoce, poderá ser necessário analisar se existem características pessoais (e.g., ansiedade generalizada, perfeccionismo) que estejam a potenciar resultados de carreira não desejados (e.g., baixo rendimento académico, incerteza, Lent, 2021; Lent & Brown, 2013). Ou ainda, qual o efeito de fatores contextuais (e.g., estereótipos de género) nas variáveis sociocognitivas que contribuem diretamente para resultados de carreira mais ou menos desejados (e.g., Garriott et al., 2015; Ireland & Lent, 2018; Lent, 2021). No caso do profissional decidir que é necessário trabalhar sob as características pessoais do cliente, como a ansiedade, estratégias de regulação emocional podem ser utilizadas (e.g., Lent, 2021; Lent & Brown, 2013). Não obstante, é necessário reconhecer as limitações enquanto profissional, já que algumas dessas características pessoais são mais estáveis (e.g., traço de conscienciosidade). Por seu turno, o trabalho sobre os fatores contextuais pode passar pela construção ou alargamento de uma rede de contactos, ou ainda, pela reestruturação cognitiva (e.g., Garriott et al., 2015; Lent, 2021; Lent & Brown, 2013), no sentido de fomentar uma visão otimista que diminua a perceção de barreiras como os estereótipos de género.

Ainda sobre a dimensão contextual, os modelos dos interesses, escolhas vocacionais e comportamentos de gestão pessoal de carreira, permitem antecipar uma situação particular. Os efeitos negativos que a pressão imposta por pares e/ou pais pode ter ao nível da tomada de decisão e subsequentes comportamentos de carreira (e.g., Garriott et al., 2015; Lent, 2021; Lent & Brown, 2013; Sheu et al., 2016). Entre estes efeitos Lent (2021) destaca o afunilamento das opções vocacionais. Como solução, o autor refere ser necessário começar por alargar o leque de opções consideradas. Isto significa, refletir junto do cliente sobre quais as opções “em consideração”, “ainda não exploradas” e aquelas “já eliminadas” (Lent, 2021). Posteriormente, quando o cliente chegar a uma decisão, será necessário trabalhar sob as competências de comunicação e negociação. Através, por exemplo, de atividades de *role-play*. Desta forma, Lent (2021) acredita ser possível que o cliente enfrente incongruências existentes entre o(s) seu(s) desejo(s) e o(s) desejo(s) de terceiros. Não obstante, tratando-se de um processo decisório, a teoria permite antever que independentemente dos problemas prévios apresentados pelo cliente (e.g., pressão social), será útil explorar outras barreiras que dificultem a implementação da decisão (e.g., Brown & Lent, 2019; Lent & Brown, 2019). Para além disso, em alguns casos pode ainda ser necessário refletir com o cliente sobre quais os recursos que este tem ao seu dispor (e.g., suporte social, financeiro), bem como, formular objetivos e planos de execução (Lent, 2021; Lent & Brown, 2013; Sheu et al., 2016).

No que se refere às variáveis sociocognitivas centrais à teoria, algumas situações e estratégias são igualmente apontadas. Por exemplo, perante baixas crenças de autoeficácia, Lent (2021) sugere adotar estratégias de reestruturação cognitiva. O que não elimina a necessidade de se avaliar as competências do cliente (Lent, 2021). Isto porque perante baixos níveis de competência, a teoria antecipa que o trabalho sobre as crenças de autoeficácia será insuficiente. Nesse caso, ao invés de fomentar crenças positivas de autoeficácia, o profissional deverá redirecionar o cliente para explorar opções de carreira do seu interesse e próximas às competências apresentadas (Lent, 2021). Quanto às expectativas de resultado, será útil começar por avaliar se estas partem de heurísticas gerais erradas. Desta forma, o profissional estará capaz de identificar o nível de realismo das expectativas criadas pelo cliente e agir em concordância. No caso de verificar expectativas irrealistas, o profissional poderá promover comportamentos de exploração e análise, ou rever experiências prévias de aprendizagem (Ireland & Lent, 2018; Lent, 2021).

### **3.2. A teoria de construção de carreira**

Desenvolvida no século XXI, a teoria de construção de carreira (Savickas, 2005, 2013, 2021), visa explicar quais os processos interpessoais e interpretativos através dos quais as pessoas constroem carreiras com significado. Considerando o atual contexto multicultural de economia global, o modelo da teoria postula que, para haver desenvolvimento e integração efetiva nos papéis de vida, a pessoa precisa estar consciênte de si, predisposta à mudança e ter estratégias autorregulatórias, que lhe permitam (re)direcionar e (re)significar percurso(s) de carreira (Savickas, 2013, 2021). Para o efeito, o autor do modelo introduz três perspectivas centrais do “eu”: eu enquanto ator, agente e autor (Savickas, 2013, 2021).

A primeira perspectiva aplica-se à fase da infância, na qual os processos de sociabilização ocorrem. Será através destes processos que a criança irá internalizar normas e valores culturais e familiares, bem como, desenvolver traços de personalidade. Podemos assim perceber, que esta primeira dimensão parte de uma visão diferencial (e.g., modelo de Holland). A diferença é que ao invés da pessoa se construir através da maturação de estruturas internas, Savickas considera uma auto-construção por interação com o meio. Mais tarde, quando a criança entra na escola, começa a adotar um papel de agente, segunda perspectiva. Isto significa que, a criança deixa de ser ator passivo, ou seja, um mero observador, para começar a autoregular e dirigir comportamentos de carreira. Algo particularmente útil em situações de transição (in)esperadas e (in)desejadas; tarefas de desenvolvimento vocacional (i.e., transições normativas como a passagem da escola para a universidade) e traumas (i.e., acontecimento imprevisível e indesejado como o encerramento da escola). A última perspectiva, o eu enquanto autor, ocorre quando a pessoa já está capaz de selecionar e organizar experiências de vida (micronarrativas) numa sequência cronológica e com significado (macronarrativas). Em conjunto, estas três perspectivas do eu, permitem-nos compreender o conteúdo das decisões de carreira (o que escolhem?), o processo (como?) e o porquê (qual o significado?) (Paixão, 2020; Savickas, 2013, 2021).

Em particular, quando é necessário responder a desafios de mudança, o modelo de construção de carreira descreve três forças adaptativas que permitem alcançar resultados de carreira adaptativos (Savickas, 2013, 2021). A primeira força designa-se por prontidão (*adaptivity*) e caracteriza-se pela predisposição individual em lidar com tarefas de carreira, transições e traumas (Savickas, 2013, 2021; Savickas & Porfeli, 2012). Assim, esta dimensão tem sido avaliada na literatura por medidas de traço, capacidade cognitiva, disposição afetiva, auto-estima e orientação para o futuro (e.g., Johnston, 2018; Öztemel & Akyol, 2020; Rudolph et al., 2017; Yıldız-Akyol & Öztemel, 2021). A segunda força designa-se por recursos de adaptabilidade (*adaptability*). Estes caracterizam-se por recursos psicossociais

autorregulatórios que auxiliam a pessoa a enfrentar situações de mudança, complexas e não familiares, que podem ameaçar a sua integração social. Estes recursos são parte do capital humano, construindo-se através de experiências de aprendizagem. Entre estes, Savickas (2005, 2013, 2021) destaca quatro.

O primeiro inclui a preocupação com o futuro, que motiva atitudes de planeamento e otimismo, combatendo a indiferença face à carreira. O segundo inclui o sentido de controlo interno que nos dá firmeza para tomar decisões, evitando sentimentos de indecisão ou proscritação. O terceiro inclui a curiosidade, ou seja, a necessidade de querer saber mais acerca de si e dos possíveis papéis que pode desempenhar. Este sentido exploratório de si no meio possibilita uma tomada de decisão informada e realista. Por último, o quarto recurso, inclui a confiança acerca das competências individuais para executar determinada ação ou escolha, mesmo na presença de dificuldades. Este sentido de autoeficácia geral para lidar com a mudança (Xu, 2020) é o que permite ao indivíduo avançar nos objetivos de carreira. Frequentemente, estes quatro recursos autoregulatórios são avaliados pela Escala sobre Adaptabilidade de Carreira, desenvolvida para o efeito (Savickas & Porfeli, 2012), ou medidas semelhantes (e.g., Johnston, 2018; Maggiori et al., 2017; Rudolph et al., 2017).

Por seu turno, a terceira força do modelo inclui as respostas ou comportamentos adaptativos (*adapting*). Estes comportamentos espelham cinco funções cíclicas (i.e., orientação para o problema, exploração de opções, estabelecimento na decisão, gestão da situação e libertação para nova mudança) que nos permitem resolver tarefas, transições ou traumas de carreira. Na literatura, os comportamentos adaptativos têm sido frequentemente avaliados por medidas individuais de planeamento, exploração, envolvimento ou tomada de decisão (e.g., Hirschi et al., 2015; Hirschi & Valero, 2015; Johnston, 2018; Nilforooshan, 2020; Šverko & Babarović, 2019). Não obstante, novos estudos começam a emergir com uma medida específica para avaliar esta dimensão do modelo (e.g., Öztemel & Akyol, 2020; Yıldız-Akyol & Öztemel, 2021). O Inventário de Construção de Carreira (Savickas et al., 2018) que inclui comportamentos e atitudes de exploração, tomada de decisão, formação do autoconceito vocacional, preparação para transições e o desenvolvimento de conhecimentos ou competências.

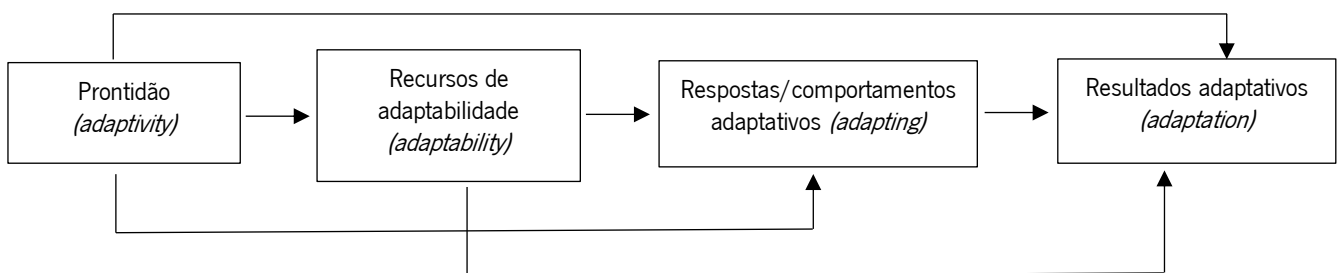
Em conjunto, estas três forças motrizes do modelo de adaptação de carreira (i.e., prontidão, adaptabilidade e comportamentos adaptativos) permitem predizer resultados adaptativos de desenvolvimento, satisfação e sucesso (Savickas & Porfeli, 2012). Em particular, resultados de envolvimento, compromisso, identidade, empregabilidade, bem-estar, satisfação académica, laboral ou satisfação com a carreira, entre outros (e.g., Johnston, 2018; Rudolph, Lavigne, & Zacher, 2017; Rudolph, Lavigne, Katz, et al., 2017).



Diversos estudos empíricos, inclusive com universitários, têm apontado para uma relação linear e sequencial entre as quatro dimensões do modelo. Por exemplo, Yıldız-Akyol e Öztemel (2021) observaram que universitários turcos com pontuações acadêmicas prévias positivas (prontidão), e recursos de carreira (adaptabilidade), envolvem-se em comportamentos e crenças adaptativas (respostas), os quais contribuem para uma maior satisfação acadêmica. O mesmo se observa no estudo de Nilforooshan (2020), ainda que com medidas diferentes. Entre universitário iranianos, a autora observou que o sentido de prontidão, medido pela proatividade e saliência do futuro trabalho, junto com recursos adaptativos, predizem comportamentos de envolvimento e autoeficácia na tomada de decisão, os quais geram resultados de satisfação acadêmica. Estes resultados são importantes já que a maior satisfação acadêmica aumenta a intenções de persistir no ensino superior (Wilkins-Yel et al., 2018), combatendo o abandono.

Enquanto isso, numa perspectiva de transição academia-trabalho, Soares e colaboradores (2021) mostram que mais recursos adaptativos, geram mais comportamentos de carreira, os quais permitem que os universitários se percecionem como mais empregáveis. Para além destas relações diretas e sequenciais, é ainda possível observar o efeito mediador da adaptabilidade na relação prontidão-respostas e das respostas na relação adaptabilidade-resultados, bem como, da adaptabilidade e respostas na relação prontidão-resultados (e.g., Nilforooshan, 2020; Savickas et al., 2018; Soares et al., 2021; Yıldız-Akyol & Öztemel, 2021). Este efeito mediador da adaptabilidade e das respostas adaptativas encontrado nos estudos empíricos suporta os postulados teóricos (figura 3)(Savickas, 2013, 2021; Savickas et al., 2018).

**Figura 3**  
*Modelo de construção de carreira*



*Nota.* Adaptação de Savickas et al. (2018)

Adicionalmente, o modelo considera o efeito que variáveis pessoais (e.g., sexo, idade) e contextuais (cultura) podem ter ao nível do desenvolvimento dos recursos adaptativos (Rudolph et al., 2017; Savickas & Porfeli, 2012). Isto significa que diferentes pessoas podem exibir diferentes níveis de adaptabilidade consoante as experiências de aprendizagem prévias. Por exemplo, a partir de dois estudos

com universitários, Hirschi e Valero (2015) conseguiram provar a existência de cinco padrões de adaptabilidade. Estes oscilam entre pontuações muito baixas a pontuações altas, nos quatro recursos de carreira. Conseqüentemente, os estudantes que exibiam menos recursos apresentavam mais dificuldades na tomada de decisão (respostas). Enquanto isso, os estudantes com mais recursos expressavam mais comportamentos de exploração e planejamento.

Assim, percebe-se a proximidade do conceito construtivista sobre adaptabilidade de carreira e o conceito sociocognitivo sobre autoeficácia (Xu, 2020). Ambos se desenvolvem por interação pessoa-meio e se distinguem pelas crenças positivas acerca da capacidade individual para resolver determinada tarefa (Savickas & Porfeli, 2012; Xu, 2020). Apenas há a destacar que, enquanto a adaptabilidade se apresenta como uma variável compósita de quatro recursos (Savickas & Porfeli, 2012), a autoeficácia se apresenta como uma variável unidimensional específica ao domínio (Xu, 2020).

Além disso, assim como na teoria sociocognitiva da carreira, também aqui existe forte suporte à validade do modelo de construção de carreira, pelo que é adequado aplicar os seus conceitos à prática de carreira. Neste caso, a prática inspirada na teoria de construção de carreira (TCC) exige que a pessoa esteja capaz de reviver experiências presentes e passadas, de forma a construir uma narrativa de vida coerente e com significado (Savickas, 2013, 2021). Esta capacidade de reflexão e (re)construção identitária depende, essencialmente, do desenvolvimento de recursos autorregulatórios, também designados por recursos de adaptabilidade. Tal como indicado pelos pressupostos teórico, estes recursos são construídos por interação da pessoa com o meio. Por outras palavras, o seu desenvolvimento é influenciado por características pessoais de traço (prontidão) e experiências de sociabilização. Neste último caso, Savickas (2013, 2021) dá particular ênfase às experiências de vinculação vividas durante a infância. Possivelmente, por estas serem o primeiro contato com o meio.

Para Savickas (2013, 2021), assim como Bowlby (1982), a criança pode desenvolver quatro esquemas vinculativos durante a infância, os quais influenciam comportamentos de carreira futuros. Uma vinculação segura gera pessoas autónomas e menos ansiosas, incentivando comportamentos de exploração e compromisso na adolescência. Uma vinculação ambivalente gera pessoas pouco autónomas e mais ansiosas, incentivando o compromisso vocacional sem exploração. Uma vinculação evitante, nas quais as expressões de medo e irritação da figura materna se transpõem para a criança, incentivam a indecisão e o evitamento de situações nas quais é necessário tomar decisões. Enquanto isso, na vinculação desorganizada o medo criado face à figura de vinculação transfere-se para outros domínios, entre os quais o domínio vocacional. Como resultado, na fase da adolescência o indivíduo terá dificuldade em resolver situações de indecisão. Neste seguimento, compreende-se que diferentes

peças, com diferentes experiências de vinculação, irão apresentar diferentes estratégias autorregulatórias de adaptação à carreira. Por exemplo, Savickas (2013, 2021) afirma que pessoas com vinculação segura irão procurar ativamente informação, ponderando antes de tomar qualquer decisão. Enquanto isso, pessoas com um padrão vincutivo ambivalente, terão tendência para ser passivas e se conformarem com decisões tomadas por terceiros. Assim, pessoas com experiências relacionais precoces que incentivam a autonomia com suporte, terão maior probabilidade de desenvolver recursos que permitam a adoção de comportamentos de carreira chave à adaptação. Mais precisamente, comportamentos de orientação, exploração, decisão, planeamento e resolução de problemas (Savickas, 2021).

Considerando o papel central que os recursos de adaptabilidade têm ao nível dos comportamentos de gestão pessoal de carreira (e.g., Hirschi & Valero, 2015; Savickas, 2021; Savickas & Porfeli, 2012), percebe-se a relevância de avaliar para intervir neste domínio. Para o efeito, o modelo de aconselhamento da TCC, também designado em inglês por *life-design*, divide a intervenção em quatro etapas (Savickas, 2013, 2021): (1) formulação do problema; (2) construção de micronarrativas; (3) desconstrução, re-construção e co-construção de macronarrativas; (4) consolidação da mudança (Savickas, 2011, 2021). Mais em pormenor, a primeira etapa dita que se avalie os recursos de adaptabilidade e se co-formule o problema do cliente. Aqui, será necessário que o profissional de carreira explore como o cliente percebe o problema, se já existiram tentativas prévias para o resolver, quais as suas causas e possíveis efeitos na vida quotidiana do cliente.

Na segunda etapa, serão exploradas micronarrativas de vida. Para tal, Savickas disponibiliza a “entrevista de construção de carreira”. Esta inclui questões sobre lembranças, modelos, interesses e lemas de vida. Desta forma o profissional poderá conhecer melhor o cliente. Cada uma destas questões serão discutidas na terceira etapa. Porém, antes dessa etapa o profissional de carreira deve ensaiar um primeiro rascunho, interpretando as micronarrativas do cliente e consolidá-las numa macronarrativa. Esta, será posteriormente analisada com o cliente, havendo espaço para reformulações. O objetivo final é que o cliente perceba que construiu ativamente uma história coerente e com significado, compreendendo onde se encontra e qual o seu papel nessa história, porque razão chegou até ali, e qual o passo seguinte para alcançar o que deseja. Desta forma, o cliente ganhará uma nova perspectiva sobre o problema, estando capaz de formular objetivo(s) e plano(s) de ação. Percebe-se assim, que apesar das diferenças nas estratégias de intervenção, tanto a teoria de construção de carreira como a teoria sociocognitiva da carreira procuram trabalhar crenças de competência, estados motivacionais para a ação, percepções contextuais de barreiras e recursos, e ainda, a capacidade para formular objetivo(s) e

plano(s) de ação (Lent, 2021; Lent & Brown, 2013; Savickas, 2013, 2021). Por último, a quarta etapa deste modelo construtivista de aconselhamento, implica rever o trajeto efetuado pelo cliente, tornando o processo consciente. Esta co-reflexão final ajudará o cliente a sentir-se otimista face ao futuro e motivado para executar os objetivos formulados (Savickas, 2021).

#### **4. Adaptação ao ensino superior: Modelo integrador em estudantes e estudantes-trabalhadores**

Na atual era da informação, ter um curso superior é uma mais valia. Ao indivíduo permite-lhe continuar a evoluir, tornando-se apelativo para o mercado de emprego (e.g., De Vos et al., 2021; Lo Presti et al., 2020; Tentama & Abdillah, 2019; Tomlinson, 2012). À sociedade, permite diminuir as taxas de desemprego e, conseqüentemente, as taxas de criminalidade, melhorando a produtividade do país (Duarte et al., 2019). Assim, torna-se relevante compreender a experiência académica dos estudantes, de forma a captar e reter os atuais e futuros recursos humanos do país (Alturki et al., 2020; Behr et al., 2020; Bücken et al., 2018; Goegan & Daniels, 2019). Isto, principalmente para aqueles que parecem apresentar mais desafios neste processo de adaptação, como é o caso dos estudantes-trabalhadores (Gazo et al., 2019; Hovdhaugen, 2015; Lopes & Carreira, 2018).

Para tal, as instituições de ensino superior têm apresentado indicadores que visam avaliar a qualidade dos serviços prestados (e.g., A3ES, 2010; Goegan & Daniels, 2019). Entre estes estão indicadores focados no estudante e na sua experiência académica (A3ES, 2010). Estes indicadores dividem-se entre medidas de cariz objetivo/quantificável e medidas de cariz subjetivo/experiencial. O primeiro conjunto integra medidas de realização (e.g., nota média sinal de semestre); medidas de resultado da aprendizagem (e.g., conhecimento geral – cultura, conhecimento específico – neurociências, ou competências gerais – pensamento crítico, competências específicas – formulação de caso clínico); e medidas de abandono ou persistência (e.g., taxa de graduação) (e.g., A3ES, 2010; Alturki et al., 2020; Araújo, 2017; Lopes & Carreira, 2017; Wunsch et al., 2021; York et al., 2015). O segundo conjunto integra medidas pessoais (e.g., confiança, bem-estar); medidas de estudo (e.g., perceção de eficácia, gestão de horários); medidas de sociabilização (e.g., rede de suporte); medidas de apreciação da instituição (e.g., apreciação da qualidade das infraestruturas e serviços existentes); medidas de desenvolvimento de carreira (e.g., certeza vocacional, exploração, estabelecimento de objetivos); e medidas relacionadas com o curso (e.g., satisfação com o curso, compromisso) (e.g., Araújo, 2017; Bücken et al., 2018; Prevatt et al., 2011; York et al., 2015). Entre esta variedade de indicadores, Goegan e Daniels (2019) salientam a importância de adotar uma visão holística. Isto significa que, é relevante

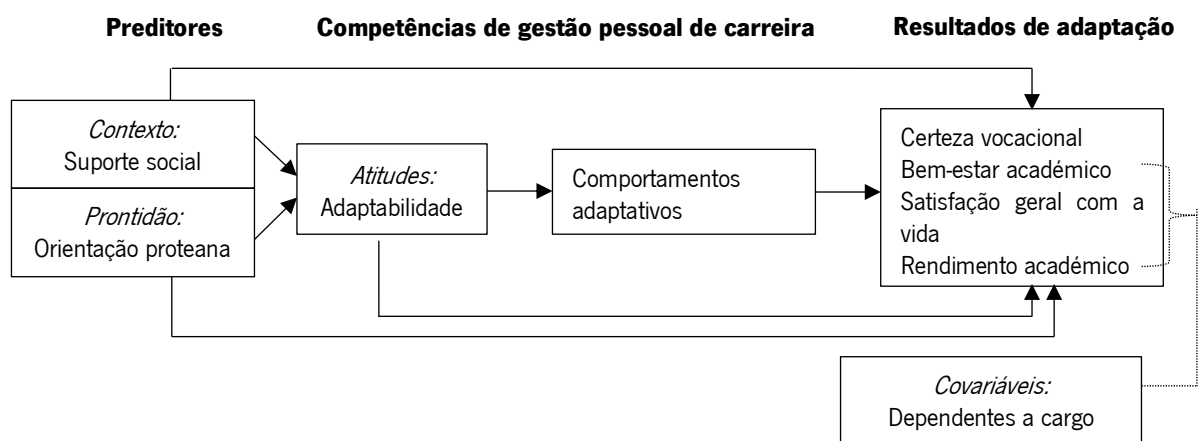
complementar a utilização de indicadores objetivos com indicadores subjetivos. Como tal, seguiremos esta recomendação.

No presente estudo, uma adaptação bem-sucedida ao ensino superior será espelhada por indicadores objetivos de realização (i.e., média do último semestre), e subjetivos de cariz pessoal (i.e., satisfação geral com a vida), académico (i.e., bem-estar académico) e vocacional (i.e., certeza vocacional). Em particular, estes indicadores foram selecionados pelo papel central que ocupam na disposição afetiva dos estudantes para permanecer no curso e respetiva instituição de ensino (e.g., Almeida et al., 2020; Alturki et al., 2020; Araújo, 2017; Bargmann et al., 2021).

Cruzando as perspectivas teóricas sobre adaptação ao ensino superior (Bean & Eaton, 2001; Gazo & Romero-Rodriguez, 2019; Tinto, 2017) e adaptação à carreira (Lent, 2021; Savickas, 2021), estes indicadores poderão ser observados na presença de variáveis de cariz pessoal e contextual favoráveis ao processo de adaptação de carreira. Em particular, variáveis como o suporte social percebido (contextual), herdado da teoria sociocognitiva e que se apresenta como o preditor com maior impacto estatístico no domínio académico (Lent, 2021; Taveira, 2019). Apesar do modelo construtivista também abordar o contexto, não especifica esta variável. Mais, as variáveis individuais de carreira (i.e., prontidão, atitudes e comportamentos face à carreira), herdadas da teoria de construção de carreira (Savickas, 2021) e para as quais, no caso particular das atitudes autorregulatórias, a teoria sociocognitiva não detalha. Assim, o modelo final (figura 4) procurou retirar das duas abordagens teóricas aquelas variáveis que se podem consagrar como as mais importantes para a adaptação académica no geral, e nos estudantes-trabalhadores, em particular (e.g., Byl, 2019; Chu et al., 2021). Isto é possível pela forte validação empírica demonstrada até à data para cada teoria (e.g., Brown & Lent, 2019; Rudolph et al., 2017), bem como, pelas semelhanças partilhadas (e.g., ambas destacam a importância da agência pessoal na gestão do percurso de carreira desejado) (Lent, 2021; Savickas, 2021).

**Figura 4**

*Proposta teórica explicativa da adaptação ao ensino superior*



O suporte social caracteriza-se por uma relação na qual há troca de recursos (e.g., emocionais, cognitivos) entre pelo menos dois indivíduos e essa troca ocorre numa rede relacional informal (e.g., pais, amigos) ou formal (e.g., professores), num período de tempo específico ou de forma continuada (Gazo & Romero-Rodriguez, 2019; Páramo et al., 2014; Ricks & Warren, 2021; Tinajero et al., 2020). No contexto académico, esta troca de recursos tem-se mostrado vantajosa por mitigar barreiras e desafios percebidos pelos estudantes e, conseqüentemente, fomentar o envolvimento e o sucesso académico (e.g., Alcaraz et al., 2019; Araújo et al., 2014; Lopes, 2019; Martinez-Lopez et al., 2019; Shu et al., 2020; Tinajero et al., 2020).

No contexto vocacional, o suporte social contribui para o desenvolvimento de recursos de adaptabilidade, crenças de autoeficácia, e adoção de comportamentos adaptativos de carreira, como o planeamento, a formulação de objetivos, ou a resolução de problemas (Angeline & Rathnasabapathy, 2021; Ataç et al., 2018; Chan, 2020; Ghosh & Fouad, 2017; Hu et al., 2021; Mahfud et al., 2022). Competências estas igualmente úteis à adaptação académica (e.g., Álvarez-Pérez & López-Aguilar, 2020; Casanova, 2018). Não obstante, a complexidade associada ao construto do suporte social justifica algumas incongruências encontradas na literatura. Por exemplo, Holt e colaboradores (2018) mostram que o suporte social fornecido por parte da figura materna melhora o funcionamento social e emocional. Enquanto isso, o suporte social fornecido pela figura paterna não produz efeitos estatisticamente significativos ao nível do funcionamento social, emocional ou académico. O suporte social fornecido por parte dos pares contribui para as três dimensões avaliadas (i.e., social, emocional, académica). Assim, podemos afirmar que diferentes fontes de suporte, e eventualmente o tipo de recursos disponibilizados, afetam de forma distinta diferentes domínios de adaptação.

A prontidão face à carreira caracteriza-se por um traço de personalidade flexível ou pela vontade ou predisposição para a mudança (Savickas & Porfeli, 2012). Por outras palavras, um indivíduo pronto é um indivíduo capaz de acomodar os desequilíbrios, através de ajustes efetuados ao contexto, ao próprio ou em ambos. Numa sociedade onde o conhecimento rapidamente se torna obsoleto e as transições de carreira são mais e frequentes (Abessolo et al., 2017; Greenhaus et al., 2019; Hirschi, 2018; Pabollet et al., 2019), esta prontidão é particularmente necessária. Entre os indicadores utilizados na literatura para avaliar este constructo, destacam-se medidas de personalidade, como os traços de conscienciosidade, abertura à experiência e exploração (e.g., Perera & McIlveen, 2017; Rudolph et al., 2017). Não obstante, um outro indicador possível, mais maleável e estatisticamente relacionado com estas variáveis estáveis de traço, é a orientação proteana de carreira (e.g., Briscoe & Hall, 2006; Hall et al., 2018; Perera & McIlveen, 2017; Wiernik & Kostal, 2019). Esta orientação face à carreira é privilegiada

face aos indicadores de personalidade, não apenas pelo seu cariz maleável, mas também, por ser um espelho dos atuais percursos encontrados no mercado de emprego (e.g., Hall et al., 2018; Hirschi & Koen, 2021; Wilhelm & Hirschi, 2019). Percursos estes caracterizados por uma gestão autónoma da própria carreira e onde os valores de progresso numa mesma organização são substituídos por valores individuais, de liberdade e de crescimento (Greenhaus et al., 2019; Hall, 2004).

Um indivíduo com uma orientação proteana face à carreira está melhor capacitado para enfrentar estes percursos, uma vez que assume uma posição ativa face à carreira, tomando decisões e agindo em consonância com valores de independência, autonomia e criatividade (e.g., Abessolo et al., 2017a; Abessolo et al., 2017b; Briscoe & Hall, 2006; Greenhaus et al., 2019). Por contraposto, alguém sem esta orientação, não estará capaz de definir prioridades e gerir autonomamente a carreira, esperando que terceiros desempenhem esse papel (Briscoe & Hall, 2006). A evidência empírica indica que esta orientação tem efeito positivo nos recursos de adaptabilidade, na implementação de comportamentos de carreira adaptativos (e.g., planeamento, conciliação de papéis), na clareza identitária, desempenho e compromisso organizacional, satisfação com a vida, entre outros (e.g., Baruch, 2014; Briscoe et al., 2012; Chui et al., 2022; Cortellazzo et al., 2020; Hirschi et al., 2017). Apesar de serem ainda poucos os estudos sobre este constructo no domínio académico, antecipam-se relações igualmente positivas com resultados de desempenho e satisfação académica, por semelhança aos resultados verificados em contexto organizacional (e.g., Briscoe et al., 2012; Herrmann et al., 2015; Hirschi et al., 2017).

A adaptabilidade de carreira caracteriza-se por um conjunto de recursos individuais desenvolvidos por meio de processos de socialização, iniciados ainda no seio familiar pelas figuras de vinculação (Savickas, 2013, 2021). Segundo Savickas, aqueles indivíduos com padrões de vinculação segura (i.e., o cuidador é sensível e responsivo às necessidades da criança, Bowlby, 1988) tenderão a apresentar um portefólio de recursos de adaptabilidade mais rico. Esta é uma preposição sustentada empiricamente por Ramos e Lopez em 2018. Além disso, Hirschi e Valero (2015) mostraram a existência de pelo menos cinco perfis de adaptabilidade entre estudantes universitários, desde o perfil de “adaptabilidade baixa”, no qual todos os recursos se apresentavam reduzidos, até ao perfil de “adaptabilidade alta”, no qual todos os recursos se apresentavam elevados. Estes recursos, segundo Savickas (2021), incluem: (1) a preocupação caracterizada pela orientação do indivíduo para o futuro, (2) o controlo caracterizado pela perceção individual sobre a capacidade de moldar o meio, (3) a curiosidade caracterizada pela propensão individual para se imaginar em diferentes papéis e procurar informação sobre si e oportunidades do meio, e (4) a confiança caracterizada por sentimentos de

autoeficácia na execução de tarefas vocacionais. Como consequência destas oscilações, diferentes comportamentos de carreira podem emergir.

Retomando, como exemplo, o estudo de Hirschi e Valero (2015), os estudantes de perfil “adaptabilidade baixa” evidenciaram uma maior dificuldade na tomada de decisão, menos comportamentos de planeamento, e de exploração, e um reduzido sentimento de autoeficácia. Por oposição, os estudantes de perfil “adaptabilidade alta” evidenciaram níveis mais baixos de dificuldade na tomada de decisão, mais comportamentos de planeamento e exploração, e um maior sentimento de autoeficácia. Em linha com estes resultados, outros estudos mostram que, de facto, os recursos de adaptabilidade fomentam comportamentos de carreira adaptativos (e.g., planeamento), bem como, facilitam o processo de tomada de decisão (Hirschi et al., 2015; Merino-Tejedor et al., 2016; Neureiter & Traut-Mattausch, 2017; Yıldız-Akyol & Öztemel, 2021).

No caso particular dos resultados de adaptação ao ensino superior, os estudos apontam ainda para efeitos positivos da adaptabilidade ao nível do rendimento e envolvimento académico (Merino-Tejedor et al., 2016; Öncel, 2014; Paradnikė & Bandzevičienė, 2016), satisfação académica (Duffy et al., 2015; Urbanaviciute et al., 2016; Wilkins-Yel et al., 2018) e vontade de continuar os estudos (Wilkins-Yel et al., 2018). Já numa perspetiva mais alargada, aqueles estudantes que possuem mais recursos, parecem apresentar também uma maior satisfação com a vida (e.g., Ghosh et al., 2019; Magnano et al., 2021; Veres & Kotta, 2021), coragem (Magnano et al., 2021) e uma menor perceção de barreiras (Veres & Kotta, 2021).

Os comportamentos de carreira adaptativos caracterizam-se por atividades como a tomada de decisão, exploração do meio, gestão de papéis de vida (e.g., estudo-trabalho), autopromoção, desenvolvimento de competências e/ou conhecimentos, entre outras. Além disso, consoante a abordagem teórica escolhida, este construto pode adotar diferentes nomenclaturas. Por exemplo, nos modelos construtivista e sociocognitivo da carreira que inspiraram o presente estudo, e ao qual permaneceremos fiéis nas nomenclaturas adotadas, este constructo é designado por comportamentos adaptativos (e.g., Lent & Brown, 2013; Savickas et al., 2018). Enquanto isso, Akkermans e colaboradores (2013) adotam o termo de competências de carreira, e outros autores, ainda, adotam o termo de estratégias de carreira (Greenhaus et al., 2019; King, 2003; Noe, 1996). Apesar destas diferenças na nomenclatura, as atividades incluídas coincidem, distinguindo-se essencialmente pela fase de desenvolvimento em que o indivíduo se encontra. Por outras palavras, é mais comum verificar-se atividades de exploração, planeamento, ou implementação de decisões (e.g., escolher curso), por exemplo, durante a adolescência (Lent & Brown, 2013; Park et al., 2017; Savickas et al., 2018; Šverko



& Babarović, 2019). Isto porque, é durante esta fase de desenvolvimento que surgem as primeiras decisões percebidas como determinantes para o futuro do indivíduo (e.g., “para que curso vou?”; “quero continuar a estudar?”). O que não significa que indivíduos em fases posteriores (e.g., idade adulta) deixem de se envolver nestas atividades (Hartung, 2021; Super, 1980). A diferença para a fase anterior da adolescência prende-se com a importância, que passa a ser dada às relações íntimas, bem como, o acréscimo dos papéis de vida (e.g., ser mãe/pai, trabalhador) (Newman & Newman, 2015), o que gera, no indivíduo, a necessidade de se envolver em outras atividades, como a gestão de papéis de vida ou a criação e expansão da rede de suporte (e.g., Lent & Brown, 2013; Noe, 1996).

Além disso, como durante a fase da adultez, os indivíduos estão preocupados em manter ou progredir no emprego (Newman & Newman, 2015), outras atividades que auxiliem neste propósito podem igualmente ser observadas (e.g., autopromoção, o envolvimento em programas de mentoria) (e.g., Greenhaus et al., 2019; Lent & Brown, 2013). Os resultados destas atividades, segundo a literatura, são diversos. Estudos com universitários têm mostrado que as atividades de exploração fomentam a cristalização do autoconceito vocacional, a percepção do eu como alguém empregável (Praskova et al., 2015), e melhoram a capacidade de tomar decisões (Chan, 2018; Park et al., 2017; Pérez-López et al., 2019; Yusran et al., 2021). Ainda que, neste último caso, as evidências nem sempre sejam concordantes. Aparentemente há casos em que a exploração pode gerar desconforto momentâneo, justificando sentimentos de stress (Praskova et al., 2015) e indecisão (Cheung & Arnold, 2014). Num outro estudo, Santos e colaboradores (2020) verificaram que a autopromoção resulta numa maior percepção de empregabilidade interna (i.e., percepção sobre a capacidade de manter emprego na atual instituição), ao passo que, o desenvolvimento de competências resulta numa maior percepção de empregabilidade externa (i.e., percepção sobre a capacidade de arranjar emprego noutra instituição).

Enquanto isso, numa perspetiva integrada do construto, os estudos indicam que os comportamentos de carreira explicam positivamente resultados de satisfação com a vida (Barroso, 2016), bem-estar-académico (Yıldız-Akyol & Öztemel, 2021), envolvimento no trabalho (Tokar et al., 2020) e nos estudos (Šverko & Babarović, 2019). Estudos focados na relação entre comportamentos de carreira e rendimento académico não foram encontrados, porém, podem antecipar-se relações positivas já que o maior envolvimento nos estudos contribui positivamente para esta última variável (Elphinstone et al., 2019; Holliman et al., 2018).

Assim, considerando a evidência teórica e empírica apresentada até ao momento, o presente estudo visa avaliar se as variáveis preditoras de contexto (i.e., suporte social percebido), pessoais motivacionais (i.e., orientação protena), e as competências de gestão pessoal de carreira (i.e.,

adaptabilidade, comportamentos adaptativos), explicam positivamente resultados objetivos (i.e., rendimento académico) e subjetivos (i.e., certeza, bem-estar académico, satisfação geral com a vida) de adaptação ao ensino superior. Pretende-se testar tais relações de forma direta, a partir dos preditores e competências para os resultados de adaptação, e de forma indireta, a partir dos preditores para os resultados adaptação, passando pelas competências de gestão pessoal de carreira (figura 4). Como controlo, incluiu-se ainda a variável do número de dependentes a cargo (caso aplicável). Isto porque a literatura indica que o papel de cuidador (e.g., mãe, pai) pode competir com os papéis de estudante ou trabalhador, pelo fator tempo (Burston, 2017), gerando conflito (Eurofound, 2020; Greenhaus & Beutell, 1985). Como resultado, esta variável poderá influenciar negativamente o rendimento, o bem-estar académico, e a satisfação geral com a vida do(a) estudante.

Este estudo será conduzido junto de universitários exclusivamente dedicados ao estudo e universitários que dividem o seu tempo entre estudo e trabalho. Dois grupos distintos ao nível das ocupações que gerem e, conseqüentemente, das necessidades de adaptação (Savickas, 2005, 2021), mas para os quais esperamos que o modelo proposto seja invariante. Isto porque, procuramos incluir no modelo, as variáveis que se apresentam como centrais para a adaptação de ambos os grupos, de modo a alcançar um racional suficientemente inclusivo e geral para orientar práticas de carreira no ensino superior, considerando os escassos recursos humanos e de tempo, por vezes observados nestas instituições de ensino.

## **5. Metodologia aplicada**

De forma a conduzir o teste ao modelo teórico proposto, foram conduzidos quatro estudos. Estes integram o corpo empírico da presente dissertação e foram aprovados pela Comissão de Ética para a Investigação em Ciências Sociais e Humanas da Universidade do Minho (CEICSH 093/2021).

Os referidos estudos espelham duas etapas do projeto de investigação. A primeira etapa, caracterizada por estudos de validação de medidas e, a segunda etapa, caracterizada pelo teste ao modelo teórico. Em particular, a primeira etapa integra o estudo 1 de validação da Escala sobre Orientação Proteana (EOP, variável preditora no modelo teórico proposto), o estudo 2 de validação da versão reduzida da Escala sobre Adaptabilidade de Carreira (EAC) e o estudo 3 de validação da versão reduzida do Inventário sobre Construção de Carreira (ICC) (variáveis intermédias no modelo teórico proposto). Esta etapa é relevante e necessária uma vez que as análises de equações estruturais, utilizadas no estudo 4 de teste ao modelo teórico, partem do modelo de medida (i.e., estabelece relações

entre variáveis observáveis/itens e variáveis não observáveis/construtos) para avaliar o modelo estrutural (i.e., estabelece relações apenas entre variáveis não observáveis/construtos) (Byrne, 2016).

Além disso, a escolha de validar aquelas escalas justifica-se pelos dados recentes apontados pela literatura. A validação da EOP (Baruch, 2014) junto de universitários portugueses, procurou responder às limitações (e.g., ambiguidade) da escala de Briscoe e colaboradores (2006), desenvolvida para avaliar o mesmo construto e validada para a população portuguesa por Marques (2017). A escala de Baruch (2014) também inclui metade dos itens (i.e., 7 itens) da escala de Briscoe e colaboradores (2006) (i.e., 14 itens), o que se torna vantajoso em protocolos longos como o do estudo 4. Isto porque, para o estudo 4 foi necessário complementar as questões sociodemográficas (e.g., idade), académicas (e.g., média do último semestre) e ocupacionais (e.g., horas semanais destinadas ao emprego) com medidas que avaliassem cada componente do modelo teórico proposto (e.g., suporte social).

Os estudos de validação da EAC (estudo 2) e do ICC (estudo 3), permitiram igualmente introduzir no contexto português a versão reduzida e mais atual da respetiva escala. Em particular, o estudo 2 permitiu substituir a EAC de 24 itens, validada por Monteiro e Almeida (2015) numa amostra de universitários portugueses, pela versão de 12 itens, apresentada por Maggiori e colaboradores (2017) num estudo com adultos falantes de francês e alemão. Já o estudo três permitiu substituir o ICC de 25 itens, validado por Rocha e Guimarães (2012) numa amostra de universitários portugueses, pela versão de 18 itens apresentada por Savickas e colaboradores (2018) num estudo com estudantes americanos (secundário a universitário). Além disso, o estudo três permitiu seguir as recomendações mais recentes apontados por Savickas e colaboradores (2018). Segundo os autores, além da redução no número de itens foi necessário reformular a estrutura do inventário. Neste caso, a estrutura de cinco fatores (cristalização, exploração, tomada de decisão, capacitação, transição) foi substituída por uma estrutura com quatro fatores (cristalização, exploração, tomada de decisão, preparação = capacitação + transição), pela última apresentar melhores qualidades psicométricas.

O processo de recolha de dados para estes três estudos decorreu inteiramente *online*, de novembro de 2020 a fevereiro de 2021. Numa primeira fase, os estudos foram divulgados junto de núcleos e associações de estudantes, via email e redes sociais, apelando-se à participação e divulgação dos mesmos. Numa segunda fase, estes grupos de estudantes foram novamente contactados com a oferta de um *webinar* gratuito sobre gestão pessoal de carreira. O *webinar* iniciou-se com a apresentação do estudo e apelo à sua participação. No final todos os presentes receberam o certificado de participação no evento. Este segundo momento de recolha justificou-se pela necessidade de aumentar o número de participantes.

Para as análises pretendidas, um mínimo de 100 a 200 participantes eram necessários (Schumacker & Lomax, 2010). Em particular, os estudos incluíram análises à estrutura e consistência interna das medidas, bem como, análises por relação com outras variáveis. O teste à estrutura interna permite saber se a medida está a avaliar o construto pretendido e se a disposição entre itens-construto é concordante com a teoria que lhe serviu de base (validade interna). O teste à consistência interna permite saber quais dos itens formulados avaliam o construto pretendido (fiabilidade). A validade por relação com outras variáveis permite saber qual o grau de predição/relação entre as pontuações obtidas na medida em estudo e outras já estabelecidas (validade concorrente). Desta forma, conseguimos integrar testes à validade e fiabilidade das medidas o que oferece maior robustez aos estudos (Christensen et al., 2015).

Os protocolos de recolha de dados demoraram cerca de 15 minutos a ser preenchidos e incluíam questões sociodemográficas, a medida que se pretendia validar e outras que respondessem à validade concorrente. Em particular, o estudo de validação da EOP (estudo 1) incluiu duas medidas de orientação proteana, a que se pretendia validar e outra já estabelecida (versão portuguesa de Marques, 2017), uma medida de envolvimento nos estudos (versão portuguesa de Cadime et al., 2016), e outra sobre estratégias de carreira (versão portuguesa de Matias, 2013). O estudo de validação da EAC (estudo 2) conjugou medidas do protocolo de validação do ICC (estudo 3), com medidas de um outro protocolo, desenvolvido no mesmo ano para um estudo sobre trabalho digno em trabalhadores portugueses (Barroso, 2023). Assim, o estudo 2 incluiu a versão longa da medida sobre adaptabilidade de carreira (versão portuguesa de Monteiro e Almeida, 2015) e uma medida sobre identidade vocacional (versão portuguesa de Santos, 2010) do estudo 3, mais uma medida sobre satisfação geral com a vida (versão portuguesa de Lent et al., 2009). No caso do protocolo de validação do ICC (estudo 3), além das medidas sobre adaptabilidade e identidade vocacional, incluiu-se a medida de construção de carreira que se pretendia validar. A conjugação de dados para o estudo da EAC (estudo 2) foi possível pela ocorrência simultânea dos estudos na mesma unidade de investigação. Tal, possibilitou alargar o estudo da EAC – versão reduzida a universitários e trabalhadores portugueses, avaliando tanto o seu ajuste como a invariância nos grupos. Além de aumentar a robustez da análise, a inclusão destes grupos permitiu igualmente informar o estudo 4, de teste ao modelo sobre adaptação em estudantes e estudantes-trabalhadores, dadas as semelhanças nos papéis ocupacionais de estudo e trabalho partilhados pelos grupos.

Após terminar esta etapa, passou-se à etapa seguinte, de teste ao modelo teórico sobre adaptação (estudo 4). Este estudo incluiu a análise do ajuste das medidas aos dados, bem como, a

invariância destas nos grupos (i.e., estudantes e estudantes-trabalhadores). Ainda que três das medidas já tenham passado pelo teste de ajustamento (estudos 1, 2, 3), a nova recolha de dados para este último estudo tornou necessária a sua reanálise. Segundo a literatura, estes cuidados métricos são recomendados, para garantir que as eventuais diferenças, ou semelhanças, encontradas entre grupos, face ao modelo teórico a avaliar, não são melhor explicadas por questões metodológicas (e.g., Byrne, 2016; Dimitrov, 2017). Assim, só após cumpridos estes passos, é que se procedeu ao teste do modelo teórico, analisando-se o seu ajustamento e invariância nos grupos.

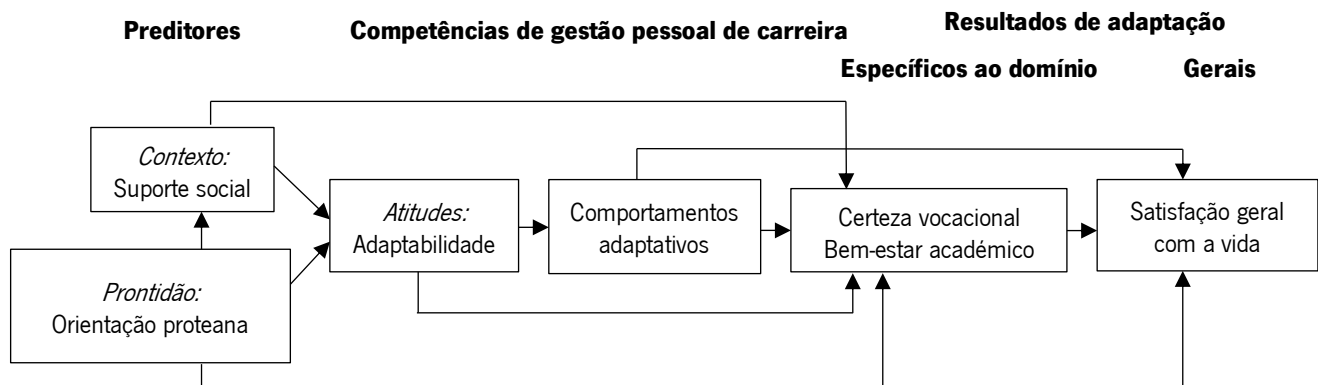
Nesta fase, formulou-se um modelo alternativo igualmente inspirado nas teorias sociocognitiva e de construção de carreira. Esta estratégia, segundo Byrne (2016), permite aumentar a probabilidade de se encontrar um modelo final substantivamente significativo e explicativo do fenómeno em estudo, com um ajuste adequado aos dados. Assim, caso se verifique um ajuste débil do primeiro modelo desenhado, contorna-se o processo exploratório de modificação e reestimação estatística do modelo, o qual é menos recomendado para o objetivo do presente estudo. Aqui, o que se pretende, é avaliar a validade do modelo teórico desenhado à luz da literatura do ensino superior e da Psicologia Vocacional, ao invés de gerar um modelo teórico a partir dos dados. Como resultado, o modelo alternativo introduziu algumas modificações, à luz do modelo sociocognitivo da satisfação académica (Lent & Brown, 2008): divide resultados específicos ao domínio (i.e., certeza vocacional, bem-estar académico) de resultados gerais (i.e., satisfação com a vida), sendo os primeiros preditores do segundo; introduz uma relação que parte da orientação de carreira proteana para o suporte social; e, elimina as relações que partem da adaptabilidade e comportamentos adaptativos para a satisfação geral com a vida.

Neste modelo, as variáveis acerca do rendimento académico e da (in)existência de dependentes a cargo não são consideradas pelo incumprimento do pressuposto da linearidade estatística, como será detalhado no estudo 4. Além da base teórica, estas modificações são igualmente suportadas por estudos empíricos. Inclusive, estudos recentes com universitários. Por exemplo, os resultados encontrados no estudo de Lee e Shin (2022), parecem indicar que, de facto, a satisfação académica ocupa um lugar antecessor à satisfação com a vida, relacionando-se de forma direta e significativa com esta. De igual forma, Hu e colaboradores (2021), observaram relação direta e significativa entre a personalidade proativa e a perceção de suporte social. Ainda que a variável preditora não corresponda ao constructo de cariz maleável, proposto no presente modelo (i.e., orientação proteana), a literatura tem-se mostrado coerente, ao indicar relações significativas entre este constructo e o da personalidade proativa (e.g., Briscoe et al., 2006; Hall et al., 2018; Stauffer et al., 2019; Wiernik & Kostal, 2019). Assim, podemos

afirmar, que tal como o modelo teórico inicialmente desenhado, também o modelo alternativo dispõe de sustentação teórica e empírica. Na figura 5 abaixo, apresenta-se o modelo alternativo.

**Figura 5**

*Proposta teórica alternativa explicativa do processo de adaptação ao ensino superior*



O processo de recolha de dados para este quarto estudo decorreu de novembro 2021 a fevereiro 2022, igualmente na modalidade *online*. Os núcleos e associações de estudantes foram contactados via email e redes sociais, apelando-se à participação e divulgação do estudo. Numa segunda fase, estas mesmas organizações foram novamente contactadas com a oferta de um *webinar* gratuito sobre gestão de tempo, o qual tinha início com a apresentação do estudo e pedido de participação, e terminava com a entrega do certificado de participação no *webinar*. Portanto, podemos constatar que o processo de recolha para este quarto estudo foi em tudo semelhante àquele aplicado para os estudos de validação 1, 2, e 3. Não obstante, estima-se que o preenchimento do protocolo tenha sido mais demorado ( $\cong$  20 minutos) pela inclusão de um maior número de questões. Em particular, o protocolo incluiu questões sociodemográficas (e.g., idade), académicas (e.g., média do último semestre), e ocupacionais (e.g., número de horas trabalhadas por semana), bem como, uma medida por construto: suporte social percebido (versão portuguesa de Lent et al., 2009), orientação proteana de carreira (versão validada no estudo 1), adaptabilidade de carreira (versão validada no estudo 2), comportamentos adaptativos (versão validada no estudo 3), certeza vocacional (versão portuguesa de Santos, 2007), satisfação geral com a vida (versão portuguesa de Simões, 1992), e bem-estar académico (medida cognitiva de satisfação académica – versão portuguesa de Lent et al., 2009– e medida afetiva de equilíbrio emocional – versão portuguesa de Almeida, 1998).

No próximo capítulo, apresenta-se uma descrição mais detalhada por estudo, seguindo-se um capítulo final de discussão e reflexão conjunta sobre os resultados obtidos.

## **ESTUDOS EMPÍRICOS**

## **1. Protean Career Orientation Scale: A Validation Study with Portuguese European University Students**

Soares, J., Taveira, M., & Silva, A.D. (2022). Protean Career Orientation Scale: A Validation Study with Portuguese University Students [Manuscript submitted for publication]. Escola de Psicologia, Universidade do Minho



## **Abstract**

The protean career orientation refers to career agentic and values-driven attitudes, in today's changing contexts. A protean career orientation evidences readiness for facing lifespan tasks and challenges in diverse work roles, contributing, for example, to university students' academic engagement and employability. Given the importance of this construct, there is a need for valid and reliable measures of protean career orientation. Our study aimed to analyze the internal and criterion-related validity and the reliability of a Portuguese language version of the Protean Career Orientation Scale. Participants were 407 Portuguese university students who responded to measures of protean career orientation, academic engagement, and career self-management strategies. Factorial analyses, Pearson correlations, and reliability indicators were computed. Adequate psychometric properties were found after one item deletion. Findings provide evidence for the scale's usage among groups of university students, whether for research or practical purposes. Nevertheless, more studies are needed.

*Keywords:* protean orientation, psychometric properties, university students, assessment

## **Introduction**

Protean career orientation is defined by Hall et al. (2018, p.134) as “a career attitude with two important dimensions, a focus on self-direction and an orientation toward intrinsic values”. According to them, self-direction refers to one’s agency and volition to pursue career goals, and intrinsic values provide meaning to the pursuit. In other words, a protean individual will be involved in a process of meaning-making (identity), response to change (adaptability), and intentional decision-making (agency), which fosters several career outcomes. For example, employability outcomes (e.g., job offers), career satisfaction, career self-management behaviors (e.g., networking), occupational and decision-making self-efficacy, and organizational commitment, among others (e.g., Baruch, 2014; Chui et al., 2020; Cortellazzo et al., 2020; Kaur & Kaushik, 2020; Stauffer et al., 2019). Overall, in the contemporary career literature, protean career orientation has been conceptualized as an intrinsic motivational factor, goal-oriented, which indicates the level of personal readiness to face whole-life career challenges, whether in a career role of citizen, student, worker, among other (e.g., Hirschi et al., 2020; Hirschi & Koen, 2021).

As a result, we may argue that this agentic orientation is crucial for adapting in today’s changing contexts (e.g., Briscoe & Hall, 2006; World Economic Forum, 2020), including for facing academic challenges (e.g., vocational, social) (e.g., Álvarez-Pérez & López-Aguilar, 2020; Gazo et al., 2019). According to the literature, more adapted students are also more satisfied and successful individuals, which allows for a better preparation to the labor market transition (e.g., Gazo et al., 2019; Kaur & Kaushik, 2020; Yıldız-Akyol & Öztemel, 2021). For example, Kim et al. (2023), found that adopting a protean career orientation predicts youngers’ academic commitment and performance, as well as, perceived future employability. Therefore, developing a protean career orientation during the academic journey is an asset. However, we need valid and reliable measures to assess students’ level of protean career orientation in order to better understand and explain the role of protean career orientation for life-career success and well-being.

### **Protean career orientation measures: An overview**

Briscoe et al. (2006) played a key role in developing the first protean career measure, the Protean Career Attitude Scale (PCAS). This scale comprises two dimensions. The values-driven dimension is characterized by individuals’ willingness to achieve a career path in line with personal values. The other, the self-directed dimension, is characterized by the individual’s proactivity in gathering information, developing goals, and making career decisions. Despite PCAS’ usefulness in extending studies on the subject, several problems have arisen regarding its validity and psychometric qualities. For example, one

study with Spanish people (Enache et al., 2012) and another with South Africans (de Bruin & Buchner, 2010) highlight the ambiguity of PCAS' values-driven dimension. According to these authors, most of the items in this dimension assumed that personal values and those of the company were opposites (e.g., de Bruin & Buchner, 2010; Enache et al., 2012; Gubler et al., 2014). Moreover, Gubler et al. (2014) argued that only item one from PCAS' self-directed dimension correctly mirrored this dimension definition.

Further criticism of PCAS includes its lengthy size (Baruch, 2014; Porter et al., 2016) and the absence of items conveying career issues of youth with little or no work experience (Borges et al., 2015). In response, Porter et al. (2016) suggested a shorter measure that includes seven of the 14 items of PCAS. Meanwhile, Baruch (2014) proposed a new 7-item unidimensional measure, the Protean Career Orientation Scale (PCOS). As for extending PCAS to other career realities, Borges et al. (2015) suggested rewriting some items and adding others, resulting in a 20-item version. Nevertheless, recalling the ambiguity of the PCAS values dimension (de Bruin & Buchner, 2010; Enache et al., 2012), we may affirm that Baruch's proposal will be the most promising. For instance, a recent meta-analysis developed by Kostal and Wiernik (2017) indicates that the most commonly used measures to assess one's protean career orientation are the Briscoe et al. (2006) PCAS and the Baruch (2014) PCOS. Still, other measures are also covered by the literature (e.g., Drenzo et al., 2015; Kruanak & Ruangkanjanases, 2014). However, these alternatives include items designed to respond to each study's goals, which limits a broader use. For example, Kruanak and Ruangkanjanases's (2014) protean career orientation measure includes items such as "I believe that having international experience is essential for my subsequent career success", which may not be suitable for individuals without international experience.

As a result, this metric heterogeneity may hinder the comparison and interpretation of different empirical studies on protean orientation (Gubler et al., 2014). Therefore, instead of proposing a new measure addressing Briscoe et al.'s (2006) weaknesses, we will consider the 7-items measure presented by Baruch (2014). This scale considers the original unidimensional definition of the protean career orientation construct (Hall, 1976), which answers the PCAS values-driven problems (e.g., Enache et al., 2012), making the measure less ambiguous. As a result, Baruch's measure could be a reasonable alternative for the short-bidimensional PCAS version proposed by Porter et al. (2016). Another aspect to highlight from the Baruch measure is that items do not seem to be exclusive to a specific, already developed career path (Cortellazzo et al., 2020). Therefore, Baruch also considers Borges et al.'s (2015) warning, increasing the measure's usability among different contexts and populations.

Baruch's measure has shown good psychometric qualities among workers and university students from several countries. Specifically, in his initial study, Baruch (2014) integrated several samples

of French students and English and Chinese workers. In these studies, the author found reliability indices above .70, and significant correlations of the measure with other constructs (e.g., organizational commitment, job satisfaction, performance). The same was later found for German university students (Herrmann et al., 2015) and Chinese employees (Ngo & Hui, 2018). Apart from measuring reliability, these authors also verified significant correlations with other constructs, such as career planning, work engagement, and self-efficacy. Meanwhile, Cortellazzo et al. (2020) considered the 5-items version, which does not include item 2 of employability nor item 3 of job search. According to Baruch (2014), these items can be excluded whenever the purpose of the study warrants it. Nevertheless, Cortellazzo et al. (2020) also found a reliability index above .70 in a sample of Italian university students. We may, therefore, conclude that the Baruch scale is reliable and present good criterion-related validity across different occupational and cultural groups. However, data on its internal validity is still scarce. To our best knowledge, only a Brazilian study explored the internal structure of the measure (Andrade et al., 2022). According to the authors, after two items exclusion (i.e., items one and three) and models' re-specification (i.e., error correlations impositions), adequate fit indicators were verified ( $\chi^2/df = 4.90$ , RMSEA = .11, TLI = .92, and CFI = .92), supporting PCOS unidimensionality. Nevertheless, considering the psychosocial nature of the protean career orientation construct, (Hall et al., 2018) further cross-cultural studies are needed. Analyzing the scale's behavior in countries that share the same language but not the same culture may thus be especially relevant. For example, while Brazil presents characteristics of a developing economy, Portugal presents characteristics of a developed economy (Institute for Economics & Peace, 2022; United Nations, 2022). This may influence how a career is portrayed.

### **Study's aims and hypotheses**

Accordingly, we propose to extend the study of 7-items PCOS to a sample of Portuguese university students. We believe this will extend the knowledge about its psychometric qualities, as well as the literature on protean orientation among university students.

For that purpose, we will evaluate the measure's (1) factorial structure, (2) reliability, (3) convergent, and (4) concurrent validity. An (H1) unidimensional structure and (H2) acceptable reliability indices are expected. Regarding measure convergent validity, the Portuguese version of PCAS (Briscoe et al., 2006; Marques, 2017) will be used, expecting (H3) significant correlations between the constructs. Namely with the self-directed dimension (Hall et al., 2018). As for the concurrent validity, one measure of academic engagement and another of career strategy will be used. The first measure was chosen based on the rationale that individuals capable of making an autonomous and enlightened career decision

would be willing to invest time and energy in their career construction (Ngo & Hui, 2018). The second measure was chosen based on the rationale that individuals with a clear sense of personal identity and flexibility to respond to a volatile environment will more easily engage in personal career management behaviors (e.g., networking) (Kaur & Kaushik, 2020). Therefore, (H4) significant correlations for the concurrent validity analysis are also expected.

## **Method**

### **Participants**

Participants were recruited through a convenience sampling technique. In line with the study's goals, two samples were created. Sample A included participants that voluntarily responded to the protean career measure. Sample B included participants that voluntarily responded to the entire protocol.

Sample A comprised 119 Portuguese university students. The majority were women ( $n = 95$ , 79.8%) aged 18 to 37 ( $M = 21.08$ ,  $SD = 3.28$ ). One hundred and ten (92.4%) were Caucasian, one (0.8%) Black and eight (6.8%) identified with another ethnicity. Regarding the type of education, 89 (74.8%) were studying in university education and 30 (25.2%) in polytechnic education. All institutions were from North to South of Portugal. At the time of the survey, the participants were attending the following higher education programs: 26 (21.8%) were in Social Sciences, Journalism and Information, 25 (21%) in Business, Administration and Law, 21 (17.6%) in Natural Sciences, Mathematics and Statistics, 17 (14.3%) in Health and Welfare, 15 (12.6%) in Engineering, Manufacturing and Construction, 10 (8.4%) in Arts and Humanities, 2 (1.7%) in Agriculture, Forestry, Fisheries and Veterinary, 2 (1.7%) in Education, and 1 (0.8%) in Information and Communication Technologies. Among the 119 students, 19 (16%) combined studying with working, and of these only three (2.5%) had the working student's status.

Sample B comprised 288 Portuguese university students. The majority were women ( $n = 224$ , 77.8%) aged 18 to 61 ( $M = 21.53$ ,  $SD = 4.39$ ). Two hundred and seventy-five (95.5%) were Caucasian, three (1%) Black and 10 (3.5%) identified with another ethnicity. Regarding the type of education, 183 (63.5%) were studying in university education and 105 (36.5%) in polytechnic education. All institutions were from North to South of Portugal, including Azores. At the time of the survey, the participants were attending the following educational programs: 71 (24.7%) were in Health and Welfare, 55 (19.1%) in Social Sciences, Journalism and Information, 52 (18.1%) in Business, Administration and Law, 48 (16.7%) in Natural Sciences, Mathematics and Statistics, 24 (8.3%) in Arts and Humanities, 16 (5.6%) in Engineering, Manufacturing and Construction, 13 (4.5%) in Agriculture, Forestry, Fisheries and Veterinary,

seven (2.4%) in Education, and two (0.7%) in Information and Communication Technologies. Among the 288 students, 57 (19.8%) combined studying with working, and of these only 21 (7.3%) had the working student's status.

Samples A and B were used for exploratory and confirmatory factor analyses, respectively. Although demographic differences were observed between samples, there were no statistically significant differences between samples' protean career orientation total scores [ $t(405) = .709, p = .479$ ]. This finding gives the confidence to proceed with the analyses.

## **Measures**

Protean career orientation was accessed by two measures. First, the Protean Career Orientation Scale (PCOS) from Baruch (2014) that includes seven items (e.g., "I am in charge of my own career"). Although the original measure features a 7-point response scale, ranging from 1 (strongly disagree) to 7 (strongly agree), Baruch (2014) also considered a 5-point scale as an alternative. Therefore, a 5-point scale was preferred based on the following rationale: (1) no significant reliability and validity increments are verified when the number of alternatives exceeds five; (2) this rating scale also includes a middle point as the 7-point scale; (3) the smaller number of options makes it easier and faster for the participants to respond; and (4) this decision allows us to reduce the protocol's response variability, considering the remaining scales (Vieira & Dalmoro, 2008).

Second, we applied the Portuguese version of the Protean Career Attitudes Scale (PCAS, Marques, 2017). It includes 14 items distributed by two factors: the self-directed career management factor includes items 1 to 8 (e.g., "Overall, I have a very independent, self-directed career."), and values-driven includes items 9 to 14 (e.g., "I navigate my own career, based on my personal priorities, as opposed to my employer's priorities."). The response is given in a 5-point Likert scale ranging from 1 (to little or no extent) to 5 (to a great extent). Marques (2017) found good reliability indices ( $0.75 < \alpha < 0.83$ ). The same was verified for the present study ( $.66 < \alpha < .77$ ).

The academic engagement was accessed with the Portuguese version of the Utrecht Work Engagement Scale for Students (UWES-S, Cadime et al., 2016). This scale comprises 14 items distributed by three factors: absorption with six items (e.g., "I can get carried away by my studies."), vigor with six items (e.g., "When I get up in the morning, I feel like going to class."), and dedication with five items (e.g., "My studies inspire me."). The response is given in a seven-point Likert scale ranging from 0 (never) to 6 (every day). Cadime et al. (2016) found good reliability indices ( $.82 < \alpha < .86$ ). The same was verified for the present study ( $.86 < \alpha < .94$ ).

The career self-management strategies were accessed by the Portuguese version of the Career Strategies Inventory (CSI, Matias, 2013). This inventory comprises 14 items distributed by four factors: networking with four items (e.g., "Built a network of contacts within the division for obtaining information about events, changes, or activities within the division"), creating opportunities with three items (e.g., "Tried to develop skills which may be needed to attain your career goal"), self-nomination with three items (e.g., "Make my supervisor aware of your accomplishment"), and sought career guidance with four items (e.g., "Discussing my career interests with others"). The response is given in a five-point Likert scale ranging from 1 (to a very small extent) to 5 (to a very large extent). Matias (2013) found good reliability indices ( $.77 < \alpha < .93$ ). The same was verified for the present study ( $.66 < \alpha < .92$ ).

## **Procedure**

Consent for the measure's validation was obtained, followed by the analysis and translation of the items by two bilingual (Portuguese-English) researchers, both familiar with the measure. Afterward, the items were back-translated from Portuguese to English by a third bilingual, external to the study, and with English language training. This last version was presented and discussed with Baruch, who approved the translation (items formulation in Appendix A, Table A1). The research protocol, approved by the Ethics Committee for Research in Social Sciences and Humanities (CEICSH 093/2021), was then built on SPSS Data Collection. Confidentiality and anonymity were guaranteed and the study's aim was presented at the beginning of the research protocol. The estimated completion time for the protocol was 10 minutes. Data collection took place between November 2020 and February 2021 and included two phases. In the first phase, the protocol was sent by email to several Portuguese student associations. In addition, some graduates and lecturers helped in the protocol's dissemination. The participants did not receive any kind of materialistic benefits or losses. For the second phase, the same Portuguese student associations were contacted, offering a free webinar on self-career management. To ensure greater adherence, a Saturday afternoon was chosen for the presentation. Firstly, the research was presented and participants were asked to fill in the protocol. Later, the webinar took place, and a participation certificate was offered. No losses were induced to the participants.

## **Data analyses**

Data were analyzed with the Statistical Package for Social Sciences (IBM SPSS), version 27.0 for Macintosh, and the Analysis of Moment Structures (AMOS), version 27.0 for Windows.

First, we verified the internal factor structure with sample A ( $n = 199$ ) using the exploratory factor analysis. Kaiser-Meyer-Olkin (KMO)'s index above 0.7 and Bartlett's  $p$ -value below 0.05 indicate sample adequacy (Tabachnick & Fidell, 2013). As the structure of measure was established in previous studies, the main components' method was preferred. The selection criteria for the factorial solution were as follows: consistency with the theoretical framework underlying the measure; assessment of Cattell's (1966) test; correlation matrix of the items; Kaiser criteria for factor retention (i.e., eigenvalues equal or greater than 1); and factor loadings retention equal or greater than 0.45 (Tabachnick & Fidell, 2013).

Second, we accessed measurement's goodness-of-fit with sample B ( $n = 288$ ) using the confirmatory factor analysis. As evidence of multivariate non-normality, found through Mardia's coefficient, the Maximum Likelihood Estimation method with 500 samples bootstrap was used (Gilson et al., 2013). Outliers were identified through Mahalanobis' Distance. Three outliers were found, hence, analyses with and without these extreme observations were run to control possible biases (Pinto et al., 2013). Due to goodness-of-fit variability, we preferred the results without outliers. A one-factorial measurement model was specified (Baruch, 2014), and a factor loading was fixed to 1. Model fit was evaluated through  $\chi^2/df$ , Root Means Square Error of Approximation (RMSEA) with a 90% confidence interval (CI), Comparative Fit Index (CFI), Tucker Lewis Index (TLI), Goodness-Fit-Index (GFI), Standardized Root Mean Square Residual (SRMR), and Akaike Information Criterion (AIC). Values of  $\chi^2/df$  lower than five are adequate (Arbuckle, 2008). Values of CFI, TLI, and GFI above 0.90, RMSEA below 0.08, and SRMR below 0.10 represent acceptable fit, whereas values above 0.95, below 0.06, and 0.05, respectively, represent good fit (Hu & Bentler, 1999). AIC values were used for model fit comparison. Lower AIC values indicate a better fit (Tabachnick & Fidell, 2013). As evidence of a poor model fit, we followed Hooper et al. (2008) recommendations, removing squared multiple correlations lower than 0.20. Moreover, Cronbach's alpha with and without problematic items was also analyzed, both for exploratory and confirmatory analyses.

Reliability was accessed with Cronbach's alpha, Average Variance Extracted (AVE) and Composite Reliability (CR). AVE was used as a complement due to its lower sensitivity to the scale's number of items (Valentini & Damasio, 2016). Cronbach's alpha above 0.7 indicates good precision (Hair et al., 2020). The same happens for AVE values equal to or above 0.5, and CR values equal to or above 0.7 (Hair et al., 2020). Both AVE and CR indices were calculated in Microsoft Excel, version 16.39 for Macintosh, based on factorial weights presented in the exploratory factor analyses' component matrix. The formulas applied were, respectively,  $\sum(\lambda^2)/[\sum(\lambda^2) + \sum \varepsilon]$  and  $(\sum \lambda)^2/[(\sum \lambda)^2 + \sum \varepsilon]$  (Valentini & Damasio,



2016). Regarding convergent and concurrent validity, again the SPSS version 27.0 for Macintosh was used, and *Person* correlations were calculated for sample B.

## Results

### Exploratory factor analysis

The sensitivity of the items is presented in Table 1. The values of skewness between -.84 and .35 and kurtosis between -.64 and 1.48 indicate suitable conditions to proceed with the exploratory factor analysis (EFA).

**Table 1**

*Item analyses*

	1	2	3	4	5	6	Min-Max.	Mean	Skewness	Kurtosis
It1							1-5	3.82	-.36	-.09
It2	.43***						2-5	3.61	-.14	-.64
It3	.19***	.47***					1-5	2.54	.35	-.18
It4	.22*	.49***	.35***				1-5	4.00	-.83	.78
It5	.15	.44***	.30**	.57***			2-5	4.24	-.84	1.48
It6	.23*	.51***	.25**	.38***	.47***		2-5	3.98	-.40	.19
It7	.13	.26**	.16	.14	.23*	.31**	2-5	3.60	-.27	-.51

*Note.* It = item

\*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$

The EFA results indicated the adequacy of the sample ( $KMO = .789$ ), and the correlations between the items were sufficiently high to perform a main component analysis [ $\chi^2(21) = 196.82$ ,  $p < 0.000$ ]. One component with eigenvalues over Kaiser's criteria of 1 was extracted, explaining 42.72% of the variance. This result was convergent with Cattell's (1966) test. Hence, one component was retained for further analysis. As evidence of only one component, no rotation was applied. All items, except number seven, presented factor loadings above the recommended 0.45 cutoff criteria (Table 2) (Tabachnick & Fidell, 2013). Therefore, the analysis was repeated without this item. An improvement in the total variance explained by the model is presented, approaching 50%. As a result, reliability analysis was run with and without item seven.

**Table 2***Item's factor loadings from the Principal Component Analysis (sample A)*

Items	Factor 1	Factor 1
1	.48	.48
2	.82	.82
3	.60	.61
4	.73	.75
5	.73	.73
6	.71	.70
7	.43	.
KMO test	.789	.777
Total items	7	6
Eigenvalue	2.99	2.86
Total variance explained (%)	42.72	47.68

Reliability analysis with all seven items indicated good precision indices (AVE = .427, CR = .834,  $\alpha = .755$ ), which improved for the six-item version (AVE = .468, CR = .837,  $\alpha = .764$ ).

Overall, these preliminary analyses seem to indicate a one-factor structure, with better results for the six-item version. Nevertheless, considering the primacy of this scale's study in Portugal, both six and seven-item versions were tested in the confirmatory factor analysis.

### Confirmatory Factor analysis

Considering the theoretical framework and previous EFA results, we first defined a one-factorial measurement model, assuming seven observable variables and one latent variable (M1). Although GFI, SRMR, and  $\chi^2 / df$  indicated acceptable fit (i.e., above .90, below .10, and five, respectively), the remaining indices were below the cutoff criteria (Table 3) (Hu & Bentler, 1999). Therefore, modifications indices (MI) were explored and the model was respecified. Correlation between errors from items four and five was established (M1'). Results indicate improvements in some fit indices, namely for CFI that is now above the recommended cutoff value of .90 (Hu & Bentler, 1999).

**Table 3***Fit indices for the specified measurement models (sample B)*

	$\chi^2 / df$	CFI	TLI	GFI	SRMR	RMSEA (90% CI)	AIC
M1	4.102	.869	.804	.944	.061	.105 (.077-.133)	85.431
M1' (MI > 14)	2.907	.925	.879	.964	.051	.082 (.052-.113)	67.786
M2	3.979	.912	.854	.960	.051	.102 (.069-.139)	59.813

*Note.* M1 = model with seven items; M1' = model with seven items respecified with correlations between errors 4-5; M2 = model with six items (item seven is excluded)

Nevertheless, the literature indicates correlating errors may mask underlying unrecognized factors, recommending a more parsimonious approach. A solution includes assessing the fit between the construct and each item and searching for low squared multiple correlations (Hooper et al., 2008).

Overall, item analyses indicated a high error level for item seven ( $r^2 = 0.048$ ). In tandem, alpha reliability coefficients were also computed for this new sample (i.e., sample B). An improvement was observed after excluding item seven ( $\alpha_{\text{complete scale}} = .698$ ,  $\alpha_{\text{without item 7}} = .726$ ). These results seem to be in line with the EFA previously conducted. As a result, a second model assuming six observable variables and one latent variable was specified and run (M2). Overall, fit indices improved.

Comparing the two most well-adjusted models, M1 and M2, the latter is preferable due to its parsimony and lower AIC values (Hooper et al., 2008; Tabachnick & Fidell, 2013). Furthermore, the EFA previously run with sample A also indicates higher values of total variance explained by the model with six items. As a result, the following analyses were performed with the six-item version.

### Criterion-related validity

Convergent validity was examined through PCOS and PCAS correlations. Results indicated a large correlation effect between PCOS and PCAS, namely with the self-directed dimension (table 4) ( $r \geq .50$ , Cohen, 1988).

Concurrent validity was examined through PCOS and UWES-S correlations, as well as PCOS and CSI correlations (Table 4).

**Table 4**

*Criterion-related validity (sample B)*

	Protean career orientation
Self-directed attitude	.63
Values driven attitude	.41
PCAS total	.64
Absorption	.23
Vigor	.25
Dedication	.25
UWES-S total	.27
Networking	.21
Creating opportunities	.22
Self-nomination	.27
Sought career guidance	.23
CSI total	.28

*Note.* All correlations are significant at  $p < .001$  level.

Correlations ranged from .21 to .28, indicating a moderate effect ( $.30 \leq r < .50$ , Cohen, 1988) which supported criterion-related validity. These values indicated that PCO accesses a distinct construct

from UWES-S and CSI. Moreover, all the correlations between the constructs were positive and statistically significant.

## **Discussion**

This study sought to extend the study on PCOS psychometric properties. Specifically, evaluating its reliability, internal validity, and criterion-related validity in a sample of Portuguese university students.

As expected, our results support the unidimensional nature of the construct (H1), which is in line with previous studies (Baruch, 2014; Cortellazzo et al., 2020; Herrmann et al., 2015; Ngo & Hui, 2018). However, when analyzing fit indices, we noticed improvements by excluding item seven. This evidence was found both in factor analyses and reliability indices. Unlike previous studies, especially the Brazilian validation that assessed this psychometric property, our results are far from the expected. While in the Brazilian version items one and three were excluded, in the present sample we excluded item seven. These results seem to support the idea that one's environment influences the construction of meaning about what a protean career orientation entail. As mentioned by Andrade et al. (2022), Brazil suffers from high unemployment rates, social inequalities, and scarce State support. Meanwhile, Portugal experiences these conditions to a lesser degree, and the internal security levels are higher, which decreases unpredictability feelings (Institute for Economics & Peace, 2022). These environmental differences may justify why Brazilians understand flexibility (i.e., core concept in item 7) as protean and Portuguese do not. In a dynamic context that is, at the same time, reasonably predictable, individuals may consider that only in a structured vocational context they will be capable of control, influence, and, therefore, managing their career path. Flexibility, in turn, might be interpreted as a symbol of uncertainty and unclarity. These results may indicate that career agency for the Portuguese people depends more on how autonomous, free, and responsible they are for their chosen path than on work flexibility. Nevertheless, further studies are needed. Either by reproducing our approach in other samples of Portuguese university students or by extending the study to other groups (e.g., adolescents, job seekers). When including more than one group, we suggest testing the measure's metric invariance to understand its consistency across groups.

As for the internal validity, it was found good reliability indices, supporting H2. The same happens among American (Baruch, 2014), Italian (Cortellazzo et al., 2020), and German (Herrmann et al., 2015) university students. Therefore, our findings reinforce the idea that the PCOS measure is faithful to the protean career orientation construct's definition (Hall, 1976).

Convergent validity results indicate significant correlations between PCOS and PCAS, namely with the self-directed dimensions of the latter. Hence, our results support H3. The evidence is in agreement

with Hall et al.'s (2018) statement. According to these authors, Baruch's (2014) PCOS “focus mainly on self-directed and career success” (p.135). We agree. Despite the existence of items about personal values (e.g., item 6, “Freedom and autonomy are driving forces in my career”) the self-directed dimension is dominant (e.g., item 4 “I am in charge of my own career”). Nevertheless, the PCOS is consistent with the original concept of protean orientation (Hall, 1976), accessing this construct with a reduced number of items. In addition, we may assume that Baruch responds to Gubler et al. (2014) suggestion by bringing the underlying processes of PCO into the formulation of the items. For example, the adaptability process can be identified in item 2 (“I navigate my own career, mostly according to my plans”). Navigating through one’s career involves taking action and replying to challenges that arise, which matches the adaptability definition (Hall et al., 2018). Meanwhile, the identity awareness process can be identified in item 1 (“For me, career success is how I am doing against my goals and values”). Here the meaning of career success is assigned to how well a person is doing against their goals and values. As stated by Hall et al. (2018), identity awareness is defined as a meaning-making process. Therefore, we assert that Baruch’s PCOS is an adequate measure to evaluate one’s PCO, offering a shorter alternative to PCAS.

Concurrent validity analyses indicate significant positive correlations between protean career orientation and academic engagement, which meets Ngo and Hui's (2018) results. These authors found the same pattern for work engagement among a sample of Chinese employees, also reporting that work engagement may be a mediator between this proactive career attitude and career satisfaction. Regarding career strategies, our results indicate significant and positive correlations between this variable and the protean career orientation. This evidence was also found in previous studies. For example, Kaur and Kaushik (2020) indicate positive relations between protean career orientation and strategies such as networking, career exploration, and learning. Together this evidence supports H4 and highlights the importance of fostering university students’ protean orientation. On the one hand, this orientation can motivate students to actively engage in the learning processes. On the other hand, this orientation can empower students to actively manage their careers, ensuring their lifelong employability. Furthermore, the moderate effects found between these variables strengthen that PCOS evaluates attitudes rather than beliefs or behaviors (Cadime et al., 2016; Matias, 2013).

### **Theoretical and Practical Implications**

Our study’s strengths include the extension of protean career orientation research to university students. Specifically, our findings introduce a new reliable, and valid measure to access this group’s protean orientation toward a career. On the one hand, this allows for theoretical advances. Namely, in

the psychological assessment literature, providing a shorter alternative measure for PCAS – Portuguese version. PCOS may be used by researchers and practitioners. We believe its reduced size may be especially attractive for large surveys and practical work that requires a short administration time (e.g., organizational contexts, research follow-up). As a result, we hope to motivate further studies on protean orientation within the Portuguese context. A second theoretical advance comprises our findings supporting possible differences in the protean career orientation conceptualization. Specifically, among individuals living in countries with distinct cultures and work structures, such as Portugal and Brazil (Institute for Economics & Peace, 2022; United Nations, 2022). We believe that our findings, when compared to the Brazilian PCOS' validation (Andrade et al., 2022), contribute to the ongoing debate about the psychosocial nature of protean orientation and its consequent impact on individuals' assessment (e.g., Hall et al., 2018; Kostal & Wiernik, 2017).

Other strengths of the present study include some practical advances. PCOS will be useful to monitor career interventions focused on developing students' protean orientation, as well as guiding educational and supervision processes. For example, Baruch (2014, p.2718) states that protean individuals "tend to take initiatives, and to be engaged with self-setting their training needs". In contrast, less protean individuals may be more dependent on external feedback. This thesis is also supported by other authors as Briscoe and Hall (2006), who further state that even protean people can present different profiles. As a result, it will be necessary to adapt educational and supervision strategies to capture each student's profile, maintaining their interest and engagement. While protean students might benefit from a less structured approach, with openness for reflection, self-planning, and personal choice. Traditional students might prefer a proximal, more directive approach. The PCOS items may, therefore, be a guide for all the teachers and supervisors to understand students' preferences. Regarding career interventions, we believe it will be advantageous to include PCOS in the evaluation toolkit, either as a means of initial assessment or process monitoring.

### **Limitations and future research directions**

Without underrating these theoretical and practical contributions, we need to mention this study's limitations. First, the cross-sectional design adopted prevented us from analyzing PCOS' test-retest reliability. As stated by Hall et al. (2018), one's protean orientation toward a career is a dynamic process. Therefore, further longitudinal research on the measure is needed to assure that findings are justified by individual rather than metric differences. Another aspect to point out is the focus on university students. Although this feature broadens the study of protean career orientation to this specific group, we agree

that further studies are needed. Especially, among other groups such as high school students or people with some physical or psychological disability, for example. In this regard, studies with more than one group might be advantageous to evaluate the measure's invariance.

## **Conclusion**

To conclude, PCOS seems to be a psychometrically sound instrument to measure one's protean career orientation. Namely, among Portuguese university students. Our findings support its reliability and validity after the item seven exclusion. Therefore, we hold that the PCOS might be an economical and pertinent alternative to the PCAS – Portuguese version. This 6-item alternative might be suitable for studies with large protocols, as well as practical purposes for university students' career counseling and assessment. Specifically, this measure might motivate further studies on the protean career orientation nomological network. Moreover, whether in educational or organizational settings (e.g., trainees), this measure may also facilitate the adaptation of teaching and supervision methods through the information gathered on students' protean patterns. Meanwhile, career counselors will find PCOS a useful ally to monitor their practice. As indicated by previous studies, adopting a protean orientation toward a career is advantageous, because it improves one's employability outcomes and career satisfaction (e.g., Cortellazzo et al., 2020; Kaur & Kaushik, 2020; Stauffer et al., 2019). Therefore, we hope to motivate further interventions in the field. Nevertheless, more studies are needed. Mainly to extend the PCOS study to other Portuguese groups and cultures.

## Appendix A

**Table A1**

*Protean Career Orientation Scale (Portuguese version)*

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Itens	
1.	For me, career success is how I am doing against my goals and values <i>Para mim, sucesso na carreira é o que estou a conseguir em relação aos meus objetivos e valores</i>
2.	I navigate my own career, mostly according to my plans <i>Eu dirijo a minha própria carreira, basicamente com base nos meus planos</i>
3.	If I have to find a new job, it would be easy <i>Se tiver que procurar um novo emprego, será fácil</i>
4.	I am in charge of my own career <i>Sou responsável pela minha carreira</i>
5.	I take responsibility for my own development <i>Assumo a responsabilidade pelo meu próprio desenvolvimento</i>
6.	Freedom and autonomy are driving forces in my career <i>A liberdade e a autonomia são forças motrizes na minha carreira</i>
7.	For me, career success means having flexibility in my job* <i>Para mim, sucesso na carreira significa ter flexibilidade no meu trabalho</i>

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*Note.* \* Scale's Portuguese version for university students include the first 6 items. Item 7 did not meet the necessary statistical criteria.



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## **2. Career Adapt-Abilities Scale–Short Form: Validation among Portuguese University Students and Workers**

Soares, J., Taveira, M.C., Barroso, P., & Silva, A.D. (2022). Career Adapt-Abilities Scale–Short Form: Validation among Portuguese University Students and Workers. *Journal of Career Assessment*, 0(0), 1-17. <http://doi.org/10.1177/10690727221129281>

### **Abstract**

Career Adapt-Abilities Scale (CAAS) was recently reduced to a briefer 12-items version, the Career Adapt-Abilities Scale-Short Form (CAAS-SF). Considering its advantages in long protocols, we validated CAAS-SF for the Portuguese context. Participants were 314 university students (17–47 years old,  $M_{age} = 21.50$ ,  $S_{dage} = 4.32$ , 82.8% females), and 899 working adults (17–66 years old,  $M_{age} = 40.14$ ,  $S_{dage} = 11.95$ , 76.8% females). Sociodemographic, career adaptability, vocational identity, and life satisfaction measures were applied. Confirmatory factor analyses supported CAAS-SF four-factor hierarchical structure, Cronbach alpha estimates supported CAAS-SF good reliability, and Pearson correlations indicated positive associations with CAAS, vocational identity, and life satisfaction. Multigroup analyses indicated CAAS-SF adequate configural invariance, full metric and scalar invariance across genders, and partial scalar invariance across students and workers' groups. These findings support CAAS-SF usage as a valid and reliable measure to assess career adaptability with portuguese university students and workers both in research and practice.

*Keywords:* career adaptability, career construction model, CAAS-SF, psychometric properties, Portuguese validation

## Introduction

Career intervention focus evolved with societal and labor market changes. While in the 20<sup>th</sup>-century career professionals focused on helping individuals choose a lifelong job or occupation (e.g., Dawis, 1996; Holland, 1959), in the 21<sup>st</sup>-century the focus is on helping individuals build a strong sense of career identity (e.g., Lent & Brown, 2013; Savickas, 2021). The focus on identity aims to facilitate individuals' meaningful decisional processes in current more fluid and dynamic career contexts, characterized by more frequent (un)expected transitions and demands of continuous learning (e.g., Hauschildt et al., 2021; Pabollet et al., 2019; World Economic Forum, 2018). Concurrently, the career theoretical focus also shifted from the career maturity perspective to the career adaptability perspective (Ambiel, 2014; Johnston, 2018), meaning that, career development is conceived as a process driven by environmental adaptation rather than by inner structures' maturation (Savickas, 2021).

Career adaptability is a key concept in one of the most well-established contemporary theories, the Career Construction Theory (CCT, Savickas, 2005, 2021). CCT is conceived under the light of a multicultural society with a global economy and seeks to explain how individuals organize their characteristics, make career choices, and ascribe meaning to their career paths. Specifically, CCT considers that adaptation results, indicated by career success, satisfaction, and development are achieved through individuals' willingness to change (i.e., adaptivity), self-regulatory resources (i.e., adaptability) acquired through experience, and one's strategies to address changing conditions (i.e., adapting) (Savickas, 2021; Savickas & Porfeli, 2012). This sequential relationship ranging across adaptivity, adaptability, adapting, and adaptation is strongly supported in the literature (for a revision, see Rudolph et al., 2017 meta-analysis). Within this framework, career adaptability is defined as a psychosocial construct that mirrors individuals' self-regulatory resources "to solve the unfamiliar, complex, and ill-defined problems presented by developmental vocational tasks, occupational transitions, and work traumas" (Savickas & Porfeli, 2012, p. 662). This means that adaptability helps to find a harmony between inner needs and outer challenges, namely social expectations about age-graded normative transitions, job transitions, and painful events such as contract violations, plant closings, and job accidents (Savickas, 2005, 2021).

As a multidimensional construct, career adaptability comprises four dimensions: concern, control, curiosity, and confidence about future career paths (Savickas, 2005, 2021). Career concern consists of thinking and planning the future career, being its absence linked with career indifference which is reflected in apathy, pessimism, and absence of career planning. Career control consists of individuals' persistence and effort in adapting to environmental challenges. Its absence can lead to a lack of career

goals establishment, which causes difficulties in the decision-making process. Career curiosity consists of individuals' self- and environmental attention and inquiring, considering multiple career scenarios. Its absence can lead to low career exploration and unrealistic career decisions. Lastly, career confidence consists of individuals' perceived efficacy in successfully implementing a career plan. Therefore, its absence can inhibit career actions.

Adaptability resources begin to develop during childhood through identification and imitation of role models (e.g., Garcia et al., 2019; Ramos & Lopez, 2018). Throughout life, adaptability resources are shaped by each person's experiences and learnings (e.g., Hirschi & Valero, 2015; Savickas, 2021). Those with more career adaptability resources will experience greater ease in managing their career, as they perceive greater efficacy, are prone to explore career opportunities, and to design and implement a career plan (e.g., Hirschi et al., 2015; Hirschi & Valero, 2015; Neureiter & Traut-Mattausch, 2017; Taber & Blankemeyer, 2015). Studies with university students indicate significant and positive relations between career adaptability resources and life satisfaction (Ghosh et al., 2019; Hirschi et al., 2015), life meaning (Zhuang et al., 2018), sense of calling (Buyukgoze-Kavas et al., 2015), academic satisfaction (Urbanaviciute et al., 2016; Wilkins-Yel et al., 2018), academic persistence (Wilkins-Yel et al., 2018), perceived employability (Soares et al., 2021), academic engagement, and vocational identity (Merino-Tejedor et al., 2016). Meanwhile, significant negative relations were found between career adaptability and academic burnout (Merino-Tejedor et al., 2016). Likewise, studies with working adults indicate positive and significant relations between career adaptability and life satisfaction (Ramos & Lopez, 2018; Takao & Ishiyama, 2021), life meaning (Ramos & Lopez, 2018), career/job satisfaction (Chan et al., 2016; Spurk et al., 2020), and work engagement (Rossier et al., 2012). Significant negative relations were found between career adaptability and work stress (Johnston et al., 2013). Based on this evidence, we may assume the relevance of career adaptability to individuals' lives.

### **Career Adapt-Abilities Scale**

The operationalization and assessment of career adaptability, benefited from the work of an international team from 13 countries that developed the Career Adapt-Abilities Scale (CAAS, Savickas & Porfeli, 2012). CAAS – International Form comprises 24 items loaded on four first-order factors (i.e., concern, control, curiosity, confidence – six items per factor), loading in one second-order factor (i.e., career adaptability). The four-factor hierarchical structure was validated both in Western (e.g., Portugal – Monteiro & Almeida, 2015; Italy – Di Maggio et al., 2015; German-speaking Switzerland – Johnston et al., 2013) and in non-Western countries (e.g., Philippines – Tolentino et al., 2013; Lithuania –



Urbanaviciute et al., 2014; Nigeria – Olugbade, 2016), presenting good psychometric properties. For example, in a sample of 406 Portuguese university students ( $M_{age} = 25.60$ ,  $S_{age} = 6.62$ ) Monteiro and Almeida (2015) found a total reliability index of .92, and the following fit indices:  $\chi^2/df = 2.41$ , GFI = .89, CFI = .92, RMSEA = .06, SRMR = .05. Moreover, in the Portuguese context, there is another version of CAAS. Before the study of Monteiro and Almeida (2015), with the same 24 items of the international form, Duarte and colleagues (2012) from Savickas' international team (2012), presented a 28-items version. For each factor, Duarte et al. (2012) kept the same items of CAAS – International Form, plus one additional item that proved to have a high factor loading on the sample collected (i.e.,  $N = 916$  participants, divided into 255 9<sup>th</sup> grade and high school students, 395 workers and 266 unemployed). In their study, a total reliability index of .90 was found, together with the following fit indices: CFI = .97, RMSEA = .06, SRMR = .05. When comparing the psychometric properties of both CAAS Portuguese versions, the values found are close to those of the international study (i.e., a total reliability index of .92, CFI = .92, RMSEA = .05, and SRMR = .04) (Savickas & Porfeli, 2012).

Recently, considering the limited time most practitioners and researchers daily have, Maggiori et al. (2017) developed a shorter version of the scale. Using the 24-item of CAAS – International Form, Maggiori et al. (2017) selected the three highest factor loading items by subscale: items one, three, and four from concern subscale, items two, three, and five from control subscale, items two, three, and four from curiosity subscale, and items two, three, and four from confidence subscale. Confirmatory factor analysis with these 12 selected items supported the same hierarchical, four-factor structure of the 24-items version ( $\chi^2/df = 6.66$ , NFI = .968, CFI = .964, TLI = .953, RMSEA = .064), with good reliability indices (French version =  $.77 < \alpha < .90$ , German version =  $.76 < \alpha < .90$ ). This pattern was also found in Turkey (cf. Işık et al., 2018), China (cf. Yu et al., 2020), and India (cf. Pal & Jena, 2021). However, further studies are needed to evaluate the applicability and validity of this shorter version in other cultural contexts since environmental differences might affect career adaptability construction (e.g., Savickas & Porfeli, 2012).

In today's global world, the relevance of comparing people to advance theories, as CCT, is a growing reality (e.g., Sheu et al., 2014; Soares et al., 2021). However, this requires valid and invariant measures. In other words, it is critical to choose an instrument that measures the intended construct, and gives confidence about the results found, indicating real group differences, rather than a product of cross-groups differential item response tendency (e.g., American Educational Research Association, 2014; Dimitrov, 2017). These assumptions are especially meaningful when working with psychosocial constructs such as career adaptability. As sociocultural contexts present a diverse constellation of

variables and processes, different countries can be expected to present different opportunities to develop and express these adaptability resources (Savickas & Porfeli, 2012). Therefore, considering the time advantages of having a shorter measure to assess adaptability in Portugal, our study seeks to evaluate whether Maggiori et al.'s (2017) selected items of CAAS-International Form also present good psychometric properties in this sociocultural context.

### **The Portuguese Context**

From 2019 to 2020, Portugal experienced an increase in the youth unemployment rate, standing 15.7% above the EU27 average. Meanwhile, the number of young people with temporary contracts and part-time work decreased, although remaining high (56% and 19.6%, respectively) and above the EU27 average (11% and 8% above, respectively, Tavares et al., 2021). Simultaneously, the structure and nature of employment have changed, both globally (Pabollet et al., 2019; World Economic Forum, 2018) and in Portugal, imposing frequent and continuous up- and reskilling (Duarte et al., 2019). This employment outlook, coupled with the difficulties of Portuguese people to find a paid job, may be contributing to the increase of enrolments in higher education. For example, in the 2021-year, national statistics registered the largest number of applicants to higher education (www.pordata.pt).

In this context, there is an increase of international students, and of students with impairments, women, and senior students (Martins et al., 2018). For example, in 2021, women represent more than half of the Portuguese university student population (www.pordata.pt). Meanwhile, the expression of senior students is less apparent. According to Hauschildt et al. (2021) report, Portugal still has a young population of university students, with more than half under the age of 21. This means that Portuguese university students are essentially dealing with career development tasks of the exploratory stage (Savickas, 2005). In other words, these individuals may still wonder about who they are or what role they should play in society. Their main needs include activities of exploration and experimentation, achieving a greater sense of autonomy, and establishing a commitment to a chosen career path (Hartung, 2021; Newman & Newman, 2015). Moreover, this period tends to be characterized by high levels of anxiety as one's self-concept is still under construction (Newman & Newman, 2015). In contrast, the majority of working people are in a different developmental stage and present several educational paths.

According to 2021 national statistics (www.pordata.pt), more than 90% of Portuguese working individuals are between the age of 25 and 64. Specifically, 46.7% were aged 45 to 64 facing career development tasks of maintenance stage, and 44.1% were aged 25 to 44 facing career development tasks of establishment stage (Savickas, 2005). These career stages are characterized by a greater

salience of worker role, as well as, a concern for maintaining, changing, or evolving in one's job (Savickas, 2005; Hartung, 2021). Moreover, the need for balancing additional life roles, spread one's social network, and engage in self-development activities increases (Newman & Newman, 2015). Regarding these people's educational level, progress has been made over time. In 2021 only 0.4% of Portuguese workers have no school diploma. The remaining are heterogeneously distributed and less than half have a higher education diploma ([www.pordata.pt](http://www.pordata.pt)). As a result, we may expect these differences in students' and workers' lives may influence their understanding of what is needed to build a desired career path. In line with previous evidence, both contextual (e.g., education, culture) and individual (e.g., age, gender) variables may impact one's adaptability resources (e.g., Hirshi & Valero, 2015; Rudolph et al., 2017).

According to Kremer (2016) and Schultheiss (2021), gender constructions of what are typically the men's and women's roles in society have a clear manifestation in one's career construction. In this regard, Portugal still presents a patriarchal culture where these gender norms are mirrored in domains such as education and work, despite notorious improvements across time. For example, in 2021 women were still mostly concentrated in health, social protection, and education courses, while men were mostly concentrated in engineering, manufacturing, and construction ([www.pordata.pt](http://www.pordata.pt)). Meanwhile, in the employment context, there are still wage differences, with women earning less than men for the same qualification level ([www.pordata.pt](http://www.pordata.pt)). Also, in line with European trends, Portuguese women continue to spend more time than men in household, making their life role management harder (EIGE, 2021).

Within this context, the task of searching for and holding the desired career path may be a challenge, affecting both men's and women's health, who study or work (e.g., Duffy et al., 2021; Shin, 2019). Therefore, developing adaptability resources will be advantageous. People will better anticipate barriers and opportunities to their goals, shape the environment in response, explore different career options, and build a meaningful plan that gives them the confidence to face the imposed circumstances. Nevertheless, a previous step consists of having a valid measure to assess the adaptability construct.

### **Current study aims**

In line with CAAS-SF previous validation studies (e.g., Maggiori et al., 2017), we aim to evaluate CAAS-SF (1) psychometric properties in a Portuguese sample of university students and working adults, (2) convergent validity with CAAS 24-items, (3) concurrent validity with vocational identity among university students, and life satisfaction among working adults, and (4) measurement equivalence (i.e., configural, metric, structural) across social groups (i.e., university students and working adults) and gender (i.e., women and men). Considering adaptability's psychosocial nature and its roots in CCT, these

social and gender groups were chosen based on their different occupations and life challenges. One CCT proposition specifically states that “each occupation requires a different pattern of vocational characteristics” (Savickas, 2005, p.46). Therefore, one might wonder what impact these differences have on individuals’ career understanding.

## **Method**

### **Participants and Procedure**

Total sample included 1213 youngers and adults between 17 and 66 years old ( $M = 35.32$ ,  $SD = 13.31$ ), the majority being women ( $n = 950$ , 78.3%). Specifically, two independent social groups are represented – university students and working adults. Inclusion criteria for both groups included being of Portuguese nationality.

University students group consisted of 314 participants aged 17 to 47 ( $M = 21.50$ ,  $SD = 4.32$ ), 260 (82.8%) females and 53 (16.9%) males. At the moment of data collection, 229 (72.9%) students were attending a Bachelor’s, 47 (15%) a Master’s, 30 (9.6%) an Integrated Master’s, and eight (2.5%) a Ph.D. Working adults group consisted of 899 participants aged 17 to 66 ( $M = 40.14$ ,  $SD = 11.95$ ), 690 (76.8%) females and 208 (23.1%) males. Concerning participants’ educational level, 286 (31.8%) held a Bachelor’s degree, 255 (28.4%) a Master’s degree, 179 (19.9%) a PhD degree, 76 (8.5%) a high school diploma, 40 (4.4%) a vocational high school diploma, 20 (2.2%) a third cycle elementary school diploma, 17 (1.9%) a superior technician diploma, 16 (1.8%) technological specialization diploma, seven (0.8%) a second cycle elementary school diploma, and three (0.3%) a first cycle elementary school diploma. Participants were from diverse occupational backgrounds (e.g., teacher, researcher, psychologist, engineer, salesman). Both samples included working students. Forty-four (14%) in the university students’ group and 101 (11.2%) in the working adults’ group, reflecting the outlook of Portuguese higher education institutions (DGEEC, 2021).

This study is part of another larger study, and to better reach the groups under study, two independent protocols were designed. Sample collection was approved by the Portuguese Ethical Committee for Research in Social and Human Sciences (university students’ sample – CEICSH 093/2021, working adults’ sample – CEICSH 061/2019). Both protocols were elaborated on SPSS Data Collection. University students’ protocol included measures of sociodemographic data, career adaptability, and vocational identity. The participants who willingly accepted to fill out this protocol were required to be currently enrolled in a higher education course. Working adults’ protocol included

measures of sociodemographic data, career adaptability, and life satisfaction. The participants who willingly accepted to fill out this protocol were required to be currently employed. For each case, we started by presenting the study's aim and ensuring data confidentiality and anonymity. The student group is a non-probabilistic convenience sample recruited between November 2020 and February 2021. Here we started by emailing several Portuguese students' associations, from north to south of Portugal, asking to share and fill in the protocol online. Secondly, we emailed the same Portuguese students' associations offering a free webinar on self-career management, which began with an invitation to fill in the protocol, also online. Protocol completion took approximately 10 minutes. As for the workers' group, a non-probabilistic snowball sample was recruited between May and October 2020. Firstly, we emailed several Portuguese working adults, asking them to fill in the protocol online, and share it with other workers. Secondly, we emailed education and training institutions, employment services, and private companies, asking them to share the protocol with their employees. Protocol completion took approximately 10 minutes.

## **Instruments**

### ***Career Adapt-Ability Scale (CAAS)***

The CAAS – Portuguese version (Monteiro & Almeida, 2015) contains 24 items as the CAAS-International Form 2.0 (Savickas & Porfeli, 2012), evenly divided by four factors that combined assesses individuals' career adaptability. Scale factors include concern (e.g., "Preparing for the future"), control (e.g., "Keeping upbeat"), curiosity (e.g., "Exploring my surroundings"), and confidence (e.g., "Solving problems"). Response is given in a 5-point Likert scale ranging from 1 (not strong) to 5 (very strong). Higher scores represent higher career adaptability. The Portuguese version showed good reliability indices ( $.78 < \alpha < .92$ , Monteiro & Almeida, 2015), as well as, we found for the present sample of university students ( $.81 < \alpha < .93$ ) and working adults ( $.80 < \alpha < .92$ ). Considering this 24-items CAAS and Maggiori et al. (2017) study, we will evaluate CAAS Short-Form in our sample (Appendix A, Table A1).

### ***Vocational Identity Scale (VIS)***

The VIS – Portuguese version (Santos, 2010) contains 18 items (e.g., "I feel uncertain about what professions I could do well") as the original version of Holland et al. (1980), and was applied to assess university students' vocational identity. Participants evaluate if they have a clear and stable picture of their talents, interests, and goals, answering in a true or false scale. Higher scores represent higher

vocational identity. The Portuguese version showed good reliability indices ( $\alpha = .79$ , Santos, 2010), as well as, we found for the present sample of university students ( $\alpha = .85$ ).

### ***Satisfaction With Life Scale (SWLS)***

The SWLS – Portuguese version (Lent et al., 2009), contains five items (e.g., “I am satisfied with my life”) as the original version of Diener et al. (1985), and was applied to assess working adults’ global life satisfaction. Response is given in a 7-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). Higher scores represent higher life satisfaction. The Portuguese version showed good reliability indices ( $\alpha = .91$ , Lent et al., 2009), as well as, we found for the present sample of working adults ( $\alpha = .90$ ).

### **Analyses**

We used the Statistical Package for the Social Sciences (IBM SPSS), version 27.0 for Macintosh, to perform preliminary descriptive analysis, Cronbach’s alpha reliability estimates, and Pearson’s correlations between the applied measures. Pearson’s correlations were used to evaluate CAAS-SF criterion-related validity.

Confirmatory factor analysis (CFA) was performed with the Analysis of Moment Structures (AMOS), version 27.0 for Windows. Multivariate normality of sampling distribution was well-above the recommended value (i.e., Mardia’s coefficient  $\leq 3$  for normality, Tabachnick & Fidell, 2013). Therefore, we applied the Maximum Likelihood estimation method with bootstrapping (Gilson et al., 2013). Outliers by group were identified using the Mahalanobis’ Distance. Specifically, we identified 15 outliers among university students, 31 among working adults, nine among men, and 38 among women. Analyses were run with and without outliers to control for possible bias (Pinto et al., 2013). As there were differences in these findings, results without outliers were preferred. Having verified the statistical assumptions, two measurement models were specified. Model 1 (M1), theoretically defined (Maggiori et al., 2017), specifies that 12 observable variables loaded on four first-order latent variables (i.e., concern, control, curiosity, confidence), which in turn load on one second-order latent variable (i.e., career adaptability). Therefore, it was adopted a four-factor hierarchical structure. Model 2 (M2), an alternative first-order model (Yu et al., 2020), specifies that 12 observable variables are loaded on one first-order latent variable (i.e., career adaptability).

Model fit was evaluated taking into account the same indexes as Maggiori et al. (2017). Specifically,  $\chi^2/df$ , the Tucker–Lewis’s index (TLI), the Comparative Fit Index (CFI), the Normed Fit Index

(NFI), and the Root Mean Square Error of Approximation (RMSEA) with 90% confidence interval (CI). Values of  $\chi^2/df$  equal or below five, TLI, CFI, and NFI above .90, and RMSEA between .05 and .08 indicate an acceptable model fit. Meanwhile, values of  $\chi^2/df$  below three, TLI, CFI, and NFI above .95, and RMSEA below .05 indicate a good model fit (Bollen, 1989; Browne & Cudeck, 1992; Byrne, 2010). The Akaike Information Criterion (AIC) was also considered to sustain the comparative appreciation of M1 and M2 measurement models, being the lower AIC value indicative of better fit (Oliveira et al., 2018).

Multigroup CFA was performed to evaluate measurement invariance across social groups and gender. This analysis is paramount in informing measure's utility for comparative studies (Jiang et al., 2017; Vandenberg & Lance, 2000). Specifically, we started by testing a baseline model (MI1: Configural model) with no equality constraints across groups. After, we tested a second model (MI2: Metric model) in which factor loadings were constrained to be equal across groups, which were compared to MI1. Finally, we tested a third model (MI3: Scalar model) in which item intercepts were constrained to be equal across groups, being compared with MI2. Invariance was evaluated according to  $\Delta$  CFI and  $\Delta$  RMSEA indexes, for which values lower than .01 and .015, respectively, indicate models' invariance (Chen, 2007). Nevertheless, when faced with inconsistencies between  $\Delta$  CFI and  $\Delta$  RMSEA indexes, the former was preferred due to its robustness (Cheung & Rensvold, 2002).

## **Results**

### **Descriptive statistics and reliability estimates**

CAAS-SF total score and dimensions' means, standard deviations, and Cronbach alpha reliability estimates are reported in Table 1. University students and working adults' typical responses to career adaptability and its dimensions ranged from strong to very strong. Cronbach Alpha reliability estimates were greater than .70, which indicates good reliability of CAAS-SF across groups (Nunnally, 1970). Specifically, reliability estimates ranged from .70 to .87 for university students and .76 to .86 for working adults.

**Table 1***Means, standard deviations, correlations, and Cronbach Alpha reliability estimates (by social groups)*

	1	2	3	4	5	<i>M</i>	<i>SD</i>
University students							
1. Concern CAAS-SF	(.72)					4.06	.69
2. Control CAAS-SF	.40	(.70)				4.31	.62
3. Curiosity CAAS-SF	.45	.45	(.75)			3.94	.72
4. Confidence CAAS-SF	.52	.59	.62	(.79)		4.23	.65
5. Total score CAAS-SF	.75	.76	.80	.86	(.87)	4.14	.53
6. Total score CAAS	.72	.75	.79	.85	.98	4.10	.53
7. Total score VIS	.33	.37	.22	.30	.38	1.55	.25
Working adults							
1. Concern CAAS-SF	(.80)					3.90	.79
2. Control CAAS-SF	.36	(.76)				4.46	.54
3. Curiosity CAAS-SF	.45	.51	(.77)			4.12	.65
4. Confidence CAAS-SF	.35	.51	.57	(.76)		4.45	.53
5. Total score CAAS-SF	.76	.74	.82	.75	(.86)	4.23	.48
6. Total score CAAS	.73	.70	.80	.74	.97	4.16	.48
7. Total score SWLS	.18	.21	.26	.17	.27	4.81	1.22

*Note.* All correlations are significant at  $p < .001$ . Cronbach alpha reliability estimates for CAAS-SF appear on the diagonal.

### **CAAS-SF inter-correlations and criterion-related validity**

Pearson's correlations coefficients were all significant as indicated in Table 1. Correlations magnitude between CAAS-SF dimensions and total score were strong ( $r > .50$ , Cohen, 1988) across groups, while the inter-correlations magnitudes among CAAS-SF dimensions ranged from moderate to strong ( $r > .30$ , Cohen, 1988). Regarding criterion-related validity, we started by analyzing convergent validity between CAAS-SF and CAAS 24-items. Overall, correlations magnitudes between CAAS-SF dimensions and total score, with CAAS 24-items total score were strong ( $r > .50$ , Cohen, 1988). As for the concurrent validity, we analyzed Pearson's correlations between CAAS-SF and VIS among university students, which ranged from weak to moderate ( $r < .50$ , Cohen, 1988), and between CAAS-SF and SWLS among working adults, which were weak ( $r < .30$ , Cohen, 1988).

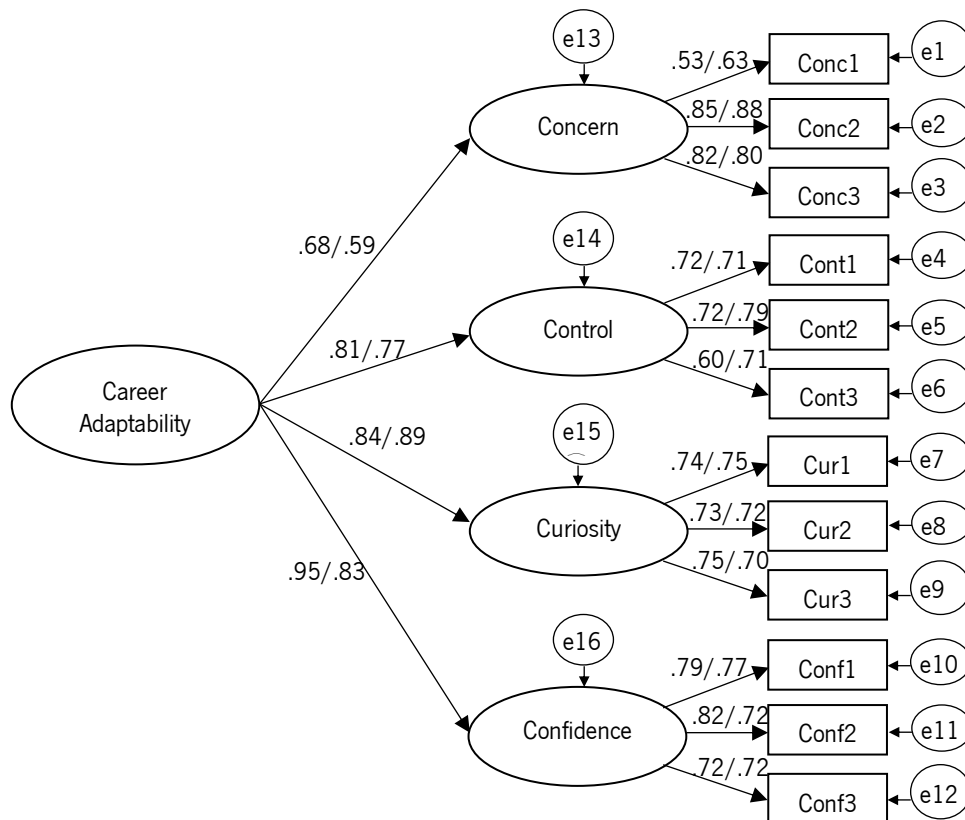
### **Confirmatory factor analysis among social groups**

The results of M1, hierarchical model theoretically defined (Maggiori et al., 2017) indicated an overall adequate model fit, both for university students [ $\chi^2/df = 2.848$ , TLI = .919, CFI = .939, NFI = .909, RMSEA = .079 (90% CI, .064 – .094)] and working adults [ $\chi^2/df = 4.721$ , TLI = .941, CFI = .955, NFI = .944, RMSEA = .066 (90% CI, .057 – .074)] groups. Meanwhile, the alternative M2 first-order



model (Yu et al., 2020) was notoriously worse, both for university students [ $\chi^2/df = 6.689$ , TLI = .750, CFI = .796, NFI = .770, RMSEA = .138 (90% CI, .125 – .152)] and working adults [ $\chi^2/df = 22.742$ , TLI = .653, CFI = .716, NFI = .708, RMSEA = .158 (90% CI, .151 – .166)] groups. This adjustment difference was also indicated by AIC value, which is lower for the M1, both for university students (M1: 198.417 vs. M2: 409.190) and working adults (M1: 292.054 vs. M2: 1276.083). Therefore, M1 is desirable and was used to evaluate CAAS-SF invariance (i.e., configural, metric, and scalar). M1 standardized factor loadings from items to four first-order factors, and from these factors to the second-order career adaptability construct ranged from .53 to .95, which suggests that all items and factors are strong indicators of their respective constructs (Figure 1).

**Figure 1**  
Hierarchical confirmatory factor model by social group



*Note.* Hierarchical confirmatory factor model and standardized factor loadings across university students and working adults, respectively. All factor loadings are significant at  $p < .001$

### Measurement invariance across social groups and gender

As shown in Table 2 configural baseline model (MI1) indicated an adequate fit for social groups and gender, meaning that these groups held the same factorial structure. MI2 measurement model also

presented an adequate fit, and the critical values of  $\Delta$  CFI and  $\Delta$  RMSEA were well below the recommended cutoff values. This indicates the existence of metric invariance both for social groups and gender, meaning that these groups responded to the items in the same way. Lastly, MI3 presented an adequate fit, and the critical values of  $\Delta$  CFI and  $\Delta$  RMSEA were well below the recommended cutoff values for genders, meaning that respondents who have the same score on the latent factor would obtain the same score on its indicator regardless of their group membership (Milfont & Fischer, 2010). Meanwhile for social groups only  $\Delta$  RMSEA was well below the recommended cutoff value. Consequently, after inspecting the parameters, we identified one potential non-invariant value (i.e., item Con1) that may justify the  $\Delta$  CFI value of non-invariance. In other words, the concern subscale of CAAS-SF does not reach full scalar invariance once university students reported a higher intercept for this item.

**Table 2**

*Goodness-of-fit statistics for tests of multigroup invariance across social groups and gender*

Model	$\chi^2/df$	TLI	CFI	NFI	RMSEA (90% CI)	Comparison	$\Delta$ CFI	$\Delta$ RMSEA
Social groups								
MI1 (configural)	3.785	.935	.951	.934	.049 (.044-.054)	-	-	-
MI2 (metric)	3.712	.937	.947	.929	.048 (.043-.053)	M2 vs. M1	.004	.001
MI3 (scalar)	4.506	.918	.924	.905	.055 (.050-.060)	M3 vs. M2	.023	.007
Gender								
MI1 (configural)	3.432	.944	.958	.941	.046 (.040-.051)	-	-	-
MI2 (metric)	3.234	.949	.957	.939	.044 (.039-.049)	M2 vs. M1	.001	.002
MI3 (scalar)	3.107	.951	.955	.935	.043 (.038-.047)	M3 vs. M2	.002	.001

## Discussion

Our study sought to validate CAAS-SF across two Portuguese social groups (i.e., university students, working adults), therefore, contributing to the growth of career development literature. Overall, our findings are consistent with previous studies on the measure (e.g., Işık et al., 2018; Maggiori et al., 2017; Yu et al., 2020).

Specifically, CFA's results supported the four-factor hierarchical structure of the CAAS-SF across university students and working adults, which is in line with adaptability's multidimensional definition (Savickas, 2021; Savickas & Porfeli, 2012) and CAAS 24-items version structure (Monteiro & Almeida, 2015; Savickas & Porfeli, 2012). The same CAAS-SF internal structure was found among Turkish high students, undergraduates, and working adults (Işık et al., 2018); Chinese undergraduates and working adults (Yu et al., 2020), Swiss adults (Maggiori et al., 2017), and Indian graduates (Pal & Jena, 2021). Furthermore, in the Portuguese context, the reduction of measure's number of items does not weaken

the goodness of fit, compared to the 28 and 24 versions (Duarte et al., 2012; Monteiro & Almeida, 2015). Together, these findings provide additional support for the career adaptability literature and CAAS-SF factorial structure.

In line with career adaptability literature are also the Pearson correlations computed between CAAS-SF dimensions and CAAS-SF dimensions-total score. Our results support the idea that each measure's factor, although correlated, assesses a distinct adaptability resource (Savickas & Porfeli, 2012). Additional correlation analyses support the high convergence between CAAS-SF and CAAS 24-items and indicate that CAAS-SF is a measure of decision-making resources rather than a measure of vocational identity or overall life satisfaction. Also, these additional correlations indicate significant and positive relations between adaptability resources and career results of increased goal clarity and life satisfaction, as found in previous studies with university students and working adults (e.g., Merino-Tejedor et al., 2016; Ramos & Lopez, 2018; Takao & Ishiyama, 2021). Nevertheless, the correlation between adaptability and life satisfaction in our sample is weak. To our best knowledge, there is no previous evidence, regarding this correlation, with Portuguese working adults. However, the previous studies, one with Japanese (Takao & Ishiyama, 2021) and another with American (Ramos & Lopez, 2018) workers, also indicate no strong correlation between these variables. Only a moderate correlation was found. This may indicate that engaging in environmental exploration, thinking about the future, making committed choices, and improving abilities have a minor impact on individuals' perceived life satisfaction. Indeed, according to CCT, adaptability is likely to have stronger correlations with career responses (e.g., career planning and exploratory behaviors) rather than with career adaptation results (e.g., life satisfaction) (Savickas, 2021).

Regarding Cronbach alpha reliability estimates, our findings indicate values above the recommended cutoff point of .70 (Nunnally, 1970), indicating that CAAS-SF has good internal consistency. When compared to the Portuguese versions of 24 and 28 items, our reliability estimates are slightly below. Possibly due to the items' reduction (Nunnally, 1970). Nevertheless, considering the recommended cut-off point, both career counselors and researchers may be confident about the measure's property to evaluate participants' adaptability level.

Lastly, we explore if CAAS-SF four-factor hierarchical structure was invariant across social groups and gender, a key subject in studies looking at comparative groups. This is an advance over previous CAAS studies in Portugal, which were mainly focused on measure's reliability and factorial structure. In line with previous studies testing CAAS-SF invariance, our findings also supported configural, metric, and scalar invariance across genders (e.g., Işık et al., 2018; Yu et al., 2020). For the Portuguese context,

where gender norms are still present, these results indicate that regardless of the background, adaptability construct understanding is similar for men and women. However, for social groups, only configural and metric invariance were supported. Scalar invariance raised doubts once the  $\Delta$  CFI index did not accomplish the recommended cutoff point, contrary to  $\Delta$  RMSEA (Chen, 2007). As a result, we release item 1 of the concern factor. Maggiori et al. (2017) also applied this strategy to meet scalar invariance across gender and linguistic groups, considering a more restrictive  $\Delta$  CFI cutoff point. For our sample, this parameter release specifically indicates that university students score higher than working adults on “thinking about what my future will be like” (item 1). In other words, this result may echo previous evidence on the prevalence of anxiety feelings about future career paths among university students (e.g., Shin, 2019). Being less familiar with the labor market when compared to working adults, Portuguese university students may feel a greater need to reflect on and plan the desired career path. In other words, the concern factor’s total score in university students seems to be better explained by future career anticipation and perceived need for planning when compared with working adults. Moreover, anxiety about the future career path may also be explained by these students’ developmental and career stages. In line with national data (Hauschildt et al., 2021) our students’ group is, on average, between 17 and 25 years old, and the workers’ group is between 29 and 51 years old. This means that Portuguese students are still developing their self-concept (Newman & Newman, 2015). As a result, career choices may be under consideration, requiring more reflection and anticipation. Meanwhile, the vocational identity of workers may have already crystallized and their role as workers may be more stable (Hartung, 2021; Savickas, 2005). These hypotheses may justify the concern-factor partial scalar invariance across social groups.

### **Practical implications**

Our findings support CAAS-SF reliability and validity in the Portuguese context of university students and working adults, representing an economical alternative to the CAAS 24-items for evaluating individuals’ career adaptability resources. This finding is an advantage both for research and practice, specifically when facing time constraints or participants’ fatigue. Therefore, we encourage CAAS-SF use among Portuguese youngsters and adults, as a means to stimulate the development of career adaptability resources, to evaluate career interventions’ effectiveness, or even to assess career adaptability differences between or across the same person. In other words, consistent with CAAS purpose (Maggiori et al., 2017; Savickas & Porfeli, 2012), this shorter version may be used in career counseling, organizational, and research contexts.

Moreover, the measurement invariance found across genders allows us to apply CAAS-SF indistinctly among men and women. In other words, our results encourage CAAS-SF use in comparative gender studies, once any difference found between groups will be justified by construct fluctuations rather than attributes of the measure. The same is true for social groups although concern factor partial invariance. Firstly, because amongst the three items of concern factor, only item 1 varied (Vandenberg & Lance, 2000). Secondly, because the intercept of this factor remained equal across the social groups. As a result, CAAS-SF also remains reliable for comparative studies (Jiang et al., 2017) aiming to analyze university students' and working adults' levels of career concern, control, curiosity, and confidence.

### **Limitations and future directions**

To encourage future studies, it is relevant to caution about present study limitations. Specifically, we recall that our study presents a cross-sectional design. Therefore, we were focused on CAAS-SF criterion-related validity through Pearson correlations and CAAS-SF internal structure through Cronbach alpha reliability, factorial, and invariance analyses. Future studies could extend this knowledge by exploring CAAS-SF predictive power using a longitudinal design. Furthermore, we encourage our study replication to verify if concern factor partial invariance for social groups remains stable or is a characteristic of the present sample. Considering the non-probability sampling method, the numerical disproportion among groups may influence the results. The same is true for gender. Future studies should consider this aspect, analyzing the invariance between men and women within the same category (i.e., students versus workers) to control variables as participants' career development stage (e.g., Hartung, 2021; Savickas, 2005). Another sample characteristic to highlight is the presence of working students. Although the working students from our sample mostly share the same characteristics of the social group to which they belong (e.g., career development stage), future studies should be cautious about this variable. We agree that having two occupations simultaneously, studying and working, may require another sense of adaptability, in line with CCT's propositions (Savickas, 2005).

In light of career adaptability's psychosocial nature (Savickas & Porfeli, 2012), we recommend further studies of CAAS-SF across different countries. For example, we suggest studying measure's invariance across countries sharing the same language but not the same culture (e.g., Brazil, Portugal, Angola). Moreover, considering that adaptability construct is integrated into the Career Construction Model (Savickas, 2005, 2021), future developments in model testing may be performed. Now, using the shortened version of CAAS as an assessment of career adaptability once our results support its validity, therefore preventing participants' fatigue and dropout of the study.

Another suggestion for future research is the selection of more than two criterion measures. Despite our need to maintain a reduced protocol for online data collection, we recognize the importance of further investigation regarding construct's correlations. Considering the weak correlation found between adaptability and perceived life satisfaction among Portuguese workers, future studies could explore adaptability's relation with other constructs. Namely, the correlation with career adapting (e.g., career planning and exploratory behaviors) which, according to CCT where the adaptability construct is framed, is an antecedent variable to career results (e.g., life satisfaction).

## **Conclusion**

In sum, our finds support CAAS-SF use among Portuguese university students and working adults of both genders. On the one hand, we hope this validation study encourages further theoretical advances, as on CCT (Savickas, 2021), where adaptability plays a key role. This might be accomplished through new national and cross-cultural studies. On the other hand, we hope this shorter version will facilitate adaptability monitorization among these groups.

A shorter itemized measure usage prevents participants' fatigue and reduces response time, decreasing dropout probability. This methodological option is, therefore, advantageous in a fast-paced context, where there is a need to assess different variables, whether in career counselling, employee performance evaluation, or research.

## Appendix A

**Table A1**

*Career Adapt-Abilities Scale–Short Form (Portuguese version)*

CAAS	CAAS-SF	Items
Concern		
Conc1	Conc1	Pensar como vai ser o meu futuro [ <i>Thinking about what my future will be like</i> ]
Conc3	Conc2	Preparar-me para o futuro [ <i>Preparing for the future</i> ]
Conc4	Conc3	Tomar consciência das escolhas de carreira que tenho de fazer [ <i>Becoming aware of the educational and vocational choices that I must make</i> ]
Control		
Cont2	Cont1	Tomar decisões por mim próprio(a) [ <i>Making decisions by myself</i> ]
Cont3	Cont2	Assumir a responsabilidade pelos meus atos [ <i>Taking responsibility for my actions</i> ]
Cont5	Cont3	Contar comigo próprio(a) [ <i>Counting on myself</i> ]
Curiosity		
Cur2	Cur1	Procurar oportunidades para me desenvolver como pessoa [ <i>Looking for opportunities to grow as a person</i> ]
Cur3	Cur2	Explorar alternativas antes de fazer uma escolha [ <i>Investigating options before making a choice</i> ]
Cur4	Cur3	Estar atento(a) às diferentes maneiras de fazer as coisas [ <i>Observing different ways of doing things</i> ]
Confidence		
Conf2	Conf1	Ser consciencioso(a) e fazer as coisas bem [ <i>Taking care to do things well</i> ]
Conf3	Conf2	Desenvolver novas competências [ <i>Learning new skills</i> ]
Conf4	Conf3	Dar sempre o meu melhor [ <i>Working up to my ability</i> ]

*Note.* Table adapted from Maggiori et al. (2017).

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### **3. The Student Career Construction Inventory: Validation with Portuguese University Students**

Soares, J. Taveira, M.C., Cardoso, P. Silva, A. D. (2022). The Student Career Construction Inventory: Validation with Portuguese University Students. *International Journal for Educational and Vocational Guidance*, 1-17. <https://doi.org/10.1007/s10775-022-09553-z>

### **Abstract**

The Student Career Construction Inventory measures students' adapting behaviors. The present study validates this inventory in a sample of 314 Portuguese college students. Measurement confirmatory factorial analysis indicates better fit for the 18-items measurement model, comparing to the 25-items model. Reliability and criterion-related analyses evidence the inventory validity and use. Structural model path analysis shows significant relations between measures of adaptability, adapting behaviors, and vocational identity results. This indicates that self-regulatory resources may drive career decidedness. While further longitudinal studies are needed to test the inventory and model's predictive validity, our results provide developments to the literature on career measurements.

*Keywords:* adapting, career construction model, measurement, university students, validation



## Introduction

Global markets and accelerated technological developments affect employment structure worldwide (e.g., Duarte et al., 2019; Hirschi, 2018; World Economic Forum, WEF, 2018). Hierarchical and long-term careers are now more competitive and flexible, increased by part-time and temporary jobs (e.g., Pabollet et al., 2019; Savickas, 2011; WEF, 2018). Job transitions are not only more frequent across the life span, but they are also harder (Hirschi, 2018; Hood & Creed, 2019). Furthermore, softer skills and competencies as creativity, problem-solving or communication are expected from individuals (e.g., Pabollet et al., 2019; Hood & Creed, 2019; WEF, 2018). The age of information requires lifelong learners, who can create their career opportunities and manage different life roles without losing their self-identity (e.g., Hirschi, 2018; Hood & Creed, 2019; Savickas, 2021; WEF, 2018). Efforts to help people manage their careers in a globalized and multicultural environment led to theoretical and practical advances in vocational psychology (Brown & Lent, 2013, 2021; Savickas, 2011). Currently, some of the most cited career frameworks include the social cognitive theory (SCCT; Lent et al., 1994; Lent & Brown, 2013), the psychology of working theory (PWT; Blustein, 2006; Blustein & Duffy, 2021), the career construction model (CCM; Savickas, 2013, 2021), and the protean and boundaryless career theory (Arthur, 2014; Hall, 2004).

CCM presents a dynamic and developmental perspective (Rudolph et al., 2019) addressing the current socio-economic scenario, which is useful to understand self-career management among university students. Specifically, this model considers interpersonal and interpretative processes, through which individuals make meaning of their careers and direct vocational behaviors to face career transitions (e.g., school-school, school-work, work-work, work-retirement) and/or traumas (e.g., involuntary unemployment) (Savickas, 2013, 2021). During higher education entry and adaptation phases, university students may face numerous challenges (e.g., heterogeneity, emotional, vocational, academic), as well as retention and exit (e.g., Carreira & Lopes, 2019; Mestan, 2016; Ricks & Warren, 2021). CCM posits that a better adaptation to academic challenges may be achieved by students' career adaptivity, adaptability, adapting, and adaptation (Savickas, 2013, 2021; Savickas & Porfeli, 2012). Career adaptivity, the first component, refers to individuals' personality traits of willingness to cope with career transitions and/or traumas. Career adaptability, the second component, refers to individuals' career self-regulation competencies. Specifically, this component includes four psychosocial resources: concern (i.e., anticipating one's future role as a worker); control (i.e., influencing the environment for personal goals achievement); curiosity (i.e., exploring future work scenarios and possible selves); and confidence (i.e., believe in one's capabilities to pursue career and life aspirations). Career adapting, the third component,

refers to individuals' adaptative behaviors performed in response to environmental career challenges. These include behaviors like planning, exploring, deciding, skilling, transitions managing, among others (e.g., Hirschi et al., 2015; Lent & Brown, 2013). Career adaptation, the fourth component, defined as individuals' harmony between inner and outer needs, emerges as a result of career adaptivity, adaptability, and adapting. In other words, students with flexibility and willingness to change (adaptivity), equipped with resources to cope with career transitions or traumas (adaptability), will adopt more career behaviors (adapting), which foster career adaptive results of success, satisfaction, and development (Savickas, 2013, 2021; Savickas & Porfeli, 2012). Indeed, studies among university students evaluating the relation between model components confirm this sequence of adaptivity, adaptability, adapting, and adaptation (e.g., Nilforooshan, 2020; Soares et al., 2021; Yıldız-Akyol & Öztemel, 2021). For example, Yıldız-Akyol and Öztemel (2021), concluded that prior academic success increases university students' adaptability, motivating adaptative behaviors which resulted in greater feelings of academic satisfaction. Moreover, studies indicate direct and positive relations between adaptability and adaptation (e.g., Holliman et al., 2018; Merino-Tejedor et al., 2016; Soares et al., 2021; Wilkins-Yel et al., 2018), as well as the mediation role of adaptability and adapting between adaptivity and adaptation (e.g., Nilforooshan, 2020; Soares et al., 2021; Yıldız-Akyol & Öztemel, 2021). Recalling Yıldız-Akyol and Öztemel's (2021) studies, this means that prior academic success may increase students' academic satisfaction depending on their adaptability and adaptive behaviors.

Across literature, each dimension of CCM has been evaluated by different measures (e.g., Johnston, 2018; Rudolph et al., 2017). For example, adaptivity includes measures of personality, core-self evaluations or cognitive abilities (e.g., Hirschi et al., 2015; Šverko & Babarović, 2019; Yıldız-Akyol & Öztemel, 2021). The same happens with career behaviors, usually measured by career planning, career decision-making self-efficacy or difficulties (e.g., Babarović & Šverko, 2016; Hirschi et al., 2015; Johnston, 2018; Karacan-Ozdemir, 2019; Šverko & Babarović, 2019). To address this topic in more detail, we recommend reading Rudolph and collaborators' metanalysis (Rudolph, Lavigne, & Zacher, 2017; Rudolph, Lavigne, Katz, et al., 2017). Despite the reliability between these measures and CCM-dimensions' definition, heterogeneity makes studies' comparison difficult. Therefore, *the career adaptability research team* developed two measures. First, they designed a measure to evaluate career adaptability, comprising 24 items distributed by four psychosocial resources (i.e., concern, curiosity, confidence and control). This measure was initially validated and published in an international study with 13 countries, proving the measure's composite structure (Savickas & Porfeli, 2012). Secondly, the team developed a measure to evaluate career adaptive behaviors and thoughts, the *student career construction*

*inventory* (SCCI). However, only recently the authors published the inventory validation research among high school and university students (Savickas et al., 2018).

The SCCI was designed as a specific measure to assess career adaptive behaviors of students' exploratory phase (Savickas et al., 2018). This phase includes behaviors as self and occupations exploration, transition managing, career decision-making, skilling, or the formulation of specific goals and plans grounded on a clearer self-concept (e.g., Hirschi et al., 2015 ; Lent & Brown, 2013 ; Nilforooshan, 2020). As a result, the initial form of SCCI included 25 items distributed by five factors (i.e., *crystallizing* vocational self-concept, *exploring* occupations, *deciding* on an occupational choice, *skilling* or instrumentation to get relevant training, and *transitioning* from school to work), representing these typical behaviors of career exploratory phase. Nevertheless, exploratory factor analysis conducted by Savickas et al. (2018), on high school and college students, indicated the need to exclude items and reduce factors number to four. Specifically, the authors excluded one item from crystallizing, four from exploring, one from skilling, and another from transitioning. Regarding these last two factors, exploratory factor analysis also indicated items saturation on a single factor. In other words, the items referring to skilling and transitioning merged to form a single factor representing prior qualification work for entry into the desired job. Hence, SCCI final form included 18 items distributed by four factors (i.e., *crystallizing* vocational self-concept, *exploring* occupations, *deciding* on an occupational choice, and *preparing* to implement that choice), presenting good fit indices (CFI = 0.955, RMSEA = 0.065, SRMR = 0.045) and reliability ( $0.84 < \alpha < 0.94$ ) among high school, undergraduate and graduate students (Savickas et al., 2018).

To our knowledge, this 18-item form is only validated for Turkish high school (Öztemel & Akyol, 2020) and university students (Yıldız-Akyol & Öztemel, 2021), also presenting good psychometric properties. For example, Yıldız-Akyol and Öztemel (2021) indicated good fit indices for first (CFI = 0.93, RMSEA = 0.064, SRMR = 0.054) and second (CFI = 0.92, RMSEA = 0.066, SRMR = 0.058) order models, as well as, good reliability ( $0.68 < \alpha < 0.89$ ). Nevertheless, other countries still seem to use the 25-item form. Possibly due to the newness of Savickas and collaborators' validation study. This can be seen, for example, in studies among Croatian teenagers (Babarović & Šverko, 2016; Šverko & Babarović, 2019) and Portuguese university students (Rocha & Guimarães, 2012). Overall, this longer form also presents good fit indexes (e.g., second order model with CFI = .94, RMSEA = .07, SRMR = .05, Rocha & Guimarães, 2012) and reliability (e.g.,  $0.73 < \alpha < 0.89$ , Rocha & Guimarães, 2012). As a result of the new evidence presented by Savickas et al. (2018), and the inconsistency of SCCI-form used among different countries, more studies are needed. First, to compare, in the same context, the fit of 25 and 18-items forms. Considering the advantages of the latter in long protocols. Secondly, to provide an alternative for cross-

cultural studies. Specifically, when one of the contexts shows good psychometric qualities for only one of the SCCI-forms or has only one of them validated.

Therefore, our study aims to reanalyze SCCI psychometric properties, comparing the 25-item model with the 18-item model in a sample of Portuguese university students. We expect to obtain (H1) good fit and (H2) good reliability indices for both models. Moreover, in line with the original study (Savickas et al., 2018), we will evaluate concurrent validity with a measure of adaptability (i.e., career adapt-ability scale) and another of adaptation (i.e., vocational identity scale). The latter focused on assessing the degree of vocational certainty. Specifically, it focuses on the extent to which participants have clear and stable picture of their goals, interests, personality, and strengths, to make career decisions (e.g., Holland et al., 1980; Santos, 2010). These are highly required tasks across university years (e.g., “Which course to choose?”, “What I need to do to achieve my aspirations?”) (e.g., Álvarez-Pérez & López-Aguilar, 2020), and therefore a reason to include vocational identity as main adaptation result in our study. The CCM model will also be partially tested with the SCCI as a measure of adapting responses. We considered the adaptation dimensions of adaptability, adaptative behaviors, and adapting results. Actually, the literature has shown that adaptability is a stronger predictor than adaptivity, in predicting adapting results (e.g., Merino-Tejedor et al., 2016; Öztemel & Akyol, 2020, Yıldız-Akyol & Öztemel, 2021). Furthermore, in some cases, it appears that the adaptivity-adapting relation is either not found or only occurs through adaptability (e.g., Merino-Tejedor et al., 2016; Nilforooshan, 2020; Taber & Blankemeyer, 2015). These are congruent with theoretical assumptions stating “the psychological trait of adaptiveness by itself is insufficient to support adaptive behaviors” (Savickas & Porfeli, 2012, p. 662). This empirical evidence, tandem with the need to be parsimonious in the protocol and model for analysis, supported our choice to perform a first SCCI evaluation, on the CCM model, without adaptivity. We expect (H3) positive and significant relations between SCCI-adaptability and SCCI-adaptation, supporting both SCCI and (H4) CCM validity (Savickas et al., 2018).

## **Method**

### **Participants and Procedure**

A consent for the Portuguese adaptation of SCCI was obtained from the original authors (Savickas et al., 2018). One psychology researcher, a Portuguese native speaker familiarized with the inventory, did the translation. This was followed by a review of an independent researcher. After consensus, a back translation was performed by a Portuguese-English bilingual, external to the study and trained in English

language. Afterwards, the research protocol was elaborated on SPSS Data Collection. At the beginning of the research protocol, we presented the study's aim and guaranteed data confidentiality and anonymity. The participants' recruitment took place from November 2020 to February 2021. A two-step data collection was performed. Firstly, we emailed Portuguese students' associations and personal contacts to fill in the protocol. Secondly, we emailed the same Portuguese students' associations offering a free webinar on self-career management. This webinar began with an invitation to fill in the protocol and, only afterwards, the self-career management presentation took place. At the end of this webinar, the participants received a certificate. Across the data-collection procedure, the participants responded to all items.

Three hundred and fourteen Portuguese university students, whose estimated response time was 10 minutes, voluntarily responded to the entire protocol. The sample included 260 (82.8%) women and 53 (16.9%) men, aged 17 to 47 ( $M = 21.5$ ,  $SD = 4.32$ ), 301 (95.9%) identified as Caucasians, three (1%) as Black, and 10 (3.2%) as another ethnicity. The majority ( $n = 234$ , 74.5%) attended university educational institutions. Only 80 (25.5%) attended polytechnic institutions. Together, these polytechnic and university educational institutions represent regions from the North to South of Portugal, including Azores. The students were enrolled in the following courses: 97 (30.9%) in Health and Welfare, 96 (30.6%) in Social Sciences, Journalism and Information, 50 (15.9%) in Natural Sciences, Mathematics and Statistics, 26 (8.3%) in Engineering, Manufacturing and Construction, 16 (5.1%) in Arts and Humanities, 11 (3.5%) in Education, 8 (2.5%) in Business, Administration and Law, 8 (2.5%) in Agriculture, Forestry, Fisheries and Veterinary, and 1 (0.3%) in Information and Communication Technologies (educational field categories defined by UNESCO, 2015). At the time of the data collection, 44 (14%) students were studying and working, of which only 21 (6.7%) had student worker status.

## **Measures**

### ***Adaptability***

Adaptability resources were accessed with the Career Adapt-Ability Scale (CAAS, Savickas & Porfeli, 2012), adapted for Portugal by Monteiro e Almeida (2015). This measure comprises 24 items divided by four dimensions, six items each. *Concern* about future options (e.g., "Preparing for the future"), *control* over one's possible future (e.g., "Keeping upbeat"), *curiosity* about possible selves and future scenarios (e.g., "Exploring my surroundings"), and *confidence* on one's career path (e.g., "Solving problems"). The participants responded in a 5-point Likert scale ranging from 1 (*not strong*) to 5 (*very*

*strong*). Monteiro e Almeida (2015) found good reliability indices ( $0.78 < \alpha < 0.92$ ). The same applies for the present sample ( $0.81 < \alpha < 0.93$ ).

### ***Adapting***

Adaptive behaviors were accessed with the SCCI (Savickas et al., 2018) 25-items' version (see Appendix A, Table A1). Some sample items include "Knowing how other people view me" and "Reading about occupations". From a 25-model structure, Savickas et al. (2018) eliminated items seven, eight, nine, 13, 14, 20 and 24, resulting in an 18-item version. The response is given in a 5-point Likert scale ranging from 1 (*I have not yet thought much about it*) to 5 (*I have already done this*). Savickas et al. (2018) found good reliability indices both among graduate ( $0.76 < \alpha < 0.89$ ) and undergraduate ( $0.79 < \alpha < 0.91$ ) students.

### ***Adaptation***

Adaptation results were accessed with the Vocational Identity Scale (VIS, Holland et al., 1980) adapted for Portugal by Santos (2010). It includes 18 items (e.g., "I feel uncertain about what professions I could do well") answered in a *true* or *false* scale. The participants evaluated if they have a clear and stable picture of their talents, interests and goals. In a sample of university students, Santos (2010) found a good reliability index ( $\alpha = 0.79$ ). The same applies for the present sample ( $\alpha = 0.85$ ).

## **Results**

### **Part I: Psychometric Analyses of the SCCI**

#### ***Confirmatory factor analysis***

A confirmatory factor analysis for the SCCI measurement model evaluation was run in AMOS 27 for Windows. In line with theoretical framework (e.g., Babarović & Šverko, 2016; Rocha & Guimarães, 2012; Savickas et al., 2018), we first evaluated the 25-items' structure. Two measurement models were specified. Model 1 followed a five-factor structure, assuming 25 observable variables and five correlated latent variables. Model 2 considered a hierarchical structure, assuming 25 observable variables, five first-order, and one second-order latent variable which represents career adaptive responses. Later, we evaluated the 18-items structure, also specifying two measurement models. Model 1 followed a four-

factor structure with 18 observable variables and four correlated latent variables. Model 2 considered a hierarchical structure with 18 observable variables, four first-order and one second-order latent variables.

Assumptions of linearity, normality, absence of multicollinearity, and outliers were verified (Tabachnick & Fidell, 2013). As evidence of Multivariate non-normality evaluated through Mardia's coefficient, we performed a bootstrap analysis with 500 samples (Gilson et al., 2013). Given the existence of 13 outliers identified through Mahalanobis' Distance, we ran analyses with (N = 314) and without (N = 301) these extreme observations to control possible biases (Pinto et al., 2013). Due to goodness-of-fit variability between results with and without outliers, we used the results without outliers.

Results for the specified measurement models are presented in Table 1. Overall, indices indicated an acceptable measurement-fit for the 18-items models ( $\chi^2/df$  lower than three, CFI above 0.90, RMSEA below 0.08, and SRMR below 0.10) (Hair et al., 2010; Hu & Bentler, 1999). Both 18-items correlational model ( $\chi^2/df = 2.653$ ; CFI = 0.927; SRMR = 0.062; RMSEA = 0.074) and 18-items hierarchical model ( $\chi^2/df = 2.899$ ; CFI = 0.917; SRMR = 0.065; RMSEA = 0.080) showed acceptable fit. Regarding the 25-items' models CFI indices indicated a close to acceptable fit. Moreover, AIC values from 25-items and 18-items models support a better fit for the latter (i.e., lower AIC values indicate a better fit, Oliveira et al., 2018). Therefore, we used the 18-items form for further analysis.

**Table 1**

*Fit indices for specified measurement models (sample without outliers, N = 301)*

	$\chi^2/df$	CFI	SRMR	RMSEA	AIC
Model 1 (25 items)	2.668	0.894	0.055	0.075	827.086
Model 1 (18 items)	2.653	0.927	0.062	0.074	426.203
Model 2 (25 items)	2.681	0.891	0.058	0.075	833.957
Model 2 (18 items)	2.899	0.917	0.065	0.080	459.762

### ***SCCI internal consistency and scale inter-correlations***

Table 2 presents SCCI reliability, descriptive analysis and inter-correlations. Coefficient alphas were greater than 0.70, both for the total score and for dimension, indicating good reliability of SCCI (Nunnally, 1970). The correlation magnitudes between each dimension and the total score were strong ( $r > 0.50$ , Cohen, 1988). Moreover, the inter-correlations magnitudes among SCCI four dimensions ranged from moderate ( $0.30 < r < 0.50$ ) to strong (Cohen, 1988), being the correlation between deciding and preparing the highest ( $r = 0.75$ ).

**Table 2***Means, standard deviations, Cronbach's alphas, and correlations among SCCI dimensions and total score*

	1	2	3	4	5	<i>M</i>	<i>SD</i>	$\alpha$
1.Crystallizing						3.75	0.69	0.71
2.Exploring	0.43					3.60	0.98	0.83
3.Deciding	0.46	0.59				3.58	0.99	0.88
4.Preparing	0.42	0.55	0.75			3.57	1.02	0.88
5.Adapting total	0.72	0.75	0.89	0.85		3.64	0.73	0.91

*Note.* All the correlations were significant at  $p < 0.001$

### **SCCI criterion-related validity**

Correlations between adaptability (CAAS), adapting (SCCI), and adaptation (VIS) total scores (table 3) were both positive and significant, ranging from moderate [ $r$  (adaptation-adapting) = 0.37] to strong [ $r$  (adaptability-adapting) = 0.65]. The same happened between adaptability total score and adapting dimensions ( $0.46 < r < 0.58$ ).

**Table 3***Correlations between SCCI, CAAS, and VIS*

	Crystallizing	Exploring	Deciding	Preparing	Adapting total
Concern	0.34	0.43	0.56	0.54	0.58
Control	0.39	0.37	0.48	0.41	0.52
Curiosity	0.45	0.43	0.46	0.48	0.56
Confidence	0.35	0.38	0.44	0.45	0.50
Adaptability total	0.46	0.48	0.58	0.56	0.65
Adaptation total	0.29	0.21	0.41	0.33	0.37

*Note.* All the correlations are significant at  $p < 0.001$ . CAAS measures adaptability, SCCI adapting, and VIS adaptation

Correlations between crystallizing-adaptation total score and exploring-adaptation total score, presented weak Pearson values ( $r < 0.30$ , Cohen, 1988). Meanwhile, adaptation total score highest correlation was with deciding dimension ( $r = 0.41$ ), which represents a moderate correlation ( $0.30 < r < 0.50$ , Cohen, 1998). These results give us confidence to evaluate SCCI in the context of the structural career adaptation model, according to what Savickas et al. (2018) performed.

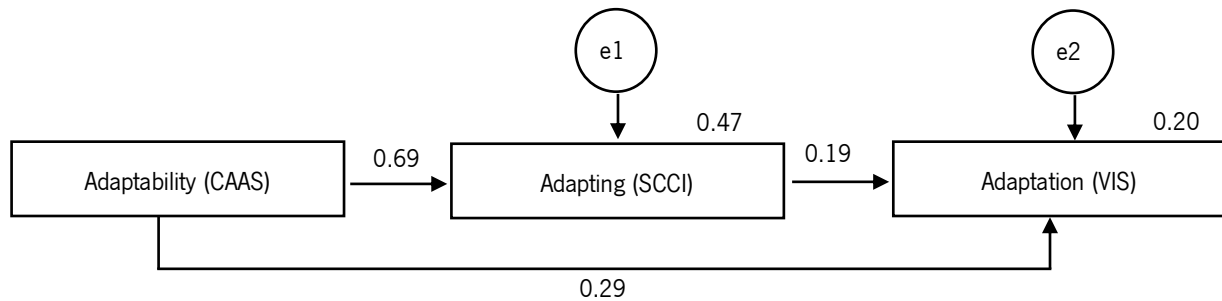
## **Part II: Test for the career adaptation model using SCCI**

Figure 1 portrays a CCM test among the initial 314 Portuguese university students, as non-evidence of outliers through Mahalanobis' Distance (Tabachnick & Fidell, 2013). After the accomplishment of structural-equation-modeling assumptions (Tabachnick & Fidell, 2013), direct



relations were evaluated between adaptability resources, adapting responses and adaptation results. One regression weight was fixed to 1 (Lent et al., 2008).

**Figure 1**  
*Structural career adaptation model test*



*Note.* All standardized regression weights are statistically significant at  $p < 0.05$  ( $N = 314$ ).

Path analysis indicated adequate fit values for CFI = 0.914 and SRMR = 0.061, which is sufficient to assume a structural model adequate fit (CFI above 0.90 and SRMR below 0.10, Hu & Bentler, 1999). However, when analyzing modification indices, AMOS suggested an additional direct path between adaptability resources and adaptation results. The final model is presented in Figure 1. Fit indices indicated an improvement of model-data adjustment (CFI = 0.99, SRMR = 0.019). Indices indicate a good structural model fit (CFI above 0.95 and SRMR below 0.05, Hu & Bentler, 1999).

## Discussion

The present study aimed to evaluate SCCI psychometric properties among Portuguese university students. A model of 25 observable variables and another with 18 observable variables were considered and compared, following Savickas et al. (2018) methodology.

Confirmatory factor analysis indicates an adequate fit, both for first and second order measurement models of 18-items form. Previous studies in Turkish and American contexts also support this evidence (Savickas et al., 2018; Yıldız-Akyol & Öztemel, 2021). Concerning the 25-items' model, we found adequate fit indices except for the CFI. This contrasts with the previous study from Rocha and Guimarães (2012) in a sample of Portuguese university students. These authors found general good fit indices, both for first and second-order SCCI measurement models. Our results partially support H1. Therefore, although the general criteria have been met, both for the 18-item and 25-item forms, we recommend using the former. Its reduced size will be an advantage for studies with long protocols and counseling contexts when clients are less motivated for the process. If the aim is to access adapting

specific behaviors, we recommend the use of correlational model where these behaviors are detailed. In contrast, if the aim is to assess the general level of adapting behaviors development, the hierarchical model should be chosen.

Although SCCI measures a single general factor corresponding to students' career exploration stage (Savickas et al., 2018), we highlight the adequate fit indices found in our heterogeneous sample ranging from 17 to 47 years old. Rocha and Guimarães (2012) also found good fit indices for the 25-item structure analyzed, as well as no differences between young (17-22 years) and mature (above 23 years) students, regarding their career adaptive behaviors. Therefore, we may conclude that the SCCI may be applied to a broader age range. This is advantageous and may be justified by today's information era, as even people at later developmental stages (e.g., establishment) need to continue to explore and learn (e.g., Hirschi, 2018; Savickas, 2011, 2021; WEF, 2018). Future studies on SCCI psychometric properties, considering both 25-items and 18-items' models among individuals from different life stages, (e.g., high school students, employed adults, unemployed) are needed to evaluate the inventory's applicability and invariance.

Results of internal consistency indicate a good reliability index, as expected (H2). Previous research among American and Turkish university students also supports this evidence (Savickas et al., 2018; Yıldız-Akyol & Öztemel, 2021), which gives us the confidence to use SCCI as a measure to evaluate adaptive career behaviors. Moreover, inter-correlations' result among SCCI dimensions and between SCCI total score indicate that each inventory dimension accesses a single-specific career task.

As for criterion-related validity, our results agree with Savickas et al. (2018) supporting H3. Correlations' magnitudes between adaptability, adapting, and adaptation total scores, indicate that the SCCI assesses behaviors instead of psychosocial resources or vocational identity. In addition, correlation results between adaptability-deciding and adaptation-deciding support Savickas et al.'s (2018) statement regarding CAAS as a measure of decision-making resources, and VIS as a measure of decidedness.

Turning to the tenability of CCM, results of confirmatory factor analysis indicate structural models' good fit. Path analysis indicates positive and significant relations between the specified variables, as expected (H4). In other words, our findings indicate that Portuguese university students with self-regulatory resources (i.e., concern, curiosity, control, confidence) will more easily engage in adaptive career behavior and thoughts (i.e., exploring, planning, deciding, crystallizing). As a result, they will present a clearer and stable picture of their talents, interests and goals, which relates with greater decidedness concerning their future career path. This finding supports CCM prepositions about self-construction. According to this theory, it is expected that during university years, youngsters can function

in an integrated way, constructing autobiographical stories (Savickas, 2021). Therefore, these direct relations may indicate that self-regulatory processes, developed during childhood and adolescence, now contribute to career self-management in tandem with life narrative construction. In other words, youngers behaving as motivated agents (i.e., people who explore, plan and make decisions, managing their careers) begin to establish a clear and stable image about their career aspirations and goals, which allows them to be more intentional when giving meaning to their actions, hence, constructing a congruent life story.

In addition to this finding, students' self-regulatory resources seem directly contributing to career decidedness. Across the literature, other studies also found this relation between adaptability and adaptation. For example, adaptability seems to explain more academic engagement (Holliman et al., 2018; Merino-Tejedor et al., 2016), academic satisfaction (Wilkins-Yel et al., 2018), and perceived employability (Soares et al., 2021). As a result, we may argue that career adaptability is a prerequisite to achieve adaptation results of career success, satisfaction, and development. This occurs probably because adaptability encourages the adoption of adaptive behaviors, indirectly contributing to career adaptation results. Indeed, two recent studies with university students presented evidence that support this explanation (Nilforooshan, 2020; Yıldız-Akyol & Öztemel, 2021). Nilforooshan (2020) concluded that adaptability explained students' academic satisfaction through engagement behaviors and career decision-making self-efficacy. Yıldız-Akyol and Öztemel (2021) concluded that adaptability explains students' academic satisfaction through exploration, planning, deciding, and preparation behaviors. In agreement with our findings regarding CCM, we outstand the need for developing career adaptive resources and behaviors among university students. These will provide students with the flexibility to face the volatility of the current social and work environments. As an evaluation of career intervention's outcomes, besides CAAS as a measure of self-regulatory resources (Monteiro & Almeida, 2015; Savickas & Porfeli, 2012), Portuguese counselors may now use SCCI to evaluate the individuals' level of engagement in general and specific adaptive responses (Savickas et al., 2018).

Aware of present study limitations, we recommend caution when interpreting the results. In particular, we performed a cross-sectional study to test a causal model, the CCM. In line with our study aim, structural model fit evidence provides preliminary data supporting SCCI validity in accessing CCM adaptive responses. However, future research with a longitudinal design will be relevant. This will allow a holistic perspective on the career adaptation process. In particular, cross-sectional data provides information about individual response to a limited-period career trauma or task (e.g., entrance to higher education) attending CCM differential perspective (Rudolph et al., 2019). Longitudinal data incorporates career progression and dynamic processes that may change personal life narratives (e.g., Savickas, 2013,

2021). To motivate this research design, we recommend further psychometric scrutiny regarding SCCI predictive validity. Moreover, given the goal of our study to evaluate SCCI psychometric properties, we do not include the adaptivity dimension for economic reasons. Future studies concerned with CCM validation should consider a complete view, including this internal willingness to change.

## **Conclusion**

In sum, our findings support SCCI use among Portuguese university students. Considering the adjustment indices found, we recommend the use of 18-items forms. Moreover, this briefer measure is advantageous in long protocols. While further studies are needed, our results also provide additional evidence that supports the career construction model.

In short, we hope to encourage further worldwide studies and practices with the measure, namely among Portuguese-speaking countries (e.g., Brazil, Angola, Guinea-Bissau). As stated by Savickas et al. (2018) SCCI is useful both for research and counseling purposes. Therefore, it is already possible to foster adaptive career behaviors among university students, evaluating this intervention's effectiveness.

## Appendix A

**Table A1**

*Students Career Construction Inventory (SCCI) [Inventário de Construção de Carreira]*

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Items

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### Crystallizing vocational self-concept

1. Forming a clear picture of my personality [*Construir uma percepção clara da minha personalidade*]
2. Recognizing my talents and abilities [*Reconhecer os meus talentos e habilidades*]
3. Determining what values are important to me [*Determinar que valores de vida são importantes para mim*]
4. Knowing how other people view me [*Saber como as outras pessoas me veem*]
5. Identifying people that I want to be like [*Identificar pessoas que são como eu gostaria de ser*]
6. Finding out what my interests are [*Descobrir quais são os meus interesses*]
7. Setting goals for myself [*Estabelecer objetivos para mim*]

### Exploring occupations

8. Interviewing people in a job that I like [*Entrevistar pessoas que trabalham com o que eu gosto*]
9. Discussing my career with teachers and advisors [*Discutir sobre a minha carreira com professores e psicólogos*]
10. Learning about different types of jobs [*Aprender sobre diferentes tipos de trabalho nas áreas que me interessam*]
11. Reading about occupations [*Ler sobre profissões ou áreas de atuação que me chamam à atenção*]
12. Investigating occupations that might suit me [*Investigar sobre profissões ou áreas de atuação que possam combinar comigo*]
13. Working at a part-time job related to my interests [*Trabalhar a tempo parcial numa atividade relacionada com os meus interesses (ex.: estágios, projetos extracurriculares, voluntariado...)*]
14. Determining the training needed for jobs that interest me [*Identificar a formação necessária para os trabalhos que me interessam*]

### Making decisions

15. Deciding what I really want to do for a living [*Decidir o que realmente quero fazer da minha vida profissional*]
16. Finding a line of work that suits me [*Encontrar tipos de trabalhos que tenham a ver comigo*]
17. Selecting an occupation that will satisfy me [*Escolher uma profissão que me irá satisfazer*]
18. Planning how to get into the occupation I choose [*Planear como me inserir no trabalho e profissão que eu escolhi*]
19. Reassuring myself that I made a good occupational choice [*Assegurar-me de que fiz uma boa escolha profissional*]

### Skilling

20. Developing special knowledge or skill that will help me get the job I want [*Desenvolver conhecimentos ou habilidades específicas que me ajudarão a conseguir o trabalho que eu quero*]
21. Finding opportunities to get the training and experience I need [*Procurar oportunidades para obter a formação e a experiência que preciso*]
22. Beginning the training I need for my preferred job [*Começar a formação/treino necessário para desempenhar o trabalho que escolhi*]
23. Qualifying for the job that I like best [*Qualificar-me para o trabalho que eu mais gosto*]

### Transitioning from school-to-work

24. Making plans for my job search [*Fazer planos para a minha procura de trabalho*]
  25. Getting a job once I complete my education or training [*Conseguir um trabalho depois de concluir os meus estudos ou formação*]
- 

*Note.* The 18-items SCCI presents the following distribution of items – 1-6 (crystallizing); 10-12 (exploring); 15-19 (deciding); 21-23 and 25 (preparing)

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#### **4. Career Adaptation in Higher Education: A Study with Non-Working and Working Students**

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### **Abstract**

The career construction and sociocognitive career theories were considered to test an integrative model of career adaptation in higher education. Participants were 523 Portuguese university students (non-working,  $n = 335$ ,  $M_{age} = 20.64$ ; working,  $n = 188$ ,  $M_{age} = 29.05$ ), who completed measures of social support, protean orientation, adaptability and adapting as adaptation predictors, and career certainty, academic well-being, and life satisfaction as adaptation outcomes. Multigroup path analysis results indicated a good fit of the model and invariance across groups after some changes. Although more studies are needed to explore the range and limits of the proposed model validity, our findings allow the career development literature extension while informing the practice. Career counselors might facilitate university students' adjustment by helping them expand their social network and develop their career attitudes.

*Keywords:* academic adaptation, higher education, non-working students, working students, career.

## Introduction

Academic adaptation in Higher education is defined as a complex process involving the capacity to cope with academic (e.g., adapting to new learning paces and methods), personal and emotional (e.g., being autonomous, managing life roles), social (e.g., coping with family separation), and career challenges (e.g., identification and commitment to a course) (e.g., Araújo et al., 2014; Gazo and Romero-Rodriguez, 2019). As a result, some students may struggle to adapt. A particularly vulnerable group is the working students. This group includes workers who accumulate student functions for at least six months and may or may not be legally recognized as such, depending on factors such as the student's academic achievement (DGEEC 2023). Typically, the literature distinguishes this group between “students who work” and “employees who study”, depending on the salience that each role plays in people's life (e.g., Carreira and Lopes, 2020). In other words, students who work prioritize study, and their motivations for working include the desire to get extra money for personal expenses. This subgroup usually includes younger people. Meanwhile, workers who study prioritize work. Typically, this group comprises older students who see the study as a way to advance their careers, renew their knowledge, or even change their path.

Regardless of these fluctuations, both subgroups face added challenges in managing time between life roles (e.g., study, work, family), which can often generate conflicts (e.g., Tetteh and Attiogbe, 2019). For example, if we consider the Portuguese context where the average time spent on academic activities is around 42 hours per week (European Commission 2017) and a full-time worker is required to work at least 35 hours per week, we conclude that the time left after a working day to dedicate to study and other activities (e.g., rest) is scarce, compared to the 42 hours used by those who do not work. This may justify why studies comparing non-working with working students find more health problems (e.g., anxiety, emotional exhaustion), and worse levels of academic performance and satisfaction for the latter group (e.g., Chiang et al., 2020; Santana and Salcedo, 2013; Tessema et al., 2014). Literature indicates that working students are more susceptible to dropping out due to difficulties in the academic adaptation process (e.g., Hovdhaugen, 2015). Eventually, throughout the academic journey, these students may be forced to decide between continuing their studies or working.

In Portugal, this choice scenario seems even more salient. In 2021, Portugal was 29% points behind the average of the European Union in the number of university students working (Hauschildt et al., 2021). According to OECD (2022) report, this may be justified by the Portuguese institutions' greater focus on traditional students' needs (i.e., non-working full-time young students, Sánchez-Gelabert and Andreu, 2017), presenting a relatively inflexible educational offer (e.g., few options after working hours).

As a result, fewer working students attend this level of education, or for those who attend we may observe more difficulties in adapting. In the long run, we may expect a negative impact, both on individuals' career prospects (e.g., graduate, reskilling) and in the labor market (e.g., lack of specialized human resources) (World Economic Forum 2020; OECD 2022). It is, therefore, urgent to understand which resources facilitate the working students' adaptation to transform higher education into an appealing and inclusive environment. In particular, because the expression of these students in higher education has been steadily increasing in Europe. Including in Portugal, despite its lower expression compared to other countries (e.g., 85% of working students in Netherlands versus 49% in Portugal). The last eurostudent report indicates that, on average, almost 80% of European students combine their studies with work, and around 60% work during their lecture period (Hauschildt et al., 2021). This increase may be explained by factors such as the current labor market requirements of futureproof skills, thus, a lifelong learning approach. At the same time, European policies have encouraged postgraduate education to address this growing need for markets to re- and upskill their human resources (European Commission, 2018).

Considering this background, we attended to the higher education literature and working students' studies, looking for facilitators of the academic adaptation process. Overall, we might conclude that one's social support in studies and career self-management skills are cornerstones in this process (e.g., Byl, 2019; Chu et al., 2021; Creed et al., 2022; Gazo and Romero-Rodriguez, 2019). As a result, we draw on two of the most well-established career theories - the Career Construction Theory (CCT, Savickas, 2005, 2021), and the Social Cognitive Career Theory (SCCT, Lent, 2005, 2021), as they consider both contextual and personal dimensions to explain adaptation processes in different contexts and across the life course.

### **Career Construction Theory**

CCT defines career adaptation as an attempt to bring one's self-concept and outer opportunities into harmony (Savickas and Porfeli 2012). Individuals need to face three environmental challenges: vocational development tasks (i.e., social expectation about age-graded normative transitions), occupational transitions (i.e., un/wanted and un/expected transitions from one job to another), and work trauma (i.e., unwanted and unpredicted challenges as occupational injuries or contract violations). The adaptation to these environmental challenges, mirrored in results of career satisfaction, development, and success, depends on one's willingness to change (i.e., adaptivity), self-regulatory resources (i.e., adaptability), and performed adaptative behaviors (i.e., adapting, Savickas, 2021; Savickas and Porfeli, 2012).

Evidence regarding the sequence ranging across adaptivity, adaptability, adapting, and adaptation, as well as, adaptability and adapting mediator role, is well reported in the literature, including among university students (e.g., Hirschi et al., 2015; Rudolph et al., 2017; Savickas et al., 2018; Soares et al., 2021, 2022; Yıldız-Akyol and Öztemel, 2021). For example, Yıldız-Akyol and Öztemel (2021), in a sample of Turkish university students, found significant and positive relations between students' adaptivity (i.e., grade point average), adaptability (i.e., concern, control, curiosity, confidence), adapting (i.e., crystallizing, exploring, deciding, preparing), and adaptation (i.e., academic satisfaction). Moreover, adaptability and adapting played a mediation role in the adaptivity-adaptation relationship. In the Portuguese context of university students, similar paths were found. Soares et al. (2021) found a direct and indirect positive relation between adaptability (i.e., concern, control, curiosity, confidence) and adaptation (i.e., perceived employability). The indirect relationship was mediated by adapting mirrored on career identity, exploration, self-efficacy, career decision, and locus of control.

### **Social Cognitive Career Theory**

Another perspective assuming humans' capacity to influence their career development and surroundings is the Social Cognitive Career Theory (SCCT) (Lent, 2005, 2021). This theory emphasizes the interplay among three cognitive-person variables (i.e., self-efficacy beliefs, outcome expectations, and personal goals) that partly influence people's behaviors. Self-efficacy refers to a dynamic set of self-beliefs regarding one's capabilities to perform a task. Outcome expectations refer to the imagined consequences of performing a given behavior (i.e., what will happen if I do this?). Personal goals refer to one's determination to engage in a particular activity. These three cognitive-person variables operate together with another person (e.g., personality) and environmental (e.g., social support) variables to explain one's career development (Lent, 2021). Drawing on this rationale, Lent and collaborators began by formulating four interconnected models, where these personal and environmental variables explained individuals' career choices and performances (Lent et al., 1994) and under what conditions people are satisfied (Lent and Brown, 2008). However, considering the volatility of the 21st century, that requires people to be prepared to deal with (un)expected career changes, a new model was proposed – the SCCT Career Self-Management Model (SCCT CSM, Lent and Brown, 2013). This model focus on analyzing how people negotiate occupational transitions and solve career developmental tasks and setbacks to adapt.

Evidence regarding SCCT validity is well reported in the literature, including with university students (e.g., for a revision see Brown and Lent, 2019; Lent and Brown, 2019). For example, studies on the SCCT CSM often indicate positive and significant relationships between the three cognitive-person

variables (i.e., self-efficacy beliefs, outcome expectations, and goals), as well as relations from social support and these three cognitive-person variables to adaptative behaviors (e.g., career exploration, networking, planning). Regarding the Portuguese context of university students, studies on SCCT satisfaction theory indicate positive and significant relationships between social support to self-efficacy and academic satisfaction. Self-efficacy predicts one's goals and academic satisfaction, and positive affect predicts self-efficacy, social support, and satisfaction with life and course (Lent et al., 2012, 2018). Notwithstanding this empirical evidence, Brown and Lent (2019) emphasize that the strength between pathways varies by domain. For example, when analyzing studies with Portuguese samples, the pathway that produced statistically larger coefficients in the academic domain was social support (Taveira, 2019). Meanwhile, the variable of outcome expectation presents inconsistencies in predicting satisfaction outcomes (e.g., Lent et al., 2018; Sheu et al., 2016).

### **Model of Career Adaptation in Higher Education**

Both CCT and SCCT highlight the role of context and individuals's resources in explaining career development and consequent results of success, satisfaction, and development (Lent, 2021; Rudolph et al., 2017; Savickas, 2021). Even the latest update of the SCCT delves deeper into career self-management behaviors, approaching the construct of adapting in CCT (Lent and Brown, 2013). This proximity between models and strong validation are at the base of our study. Especially, because the higher education literature also highlights the role of context, particularly social support in studies, and individuals' career competencies as crucial for the higher education adaptation process (e.g., Byl, 2019; Chu et al., 2021; Creed et al., 2022; Gazo and Romero-Rodriguez, 2019).

As a result, we argue for a model (figure 1) that captures the contextual dimension of SCCT (i.e., social support) and the career adapt-abilities dimensions of CCT (i.e., adaptivity, adaptability, adapting) to explain adaptation results in higher education. Although the CCT considers the relevance of context, namely for developing one's career adaptability, it does not specify this dimension, and the SCCT approach does not detail the career self-regulatory attitudes in as much detail as the CCT. Therefore, we decide to complement the CCT approach with SCCT elements. Concerning the adaptation results, our model combines objective results of students' achievements with subjective results of students' career certainty, academic well-being, and life satisfaction. According to the higher education literature, pairing objective with subjective indicators is advantageous for a broader understanding of the adaptation process (e.g., Araújo, 2017; York et al., 2015). Moreover, the academic well-being indicator will include the cognitive and affective dimensions of subjective well-being (Diener et al., 2018), as considered in the



domain-specific outcomes of the satisfaction SCCT (Lent and Brown, 2008). For the adaptivity dimension, we considered the protean career orientation as an indicator. This orientation mirrors one's flexibility to change and the ability to autonomously manage a career (e.g., Hall et al., 2018), which is key to dealing with 21st-century unpredictable contexts (e.g., work, study) (e.g., Hirschi and Koen, 2021). Moreover, empirical evidence indicates significant relations between this protean orientation and one's personality traits of conscientiousness, openness to experience, and exploration (e.g., Wiernik and Kostal, 2019), usually described as indicators of adaptivity in CCT (e.g., Perera and McIlveen, 2017; Rudolph et al., 2017), and personality traits in SCCT (e.g., Brown and Lent, 2019).

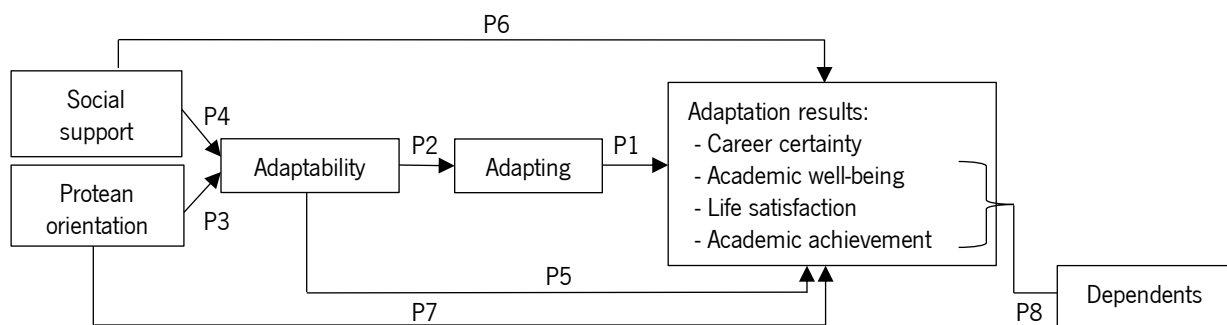
The relationships between these individual and context predictors to higher education adaptation results are documented in empirical studies, which reinforces our proposal. For example, significant and positive relations were found from social support and protean orientation to adaptability (e.g., Ataç et al., 2018; Chui et al., 2020; Ghosh and Fouad, 2017), adapting (e.g., Chu et al., 2021; Kaur and Kaushik, 2020), life satisfaction (e.g., Baruch, 2014; Parola and Marcionetti, 2021), and career certainty (e.g., Hirschi et al., 2017; Ireland and Lent, 2018). Social support also predicts results of academic achievement (e.g., Lopes and Carreira, 2018; Tinajero et al., 2020), and well-being (e.g., Garriott et al., 2015; Lent et al., 2018; Sheu et al., 2016). Meanwhile, the relation between protean orientation to these academic outcomes is scarce. Nevertheless, results in the labor setting indicate positive paths from this orientation to job satisfaction and engagement (e.g., Herrmann et al., 2015; Hirschi et al., 2017). Regarding adaptability, studies indicate positive relations with adapting (e.g., Merino-Tejedor et al., 2016; Yıldız-Akyol and Öztemel, 2021). Also, both adaptability and adapting predict life satisfaction (e.g., Barroso, 2016; Magnano et al., 2021; Takao and Ishiyama, 2021), career certainty (e.g., Levin and Lipshits-Braziler, 2021; Park et al., 2021), and academic well-being results (e.g., Yıldız-Akyol and Öztemel, 2021; Wilkins-Yel et al., 2018). Adaptability also predicts achievement (Öncel, 2014), and adapting relates to study engagement (e.g., Šverko and Babarović, 2019), which is related to academic achievements (e.g., Elphinstone et al., 2019). The (in)existence of dependents was included in our model as a covariate because the higher education literature indicates that this variable may compete for time in roles management (i.e., study/work-family), worsening one's satisfaction with life, academic performance, and well-being (e.g., Burston, 2017; Creed et al., 2015).

### **Study aims**

We aim to examine the proposed model among Portuguese working and non-working university students (figure 1), two groups with different occupations to manage. According to the model, students

are more likely to be adapted to the extent that they (P1) engage in adapting behaviors, which are motivated by (P2) adaptability, acquired through (P3) protean orientation and (P4) perceived social support. Also, better adaptation results are enabled by (P5) adaptability, (P6) perceived support, and (P7) protean orientation. The presence of dependents may negatively influence one's (P8) life satisfaction, academic achievement, and well-being.

**Figure 1**  
*Integrative model of career adaptation in higher education*



Complementing these direct paths, the model specifies indirect paths. For example, favorable levels of perceived support and protean orientation are indirectly linked to adaptation results through adaptability and adapting. Likewise, adaptability will predict adaptation through adapting.

Adopting this systemic view that weighs cornerstone variables to career adaptation in higher education, in general, and for working student adaptation, in particular, we expect to verify models' invariance across groups. Such evidence will be crucial to refine the career counseling practices among these groups. Moreover, it will be advantageous to have a rationale, that is both generic and inclusive, considering the scarce human and time resources observed in some higher education institutions.

## Method

### Participants and Procedure

A non-probabilistic convenience sample of 523 Portuguese university students, between 18 and 59 years old ( $M_{age} = 23.66$ ,  $SD = 7.54$ ), was collected. The majority being women ( $n = 414$ , 79.2%).

Non-working student group consists of 335 (64.1%) participants aged 18 to 59 ( $M_{age} = 20.64$ ,  $SD = 3.71$ ), 282 (84.2%) women and 53 (15.8%) men. The majority were attending Bachelor programs ( $n = 255$ , 76.1%), followed by Master ( $n = 52$ , 15.5%), Integrated Master ( $n = 26$ , 7.8%), and Doctoral

programs ( $n = 2$ , 0.6%). Also, more than half were in the first ( $n = 107$ , 32.9%) and second year ( $n = 79$ , 23.6%). Three hundred and fifteen (94%) attended university educational institutions and 20 (6%) polytechnic institutions. Participants' fields of study included: social sciences, journalism and information ( $n = 211$ , 63%), natural sciences, mathematics and statistics ( $n = 34$ , 10.1%), health and welfare ( $n = 24$ , 7.2%), engineering, manufacturing and construction ( $n = 23$ , 6.9%), business, administration and law ( $n = 12$ , 3.6%), arts and humanities ( $n = 11$ , 3.3%), education ( $n = 8$ , 2.4%), services ( $n = 5$ , 1.5%), information and communication technologies ( $n = 5$ , 1.5%), and generic programs ( $n = 2$ , 0.6%) (UNESCO 2015). Student's grade point average ranged mostly between 16-17 ( $n = 124$ , 37%) and 14-15 ( $n = 122$ , 36.4%). Moreover, 328 (97.9%) reported having no dependents, three (0.9%) had two dependents, two (0.6%) had one dependent, and another two (0.6%) had three or more dependents.

Working student group consists of 188 (35.9%) participants aged 18 to 57 ( $M_{age} = 29.05$ ,  $SD = 9.41$ ), 132 (70.2%) women and 56 (29.8%) men. The majority were attending Bachelor programs ( $n = 94$ , 50%), followed by Master ( $n = 75$ , 39.9%), Integrated Master ( $n = 10$ , 5.3%), and Doctoral programs ( $n = 9$ , 4.8%). Also, more than half were in the first ( $n = 66$ , 35.1%) and second year ( $n = 64$ , 34%). One hundred eighty (95.7%) attended university educational institutions and eight (4.3%) polytechnic institutions. Participants' fields of study included: social sciences, journalism and information ( $n = 74$ , 39.4%), business, administration and law ( $n = 26$ , 13.8%), education ( $n = 23$ , 12.2%), engineering, manufacturing and construction ( $n = 16$ , 8.5%), arts and humanities ( $n = 14$ , 7.4%), natural sciences, mathematics and statistics ( $n = 11$ , 5.9%), health and welfare ( $n = 11$ , 5.9%), information and communication technologies ( $n = 7$ , 3.7%), services ( $n = 5$ , 2.7%), and agriculture, forestry, fisheries and veterinary ( $n = 1$ , 0.5%) (UNESCO, 2015). Student's grade point average ranged mostly between 14-15 ( $n = 70$ , 37.2%) and 16-17 ( $n = 53$ , 28.2%). Moreover, 138 (73.4%) reported having no dependents, 20 (10.6%) had one dependent, another 20 (10.6%) had two, and 10 (5.3%) had three or more dependents. Among the 188 participants, 78 (41.5%) worked 35h per week, 71 (37.8%) one to 20h, 30 (20.7%) 21h to 34h, and only 86 (45.7%) had a legal status of working student. Participants were from diverse occupational backgrounds (e.g., lawyers, social workers, fireman).

The numerical difference between groups mirrors a rough reality of the Portuguese higher educational institutions (Hauschildt et al., 2021).

This study was approved by the Ethical Committee for Research in Social and Human Science (CEICSH 093/2021). The protocol was elaborated on SPSS Data Collection. It included the study aim and a guarantee of data confidentiality. Individuals who voluntarily agreed to participate in the study were then asked about demographic, academic, and occupational data, followed by measures of social

support, career orientation, attitudes and behaviors, career certainty, academic well-being, and life satisfaction. Protocol completion took approximately 20 minutes. Individuals were recruited by email between November 2021 and February 2022. We emailed several Portuguese students' associations, from north to south of Portugal, asking them to share and fill in the protocol online. Later, these associations were emailed again and a free webinar on time management was offered. Webinar started with a presentation of research objectives and an invitation to fill in the protocol. In the end, individuals received a certificate of webinar participation.

## Measures

Protocol included an initial form, collecting demographic (e.g., age, gender), academic (e.g., grade point average), and occupational data (e.g., weekly work hours).

Social support was assessed with a 9-item measure (e.g., "Get helpful assistance from my advisor"). Participants indicated how much they agreed with each statement, from 1 (*strongly disagree*) to 5 (*strongly agree*). Higher scores represent higher levels of perceived social support in studies. The Portuguese version showed good reliability indices ( $\alpha = .81$ , Lent et al., 2009), as well as we found for the present sample of university students ( $\alpha = .81$ ).

Protean career orientation was assessed with a 6-item measure (e.g., I am in charge of my own career). Participants indicated how much they agreed with each statement, from 1 (*strongly disagree*) to 5 (*strongly agree*). Higher scores represent higher levels of readiness to manage one's career. The Portuguese version showed good reliability indices ( $\alpha = .73$ , Soares et al., 2021), as well as we found for the present sample of university students ( $\alpha = .77$ ).

Adaptability was measured with the Portuguese version of the Career Adapt-Abilities Scale-Short Form (CAAS-SF, Soares et al., 2022), which included 12 items evenly distributed by four factors: concern (e.g., "Preparing for the future"), control (e.g., "Counting on myself"), curiosity (e.g., "Looking for opportunities to grow as a person"), and confidence (e.g., "Learning new skills"). Participants indicated how much they agreed with each statement, from 1 (*strongly disagree*) to 5 (*strongly agree*). Higher scores represent higher levels of adaptability. The Portuguese version showed good reliability indices ( $.70 < \alpha < .87$ , Soares et al., 2022), as well as we found for the present sample of university students ( $.75 < \alpha < .89$ ).

Adapting was measured with the Portuguese version of the Student Career Construction Inventory (SCCI, Soares et al., 2022), which included 18 items distributed by four factors: crystallizing (6 items, "Recognizing my talents and abilities"), exploring (3 items, "Reading about occupations"), deciding (5

items, “Finding a line of work that suits me”), and preparing (3 items, “Qualifying for the job that I like best”). Participants indicated how much they agreed with each statement, from 1 (*strongly disagree*) to 5 (*strongly agree*). Higher scores represent higher levels of adapting. The Portuguese version showed good reliability indices ( $.71 < \alpha < .91$ , Soares et al., 2022), as well as we found for the present sample of university students ( $.79 < \alpha < .92$ ).

Career certainty was measured with the Portuguese version of Vocational Identity Scale (VIS, Santos, 2007), which included four items (e.g., “I have already chosen a certain career option that I don't intend to move away from”). Participants indicated how much they agreed with each statement, from 1 (*strongly disagree*) to 5 (*strongly agree*). Higher scores represent higher career certainty. The Portuguese version showed good reliability indices ( $\alpha = .85$ , Santos, 2007), as well as we found for the present sample of university students ( $\alpha = .87$ ).

Global life satisfaction was measured with the Portuguese version of the Satisfaction with Life Scale (SWLS, Simões, 1992), which includes five items (e.g., “I am satisfied with my life”). Participants indicated how much they agreed with each statement, from 1 (*strongly disagree*) to 5 (*strongly agree*). Higher scores represent higher levels of life satisfaction. The Portuguese version showed good reliability indices ( $\alpha = .77$ , Simões, 1992), as well as we found for the present sample of university students ( $\alpha = .86$ ).

Academic well-being was assessed using a cognitive measure of academic satisfaction (7 items, e.g., “In general, I am satisfied with my academic life”, Lent et al., 2009), and an affective measure of emotional balance (14 items, e.g., “I feel sad or depressed”, Almeida, 1998). Participants indicated how much they agreed with each statement, from 1 (*strongly disagree*) to 5 (*strongly agree*). Higher scores, in the first measure, represent higher levels of academic satisfaction. The same is true for the second measure after inverting the items. Higher scores indicate higher levels of emotional balance. Good reliability indices were found for the original Portuguese versions ( $\alpha = 0.89$ , Lent et al., 2009;  $\alpha = 0.88$ , Almeida, 1998) and the present sample ( $\alpha = 0.89$  and  $\alpha = 0.93$ , respectively).

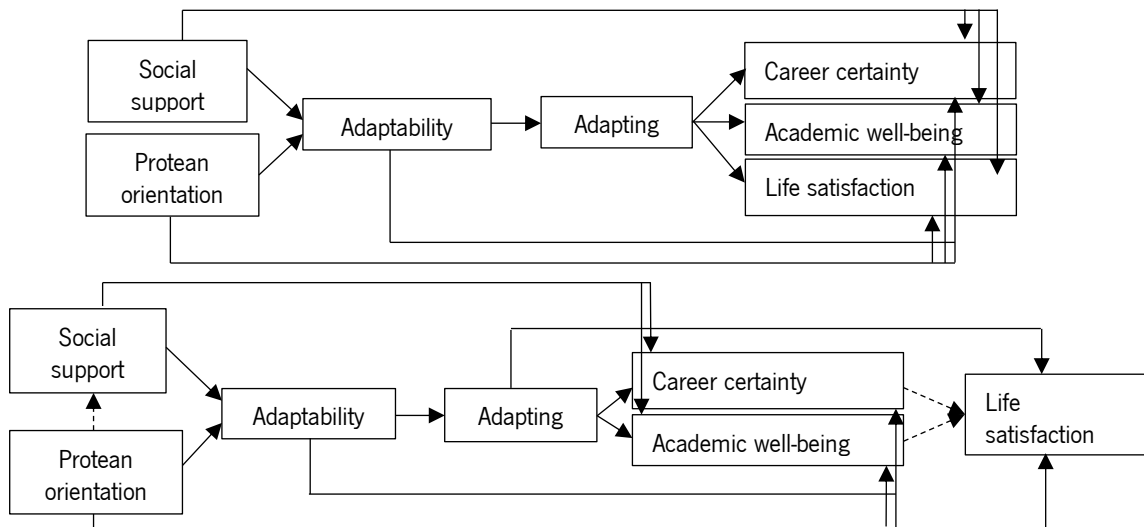
## **Data Analysis**

Preliminary database analyses were performed with the Statistical Package for the Social Sciences (IBM SPSS), version 27.0 for Mac. First, we checked for missing responses. Seven (1.3%) participants did not respond to the academic achievement question. Therefore, Little's (1988) MCAR test was run, and a significant value was found ( $\chi^2 = 0$ ,  $p < .001$ ), indicating that the pattern of missingness was not at random. These participants were eliminated leaving the final sample of 523 students for

analysis (Little and Rubin 2002). After, structural equation modeling (SEM) was conducted using the Analysis of Moment Structures (AMOS) version 27.0 for Windows. As evidence of multivariate non-normality of sampling distribution, found through Mardia's coefficient, the Maximum Likelihood estimation method with bootstrapping was used (Gilson et al. 2013). Using the Mahalanobis' Distance Analyses, four outliers were identified in the non-working student group. To control for possible bias, analyses were run with and without these extreme observations (Pinto et al., 2013). As there were differences in the findings, results without outliers were preferred. Regarding the linearity assumption, violations were found for academic achievement and dependents covariable. As recommended by Levers-Landis et al. (2011) these variables were removed from the structural model test.

Having SEM assumptions verified two steps were taken. First, confirmatory factor analyses (CFA) were conducted to test measurement models fit, in tandem with multigroup CFA to test measures' metric invariance across groups. Measures' good fit and invariance are prerequisites for the next step of the structural model test (e.g., Jiang et al., 2017). Having these conditions verified, path analyses (PA) were carried out to test the career adaptation model fit. Two structural models were tested in alignment with the literature review (e.g., Lent and Brown, 2008; Savickas, 2021) (figure 2). Model 1 relied on the hypothesized paths, withdrawing those variables for which the linearity assumption was not met (i.e., dependents, academic achievement). Model 2, an alternative model inspired in the satisfaction SCCT (Lent and Brown, 2008) introduced some changes. It separates domain-specific (i.e., career certainty, academic well-being) from general (i.e., life satisfaction) adaptation results, with the former predicting the latter. Also, a relation from protean orientation to support is introduced, and the relations from support and adaptability to life satisfaction are eliminated.

**Figure 2**  
Structural models of career adaptation in higher education



*Note.* Model 1 is represented at the top and Model 2 at the bottom. Dashed lines in Model 2 represent the additional paths considered in comparison to Model 1.

To evaluate measurement and structural models fit, the Comparative Fit Index (CFI), the Root Mean Square Error of Approximation (RMSEA) with 90% confidence interval (CI), and the Standardized Root Mean Square Residual (SRMR) were considered. Values of CFI above .90, SRMR below .10, and RMSEA between .05 and .08 indicate an acceptable model fit. Values of CFI above .95, SRMR below .05, and RMSEA below .05 indicate a good model fit (Cangur and Ercan 2015; Hu and Bentler 1999). Given the CFI and SRMR lower sensitivity to model complexity (i.e., increasing the number of variables yields a higher RMSEA value), these indicators were privileged in the decision whenever incongruencies emerged. Invariance was evaluated through  $\Delta$  CFI index, which represents the difference ( $\Delta$ ) from the unconstrained to the metric parameters in multigroup CFA and structural weight parameters in multigroup PA. Metric and structural weight invariance were considered when values of  $\Delta$  CFI lower than .01 were observed (Chen 2007). Structural models' indirect paths were accessed by running 5000 bias-corrected bootstrap samples at a 95% confidence interval (Lent et al., 2018).

For academic well-being, preliminary analyses were performed to ascertain the feasibility of joining the cognitive and affective measures. The sample was randomly divided into two. The exploratory factor analysis was run in one-half of the sample (N = 272) to determine the number of factors and their items. Kaiser-Meyer-Olkin index (KMO >.70) and Bartlett's sphericity test ( $p < .05$ ) indicated the sample's adequacy for further analyses (Field, 2009). Considering the lack of previous studies joining these measures, the principal axis-factoring method was used (Field 2009). The selection criteria for the

factorial solution included the consistency with measures' theoretical framework; Cattell's test; Kaiser criteria for factor retention (i.e., eigenvalues  $\geq 1$ ); and retention of factor loadings  $\geq .45$  (Field, 2009; Tabachnick and Fidell, 2013). Two factors explaining 54% of the variance were found: factor one included the 14 items of the emotional balance measure, and factor two included the seven items of the academic satisfaction measure. After, CFA was run in the other half of the sample (N = 251), supporting the two-factor hierarchical structure (CFI = .909, RMSEA = .076, SRMR = .069). Nevertheless, along with the other measures, CFA and metric invariance were applied to the total sample, as a prerequisite for testing the structural model (e.g., Jiang et al., 2017).

## Results

### Descriptive analysis and relationship between variables

Table 1 presents descriptive statistics and Pearson's correlation matrix for the full sample and groups.

**Table 1**

*Descriptive statistics and correlations among variable for the full sample and groups*

	1	2	3	4	5	6	7	Mean	SD		
Full sample											
1. Ss	-							3.71	.62		
2. Po	.31***	-						3.82	.60		
3. Adapt	.33***	.48***	-					4.26	.50		
4. Adapting	.30***	.35***	.49***	-				3.76	.73		
5. Certainty	.19***	.29***	.36***	.46***	-			3.96	.90		
6. Acad WB	.43***	.29***	.28***	.26***	.36***	-		3.30	.69		
7. Ls	.47***	.39***	.32***	.31***	.34***	.59***	-	3.61	.87		
Groups											
								NWS	WS	NWS	WS
1. Ss	-	.22**	.23**	.21**	.09	.46***	.38***	3.76	3.62	.61	.64
2. Po	.39***	-	.44***	.35***	.28***	.25**	.37***	3.81	3.84	.56	.66
3. Adapt	.40***	.52***	-	.45***	.38***	.21**	.21**	4.21	4.32	.52	.47
4. Adapting	.37***	.35***	.51***	-	.47***	.26***	.41***	3.70	3.88	.75	.69
5. Certainty	.27***	.30***	.34***	.45***	-	.34***	.37***	3.88	4.11	.90	.89
6. Acad WB	.43***	.32***	.31***	.25***	.36***	-	.57***	3.25	3.38	.69	.67
7. Ls	.53***	.41***	.38***	.25***	.33***	.60***	-	3.60	3.62	.87	.87

*Note.* Coefficients below diagonal are for non-working student group (N = 335) and above for working student (N = 188). Full sample (N = 523). NWS = non-working student group; WS = working student group; Ss = social support; Po = protean orientation; Adapt = adaptability; Acad WB = academic well-being; Ls = life satisfaction

\*\*\* $p < .001$ ; \*\* $p < .01$



On average, results indicate a reasonable level of environmental, career, and well-being resources across groups. Pearson analyses indicate positive and statistically significant correlations, except between support and certainty in the working student group. Nevertheless, this exception is insufficient to violate the SEM linearity assumption (Levers-Landis et al., 2011). Correlations' magnitude ranged mainly from moderate ( $.30 \leq r \leq .50$ ) to large ( $r \geq .50$ ) (Cohen 1988). Large correlations are noticed, namely between life satisfaction to social support and academic well-being ( $.53 \leq r \leq .60$ ). Weak correlations ( $r < .30$ ) are more apparent in the working student group, namely between social support to protean orientation, adaptability, and adaptation. Also, weak correlations are found between adaptability to academic well-being and life satisfaction.

### **Measurement models**

CFA results for the total sample indicated adequate measurement model fit to data for the four-factor hierarchical scales of adaptability [CFI = .970, SRMR = .032, RMSEA = .053 (90% CI, .042-.065)] and adapting [CFI = .953, SRMR = .052, RMSEA = .065 (90% CI, .058-.073)], as well as, for the one-factor order scale of certainty [CFI = .977, SRMR = .025, RMSEA = .173 (90% CI, .124-.228)] and life satisfaction [CFI = .998, SRMR = .015, RMSEA = .031 (90% CI, .000-.073)]. The remaining scales did not present adequate fit indices. Inspection of the modification indices indicated improvements when allowing residuals from the same scale to correlate. Models were re-run and better indices were found for: one-factor order scales of social support [CFI = .916, SRMR = .066, RMSEA = .101 (90% CI, .086-.117)] and protean orientation [CFI = .982, SRMR = .029, RMSEA = .061 (90% CI, .033-.090)], and for the two-factor hierarchical academic well-being scale [CFI = .912, SRMR = .068, RMSEA = .077 (90% CI, .071-.083)]. The multigroup CFA indicated metric invariance across groups ( $\Delta$  CFI < .01), except for the protean orientation scale. Specifically, two-factor loadings varied. A partial invariance model where these parameters were freely estimated across groups was, therefore, tested and supported. Although partial invariance, this result was adequate to proceed with PA (e.g., Putnick and Bornstein, 2016). Each dimension of the structural model was represented by measurement models' second-order factors, calculated by the respective scale average sum of the items.

### **Structural models**

PA results for the total sample and groups indicated poor fit of model 1 and adequate fit of model 2 (table 2). Therefore, only model 2 was considered for multigroup PA.

**Table 2**  
*Structural models fit (sample without outliers)*

Structural model	SRMR	RMSEA (90% CI)	CFI
Full sample (N = 519)			
Model 1	.191	.305 (.286-.325)	.343
Model 2	.065	.168 (.136-.202)	.927
Non-working student group (N = 331)			
Model 1	.149	.283 (.246-.321)	.776
Model 2	.068	.190 (.150-.233)	.916
Working-student group (N = 188)			
Model 1	.191	.446 (.402-.493)	.184
Model 2	.068	.165 (.112-.224)	.920

Results indicate regression weights invariance across groups ( $\Delta$  CFI unconstrained – constrained models = .917 - .910 = .007 < .010, Chen, 2007). In other words, the relations among constructs are reasonably similar across working and non-working students. For the non-working student group, the model explained 16.1% of social support variance, 32.4% of adaptability variance, 30.7% of adapting variance, 21.6% of academic well-being variance, 25.8% of certainty variance, and 39.8% of life satisfaction variance. Among working students, the model explained 5% of social support variance, 21.2% of adaptability variance, 20.1% of adapting variance, 23.4 % of academic well-being variance, 26.1% of certainty variance, and 40% of life satisfaction variance.

Overall, the standardized regression weights were statistically significant (table 3).

**Table 3***Direct and indirect paths between variables of structural model 2 (sample without outliers)*

Paths	NWS group (N = 331)		WS group (N = 188)	
	$\beta$	<i>p</i> -value	$\beta$	<i>p</i> -value
Direct paths				
Po→Ss	.401	.007	.224	.020
Po→Adapt	.432	.005	.407	.005
Po→Certainty	.147	.007	.079	.296
Po→Acad WB	.138	.016	.109	.180
Po→Ls	.230	.004	.171	.013
Ss→Adapt	.237	.004	.143	.026
Ss→Certainty	-.024	.632	-.052	.427
Ss→Acad WB	.314	.004	.406	.004
Adapt→Adapting	.554	.006	.448	.005
Adapt→Certainty	.088	.196	.198	.021
Adapt→Acad WB	.089	.260	.012	.808
Adapting→Certainty	.390	.005	.366	.005
Adapting→Acad WB	.055	.378	.128	.109
Adapting→Ls	.044	.351	.201	.011
Certainty→Ls	.041	.483	.075	.287
Acad WB→Ls	.489	.003	.459	.007
Indirect paths				
Adapt→Adapting→Certainty	.216	.006	.164	.096
Adapt→Adapting→Acad WB	.031	.372	.057	.005
Adapt→Adapting→Certainty/Acad WB→LS	.096	.053	.149	.005
Ss→Adapt→Adapting→Certainty	.072	.001	.052	.019
Ss→Adapt→Adapting→Acad WB	.028	.074	.010	.158
Ss→Adapt→Adapting→Certainty/Acad WB→LS	.175	.004	.204	.003
Po→Adapt→Adapting→Certainty	.151	.005	.147	.003
Po→Adapt→Adapting→Acad WB	.189	.004	.121	.018
Po→Adapt→Adapting→Certainty/Acad WB→LS	.185	.005	.162	.008

*Note.* NWS group = non-working student group; WS group = working student group; Ss = social support; Po = protean orientation; Adapt = adaptability; Acad WB = academic well-being; Ls = life satisfaction

Nevertheless, some aspects are analyzed. For the non-working student group, the relationship between support and certainty only occurs through adaptability and adapting as mediators. Meanwhile, the relationship between this predictor and academic well-being occurs through a direct path. Adaptability relates to certainty through adapting. However, no significant paths were found between adaptability and academic well-being. Also, no significant direct paths were found between adapting to academic well-being and life satisfaction, nor from certainty to life satisfaction. For the working student group, the same relational pattern from social support to domain-specific outcomes was found. Meanwhile, adaptability

relates to academic well-being when mediated by adapting. As for the latter, when compared to the non-worker group, only the direct path to academic well-being was not significant. Among working students, protean orientation also has no direct path to domain-specific outcomes but presents an indirect path through adaptability and adapting.

## **Discussion**

Our study adds to the career development literature by proposing and testing a model of career adaptation in higher education inspired by CCT and SCCT. Specifically, we focus on a sample of Portuguese working and non-working students, two groups with unique career self-management needs (e.g., Chiang et al., 2020; Tetteh and Attiogbe, 2019). Although commonalities between these career theories may be found, for example, in CCT adapting and SCCT actions constructs (Lent and Brown, 2013), the influence of contextual factors, or the importance of one's agency towards a career (Lent, 2021; Savickas, 2021), this is the first study combining both approaches to explain the career adaptation process in higher education. This new perspective on adaptation to students' careers, in general, and to the experience of working students, in particular, is relevant considering the increase of the latter group in educational institutions (Hauschildt et al., 2021). Few studies have been found so far that focus on understanding and testing which variables facilitate a better adaptation, particularly from a holistic perspective, combining personal and contextual factors. The studies on working students tend to focus on the perspective of conflict and/or facilitation between roles rather than on the resources we may develop or provide them to deal with that multitude of roles (e.g., Creed, Hood, et al., 2022; Creed, French et al., 2015). In response, we sought to present an inclusive perspective targeting both traditional and non-traditional students, namely working students.

Results indicate structural model good fit after performing some modifications, which seems to support the positioning and relationship between variables as proposed by the satisfaction SCCT (Lent and Brown, 2008). First, the relevance of differentiating domain-specific (i.e., certainty, academic well-being) from general (i.e., life satisfaction) adaptation outcomes, with the former predicting the latter. Consistent with our results, previous studies demonstrate positive relations between students' academic well-being and overall life satisfaction (e.g., Garriott et al., 2015; Lent et al., 2018). However, the path from certainty to life satisfaction was not significant in our sample. Perhaps this result indicates that career certainty precedes academic well-being. In other words, students with a clear image of the desired career path may present greater identification with their chosen major, perceiving it as more enjoyable and, as a result, evaluate life more positively (Araújo, 2017).

Second, the imposition of a direct path from social support and adaptability to domain-specific outcomes, excluding the direct path from these predictors to life satisfaction. Studies focused on students' perceived social support concerning their academic progress, indicate that the relations from this predictor to overall life satisfaction occurs through mediators as adapting or domain-specific outcome of academic satisfaction (e.g., Lent et al., 2018). The results found in the present study follow the same direction. For both groups, an indirect relation between social support to life satisfaction, through adaptability, adapting, certainty, and academic well-being was found. Parola and Marcionetti (2021) found a direct relationship between support and life satisfaction, but the definition assigned to support was different. Social support was included from the standpoint of parental help in students' career choices. Likewise, the conceptualization chosen for this variable may account for the absence of a direct path from social support to career certainty. In our study, a direct path was only observed from social support to academic well-being, while an indirect path was observed to certainty. Regarding adaptability, among working students, we found a direct and significant path to career certainty and an indirect path to academic well-being and life satisfaction through adapting. In the other group, we only verified significant relations between adaptability and career certainty mediated by adapting. These results might be explained by adaptability multidimensionality. For example, Park et al. (2021) found that students career concern is the most discriminant variable for career decisional status. Likewise, Magnano et al. (2021) reported that only career concern predicted students satisfaction with life. Hence, accounting only the total value of adaptability may justify these variations.

Third, the addition of a relation between protean orientation and social support is supported. Protean orientation is conceived as a self-directed attitude towards one's career, inspired by values of freedom and growth (Hall et al., 2018). In other words, career management is under one's control rather than the organization. This definition may justify empirical studies reporting significant relationships between this career orientation and proactive personality traits (conscientiousness, extroversion, and openness to experience, Wiernik and Kostal, 2019), commonly assessed in SCCT as antecedents of perceived support. Thus, although no studies linking protean orientation with social support were found, it is possible to compare our findings with previous evidence indicating the predictive role of personality traits in perceived social support (e.g., Lent et al., 2018; Sheu et al., 2016). Regarding the relationship between protean orientation and models' outcome variables, significant results were found with adaptability and life satisfaction, in line with previous studies (e.g., Baruch, 2014; Chui et al., 2020). However, for working students, no direct path was found to domain-specific outcomes. This relationship

only occurs when mediated by adaptability and adapting. Protean career orientation, by itself, might be insufficient to explain domain-specific outcomes among this group.

Regarding the model's invariance, a reasonable similar pattern of relations is identified across groups. As hypothesized, university students are more likely to express career adaptation outcomes to the extent that they engage in adapting, which are motivated by adaptability, acquired through one's protean orientation and perceived social support. The exception across groups is the non-significant relationship between adapting and academic well-being. While the present study included well-being's cognitive and affective dimensions into a single total, previous studies only included the cognitive dimension (i.e., academic satisfaction). This conceptual difference may explain why no significant results were found in the present study, contrasting with previous research (e.g., Yıldız-Akyol and Öztemel, 2021). Moreover, adapting multidimensionally nature may also be affecting these results (Savickas et al. 2018). Likely, only a few dimensions (e.g., crystallizing) will affect one's academic well-being. In addition to the direct path from adapting to adaptation, other direct and/or indirect paths were found from predictors of perceived social support, protean orientation, and adaptability. Overall, these findings are consistent with theoretical postulations (e.g., Lent and Brown, 2008; Savickas, 2021) and empirical findings (e.g., Lent et al., 2018; Yıldız-Akyol and Öztemel, 2021), supporting model's validity as a tenable depiction of career adaptation in higher education.

### **Practical and theoretical implications**

Given consistent findings of protean orientation, social support, and adaptability effect on adapting and adaptation outcomes, future interventions should focus on helping university students develop these resources. For example, career counselors may encourage network extension, useful for sharing difficulties on the course, or participation in peer study groups. At the higher education level, access to professors' feedback, mentoring programs, or the provision of student organizations contacts will be relevant. For the protean career orientation, counselors may help students to formulate specific career goals, and actions aligned with those goals (Hall et al., 2018). According to Baruch (2014), students with high protean orientation tend to self-setting training needs and take initiative. This supports the idea of students' idiosyncrasies and, therefore, the need to adjust teaching and supervision strategies. In other words, students with lower levels of self-direction toward a career will likely need more support from their teachers because they are more reliant on external cues to progress (Hall, Yip, and Doiron 2018). Finally, career adaptability might be enhanced by promoting students' self-regulatory skills (Savickas and Porfeli 2012). Counselors might help students set time for study and anticipate distracting

stimuli (control) or, in the face of course dissatisfaction, guide a reflection on the course chosen (curiosity). For higher education institutions, we recommend including adaptability-friendly teaching methods as role-playing exercises that allow self-exploration in a professional role and the anticipation of future possibilities (concern).

At the theoretical level, our study supports the value of integrating individual and contextual predictors to explain students' adaptation to higher education. This systemic approach is advantageous as it considers the bidirectional and dynamic relationships between person-environment and how this can influence one's career narrative (Savickas 2021). As stated by Gazo and Romero-Rodriguez (2019, p.158) one cannot understand or respond to transition processes by ignoring contextual influences that may constitute barriers to one's actions. The inclusion of the protean career orientation allowed extending its study to contexts other than work. Specifically, our findings support its pivotal role in the career adaptation processes of university students, as it presented significant and positive relations with career certainty, academic well-being, and life satisfaction. The inclusion of academic well-being measures allowed the expansion of this theoretical field as well. Although theories such as SCCT (Lent, 2021) consider the cognitive and affective dimensions of this construct for domain-specific outcomes, there seems to be a tendency to only assess the cognitive dimension (e.g., Lent et al., 2018; Yıldız-Akyol and Öztemel, 2021). Thus, our results on the well-being measurement model good fit support this construct multidimensionality (Diener et al., 2018).

### **Limitations and directions for future research**

Despite the promising findings, some limitations need to be addressed for future research. First, the numerical asymmetry between groups is highlighted. Although the lower number of working students reflects the reality of Portuguese higher education institutions (Hauschildt et al., 2021), we acknowledge the impact this asymmetry may have on results (Tabachnick and Fidell 2013). Hence, we recommend fairer groups in future studies.

Second, the non-compliance of linearity assumption for dependents and academic achievement variables justified its exclusion from the final model assessed. Nevertheless, as pointed out by the literature these variables are relevant for the career adaptation process to higher education. Academic achievement is an objective measure of adaptation, that paired with subjective measures as academic well-being provides a broad understanding of the adaptation process (York et al., 2015). On the other hand, the presence of dependents may negatively affect time distribution between roles and, in turn, the

adaptation process (Burstson 2017). Therefore, we recommend the inclusion of these variables in future research protocols and, when SEM assumptions were met, its inclusion in the model test.

Third, the accessed structural models included the mean score per measure, for parsimony. Although preliminary CFA analyses support measures' hierarchical structure, we acknowledge the multidimensionality nature of adaptability (e.g., concern dimension) and adapting (e.g., preparing dimension). When considered alone, these dimensions may relate differently to the other measures in the model. As noted above, Park et al. (2021) found that concern is the most discriminant variable in career decisional status. Therefore, future studies computing the mean score per dimension are needed.

Fourth, given the insufficient number of participants they were not separated by age. Literature states that young students in the exploration phase tend to struggle with identity issues which may affect career-related decisions (e.g., course selection), whereas mature students in the establishment or maintenance phase often present a clear idea of the desired career and might be studying to respond to work requirement (Lent and Brown, 2013; Savickas, 2005). Some mature students may even be returning to academia after a period in the labor market for upskilling. Considering the variety of experiences lived by these groups, different levels of career resources might be expected, influencing the adaptation process (Savickas and Porfeli, 2012). Therefore, we suggest future studies focused on comparing model fit between young and mature working and non-working students.

In sum, our findings suggest that after modifications the model proposed is useful in explaining Portuguese university students' career adaptation to higher education. Specifically, among those who are entirely dedicated to studying, and those who combine study and work. We may, therefore, state that our study provides useful preliminary data to advance both career theory and practice in this regard. Nevertheless, additional studies are needed to explore the range and limits of the model's validity across time, cultures and other student populations (e.g., high school students).



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## **DISCUSSÃO GERAL**

A presente dissertação sobre adaptação à carreira em estudantes e estudantes-trabalhadores, partiu do objetivo geral de compreender os processos de adaptação à carreira de estudantes universitários. Em particular, estudantes exclusivamente dedicados ao estudo e estudantes que conciliavam, à data da recolha, o estudo com um emprego remunerado. Para tal, recorreu-se a dois referenciais de carreira contemporâneos, amplamente estudados no campo da Psicologia Vocacional, a teoria sociocognitiva de carreira (Lent, 2005, 2021) e a teoria de construção de carreira (Savickas, 2005, 2021), formulando-se um modelo explicativo de resultados de adaptação ao ensino superior. Em particular, resultados de processo, que na literatura se dividem em: resultados objetivos sobre o rendimento académico do estudante e resultados subjetivos sobre a certeza vocacional, bem-estar académico e satisfação geral com a vida (e.g., Araújo, 2017; York et al., 2015). Como seus preditores incluem-se fatores contextuais de suporte social percebido e fatores individuais de carreira, nomeadamente, a orientação proteana do estudante face à própria carreira, os recursos de adaptabilidade apresentados e os comportamentos adotados face à carreira (capítulo 3, estudo 4).

Antes de se conduzir este estudo, foi necessário introduzir uma etapa prévia de validação de medidas. Como resultado, delinearam-se quatro estudos empíricos, cada um com objetivos e metodologias específicas. No estudo 1 validou-se a Escala de Orientação Proteana de Carreira (Baruch, 2014) que integra um total de 7 itens num único fator, sendo por isso até à data, a escala mais reduzida para avaliar o construto (capítulo 3). Para o mesmo fim, em Portugal, apenas se encontrava validada por Marques (2017) a Escala de Atitudes de Carreira Proteana de Briscoe e colaboradores (2006). Uma escala bidimensional de 14 itens, e cuja literatura identificou algumas limitações (rever capítulo 3, estudo 1). Num segundo estudo validou-se a versão reduzida da Escala sobre Adaptabilidade de Carreira (Maggiori et al., 2017, capítulo 3, estudo 2), a qual integra 12 itens distribuídos equitativamente por quatro dimensões (i.e., preocupação, controlo, curiosidade e confiança). Pela revisão efetuada à literatura constatou-se que em Portugal apenas se encontrava validada junto de universitários a versão internacional de 24 itens (Monteiro & Almeida, 2015). E, por último, num terceiro estudo, validou-se a versão reduzida do Inventário de Construção de Carreira (capítulo 3, estudo 3), o qual integra 18 itens distribuídos por 4 dimensões (i.e., cristalização, decisão, preparação e exploração). Segundo o estudo conduzido mais recentemente acerca da medida (Savickas et al., 2018) parece haver benefícios na exclusão de sete itens, bem como, na junção de duas das cinco dimensões iniciais (i.e., cristalização, exploração, decisão, capacitação, transição). Especificamente, juntar a dimensão da capacitação com a dimensão da transição, o que deu origem à dimensão preparação. Isto porque, segundo os autores, os itens da capacitação e transição saturavam apenas num fator.

De forma geral, os estudos de validação de medida que compõe a primeira etapa da presente dissertação, permitiram, por um lado, enriquecer a literatura sobre avaliação psicológica, já que estas medidas não se encontravam ainda disponíveis no contexto português. Por outro lado, permitiram incluir no teste ao modelo teórico proposto (estudo 4), as recomendações mais recentes dos ajustes métricos apresentados na literatura (e.g., Savickas et al., 2018). E, ainda, incluir no protocolo de investigação medidas mais curtas, que gerassem menos sentimentos de fadiga e abandono aos participantes da investigação, comuns em protocolos longos.

De seguida, sumariam-se os principais resultados e reflexões por estudo empírico (capítulo 3), implicações práticas e teóricas, limitações e direções para futuros estudos, bem como, a conclusão geral da presente dissertação.

## **1. Principais resultados: revisão e reflexões**

Os dados obtidos no estudo de validação da Escala de Orientação Proteana de carreira (Baruch, 2014), para a população portuguesa de universitários (estudo 1, capítulo 3), suporta o seu uso em contexto prático e de pesquisa. Esta versão inclui seis itens, ao invés dos sete itens da versão original de Baruch (2014). A análise fatorial confirmatória inicialmente conduzida, indicou valores de ajustamento aquém do recomendado. Como tal, analisaram-se os valores de variância explicada por cada item no construto (Hooper et al., 2008), o que indicou uma elevada explicação devido ao erro ( $r^2 < .05$ ). Ainda assim, considerando que este foi o primeiro estudo de validação em Portugal e, os restantes estudos apresentados na literatura não detalhavam a análise psicométrica da medida além dos índices de consistência interna, como o alfa de Cronbach (e.g., Herrmann et al., 2015; Ngo & Hui, 2018), optou-se por explorar um pouco mais a medida, antes de se defender a tese dos seis itens. Primeiro, consideraram-se diferentes índices de consistência interna, incluindo a variância média extraída por ser menos sensível ao número de itens (Valentini & Damasio, 2016). Segundo, conduziram-se análises fatoriais exploratórias, num outro grupo de participantes, que apenas respondeu a esta medida do protocolo, observando-se pesos fatoriais inferiores a .45 para este item, o que segundo Tabachnick e Fidell (2013) justifica a exclusão. Assim, com base nestes aspetos, declarou-se a exclusão do item sete para a versão portuguesa da medida. Por um lado, este resultado pode indicar alguma particularidade do contexto português no que respeita ao entendimento do construto, ideia alinhada com a declaração de Hall e colaboradores (2018) sobre a orientação proteana se construir por interação com o meio. Por outro lado, considerando que os estudos existentes da medida noutros contextos apenas se focam na consistência interna da mesma, podemos igualmente concluir que esta diferença é ainda inconclusiva.

Não obstante, para o teste ao modelo teórico (estudo 4, capítulo 3), utilizou-se a versão com seis itens, por ter evidenciado melhores qualidades psicométricas na amostra portuguesa de universitários.

Os resultados do estudo de validação da Escala sobre Adaptabilidade de Carreira – versão reduzida (Maggiori et al., 2017), junto de universitários e trabalhadores portugueses (estudo 2, capítulo 3), mostrou igualmente evidência que apoia o uso da medida na investigação e prática clínica. Os esforços da unidade de investigação onde este estudo se insere, permitiram alargar a validação a uma amostra de trabalhadores, um grupo que partilha da ocupação laboral com os estudantes-trabalhadores. Estes últimos, de interesse para o estudo do teste ao modelo teórico sobre adaptação (estudo 4). Em particular, os resultados indicaram suporte à estrutura hierárquica do construto, dividido em quatro fatores (i.e., preocupação, controlo, curiosidade, confiança). Estes dados corroboram a teoria (Savickas, 2005, 2021) e estudos prévios de validação da medida longa (24 itens, e.g., Monteiro & Almeida, 2015; Savickas & Porfeli, 2012) e curta (12 itens, e.g., Işık et al., 2018; Yu et al., 2020). Outro dado que suporta esta ideia, foi a invariância métrica observada nos grupos de estudantes e trabalhadores. Estes resultados indicam que o peso dos itens nos respetivos fatores, e o peso destes no construto geral da adaptabilidade, é semelhante nos grupos. Assim, é possível avançar no estudo do teste ao modelo teórico (estudo 4), com confiança, calculando a variável “adaptabilidade” pela média do somatório das repostas aos itens. Os resultados obtidos no estudo 2 sobre a medida permitem, assim, afirmar que a versão reduzida de 12 itens, apresenta qualidades psicométricas adequadas de consistência e estrutura interna, o que torna esta versão uma boa alternativa à versão longa de 24 itens. Isto, seja no contexto da presente dissertação, ou estudos posteriores sobre o construto, em amostras com outros grupos etários, culturas.

De igual modo, também o estudo de validação sobre o Inventário de Construção de Carreira – versão reduzida (18 itens), junto de universitários (estudo 3, capítulo 3), suportou a estrutura sugerida por Savickas e colaboradores (2018), apoiando o uso da medida na investigação e prática clínica. Em particular, uma estrutura hierárquica do construto, dividido em quatro fatores (i.e., cristalização, exploração, decisão, preparação). Estes dados são corroborados pela teoria (Savickas et al., 2018) e estudos prévios de validação da medida (Öztemel & Akyol, 2020; Savickas et al., 2018; Yıldız-Akyol & Öztemel, 2021). Além disso, quando comparada com a versão longa de 25 itens, a versão reduzida apresenta índices de ajustamento ligeiramente melhores (estudo 3, capítulo 3). Estes dados indicam, por um lado, que a versão reduzida da medida é uma boa alternativa à versão longa. Por outro lado, assim como no estudo 2, estes dados permitem avançar no estudo do teste ao modelo teórico (estudo 4, capítulo 3), calculando a variável “comportamentos adaptativos” pela média do somatório das repostas aos itens. Os resultados obtidos sobre as boas qualidades psicométricas, de consistência e

estrutura interna do inventário, além de úteis à presente dissertação, servem igualmente de base para futuros estudos sobre o construto. Inclusive, para estudos de teste ao modelo de construção de carreira (Savickas, 2021), no qual o uso da Escala sobre Adaptabilidade de Carreira é comum, mas o recurso ao Inventário nem tanto. Por esse motivo, e seguindo a estrutura de Savickas e colaboradores (2018), incluiu-se no estudo 3, uma segunda parte de teste ao modelo de construção de carreira. Neste modelo, testaram-se e verificaram-se as relações diretas entre a adaptabilidade e os comportamentos adaptativos, entre os comportamentos adaptativos e a identidade vocacional, e ainda, entre a adaptabilidade e a identidade vocacional. Por um lado, estes dados corroboram a teoria (Savickas, 2021) e estudos empíricos prévios de teste ao modelo (e.g., Park et al., 2022; Yıldız-Akyol & Öztemel, 2021). Por outro lado, constituem-se como suporte aos caminhos postulados no modelo teórico proposto para análise (estudo 4, capítulo 3). Em particular, para os caminhos antecipados entre a adaptabilidade – comportamentos adaptativos, adaptabilidade – certeza vocacional, e comportamentos adaptativos – certeza vocacional.

Por último, o estudo empírico sobre o teste ao modelo teórico de adaptação ao ensino superior (estudo 4, capítulo 3), apresentou índices de ajustamento adequados e invariância entre grupos para o modelo 2. No que respeita aos índices de ajustamento, estes dados indicam que, de facto, tanto variáveis de cariz contextual (i.e., suporte social percebido), como variáveis de cariz pessoal e de carreira (i.e., orientação proteana, adaptabilidade, comportamentos adaptativos), influenciam resultados de adaptação à carreira de estudantes universitários, seja de forma direta e/ou indireta.

Já os resultados sobre a invariância do modelo nos grupos, indicam que a direção e força entre variáveis preditoras, variáveis mediadoras e variáveis resultados, são razoavelmente semelhantes. Ora, se por um lado estes resultados apoiam a hipótese de que a narrativa de carreira é dinâmica e se constrói pela interação da pessoa com o meio (Gazo & Romero-Rodriguez, 2019; Savickas, 2021), por outro, indicam que as variáveis preditoras e mediadoras analisadas, são fundamentais na gestão pessoal de carreira, independentemente do número de papéis de vida acumulados. Além disso, convém notar que o modelo apresentou um bom ajuste numa amostra relativamente heterogénea. Não apenas em termos do tipo de grupo de estudo, mas também, em termos da sua faixa etária. Isto significa que, numa perspectiva desenvolvimentista (Hartung, 2021; Savickas, 2005; Super, 1980), o modelo teórico avaliado parece ser adequado para pessoas nas fases de carreira referentes à exploração (14-24 anos), estabelecimento (25-44 anos) e manutenção (45-65 anos). Este indicador é particularmente vantajoso, considerando a volatilidade e competitividade do mercado laboral, que tem incentivado cada vez mais e diversas pessoas a ingressar nas instituições de ensino superior (Hauschildt et al., 2018; Martins et al.,

2018; OECD, 2020; Pabollet et al., 2019). Como referido no capítulo introdutório, ainda que o perfil de estudantes nas instituições de ensino portuguesas seja predominantemente jovem (Martins et al., 2018; OECD, 2020), outros estudantes, com mais idade e experiência profissional, começam igualmente a procurar esta oferta de ensino (e.g., Carreira & Lopes, 2020; DGEEC, 2022). Assim será necessário que todos os profissionais que trabalham junto deste grupo de estudantes estejam preparados para facilitar o processo de adaptação. Neste sentido, o modelo proposto e avaliado poderá ser uma ferramenta útil, ainda que se reconheça a necessidade de mais estudos à validade do mesmo.

## **2. Implicações práticas e teóricas**

Os resultados obtidos a partir dos estudos empíricos conduzidos no âmbito da presente dissertação, apresentam contributos importantes, tanto para a prática clínica, como para o desenvolvimento da teoria. Nesta secção, iremos adotar uma perspetiva integradora dos quatro estudos empíricos, complementar às reflexões mais específicas efetuadas no final dos respetivos estudos.

No geral, os resultados obtidos sugerem dois tipos de abordagem para o contexto de prática vocacional. Por um lado, uma abordagem preventiva. Neste âmbito, poderíamos pensar num programa de rastreio à entrada no ensino superior, o qual avaliasse dimensões pessoais (i.e., prontidão e recursos de carreira) e contextuais (i.e., suporte social percebido) que parecem ter impacto nos resultados de adaptação a este ciclo de estudo. Esta avaliação poderia inclusive fazer uso de duas das medidas aqui validadas, a Escala de Orientação Proteana de Carreira e a versão reduzida da Escala sobre Adaptabilidade de carreira. Posteriormente, com base nos resultados obtidos dessa avaliação os estudantes poderiam ser distribuídos por grupos, definidos com base na proximidade do perfil de necessidades, e a partir daí, trabalhar os aspetos em falta, seja numa perspetiva individual ou institucional.

Por exemplo, se os estudantes reportarem baixos níveis de suporte social percebido, poderá ser relevante perceber, num primeiro momento, se a instituição de ensino oferece algum serviço nesse âmbito (e.g., programas de acolhimento, mentorias). Num segundo momento, se a instituição oferecer, pode ser relevante explorar o que poderá estar a correr menos bem para esses serviços não alcançarem os estudantes (e.g., “será défice na divulgação?”). Já se houver falta efetiva desses serviços, pode ponderar-se criar algo nesse âmbito, adaptando-se cada decisão aos recursos disponíveis na instituição (e.g., de recursos humanos, tempo, financeiros, entre outros) (e.g., Gazo & Romero-Rodriguez, 2019; Lent, 2021; Páramo et al., 2014; Ricks & Warren, 2021; Tinajero et al., 2020). Enquanto isso, se a avaliação de necessidade identificar baixos níveis de prontidão, pode ser útil, por exemplo, encaminhar

o estudante para os serviços de Psicologia da instituição (caso aplicável). Aqui, o técnico responsável deverá explorar, com o estudante, quais os seus valores pessoais e motivá-lo/a para uma gestão autónoma da carreira, através da formulação conjunta de objetivos e ações concretas para os alcançar (e.g., Abessolo et al., 2017a; Abessolo et al., 2017b; Briscoe & Hall, 2006; Greenhaus et al., 2019; Hall et al., 2018).

Por outro lado, os resultados obtidos na presente dissertação podem igualmente informar uma abordagem remediativa. Neste caso, seria importante elaborar sistemas de alerta que sinalizassem estudantes com resultados de adaptação predominantemente baixos, por exemplo, através de avaliações anuais. Assim, com base nos resultados obtidos, poder-se-ia abordar esses mesmos estudantes para explorar quais os fatores explicativos dos baixos resultados. Imagine-se que para um dado número de estudantes, o bem-estar académico estava abaixo do valor médio esperado. Valor este, variável consoante a escala de avaliação utilizada. Com base no modelo teórico proposto e validado no estudo 4, algumas hipóteses poderiam ser colocadas. Por exemplo, “será que o estudante escolheu este curso com base em pressões sociais/familiares?” ou “a exploração não foi devidamente sistemática e intencional?”. Nestes casos, tanto a teoria sociocognitiva da carreira (Lent, 2021), como a teoria de construção de carreira (Savickas, 2021), sugerem uma análise atenta ao leque de opções vocacionais consideradas, já eliminadas, e até, aquelas que ainda não foram exploradas. Por um lado, este processo fomenta, no estudante, a atitude de curiosidade acerca do percurso de carreira atual e futuro, podendo inclusive instigar a expansão do leque de opções vocacionais consideradas. Por outro lado, permite ao técnico de psicologia perceber se, por exemplo, o estudante explorou diferentes opções, mas por imposição da família viu-se obrigado a frequentar um curso no qual não tinha interesse. Ou, se na ausência de pressões externas, outros fatores contribuíram para uma escolha devida ao acaso. Apenas no primeiro caso será necessário que o técnico acrescente à intervenção descrita, momentos de treino comunicacional, que capacitem o estudante a enfrentar incongruências existentes entre o(s) seu(s) desejo(s) e o(s) desejo(s) de terceiros.

Não obstante, independentemente da abordagem (i.e., preventiva, remediativa), é claro pelos resultados encontrados no estudo 4, que programas de intervenção intencionalmente desenhados para a população de universitários e cujo objetivo seja motivar uma melhor adaptação ao ensino superior, incluam módulos referentes: (1) à rede de suporte social, (2) ao desenvolvimento de uma orientação proteana face à carreira, e (3) ao desenvolvimento de recursos de adaptabilidade.

Assim como os resultados obtidos no presente estudo, também outros estudos empíricos conduzidos junto de universitários, suportam a relação entre estas variáveis, a adoção de

comportamentos de carreira adaptativos e melhores resultados de adaptação (e.g., Baruch, 2014; Briscoe et al., 2012; Chui et al., 2022; Cortellazzo et al., 2020; Garriott et al., 2015; Herrmann et al., 2015; Hirschi et al., 2017; Lent et al., 2017; Magnano et al., 2021; Merino-Tejedor et al., 2016; Neureiter & Traut-Mattausch, 2017; Öncel, 2014; Yıldız-Akyol & Öztemel, 2021). Neste sentido, podemos igualmente retirar implicações para a literatura sobre adaptação ao ensino superior e de carreira. Em particular, o estudo 4 constitui-se como mais uma evidência a favor da relação empírica entre estas variáveis. Além de introduzir à literatura sobre adaptação ao ensino superior uma perspectiva da Psicologia Vocacional, hipotetizando e validando um modelo que conjuga duas abordagens contemporâneas sobre a carreira, a abordagem sociocognitiva (Lent, 2021) e a abordagem construtivista (Savickas, 2021) da carreira.

Paralelamente, os estudos de validação de medida, além de contribuírem para a avaliação das estratégias de intervenção até aqui abordadas, representam, igualmente, um avanço no campo da avaliação psicológica em Portugal. Consequentemente, mais estudos serão possíveis. Por exemplo, estima-se que o estudo de validação da Escala de Orientação Proténa instigue futuras investigações sobre o construto em amostras constituídas por estudantes de diferentes níveis de ensino (e.g., ensino básico, secundário, e superior). Para nosso conhecimento, até ao momento, esta literatura tem sido predominantemente dominada por estudos com adultos trabalhadores (sugere-se a consulta da revisão e meta-análise de Wiernik & Kostal, 2019). Da mesma forma, os estudos de validação da Escala sobre Adaptabilidade e do Inventário de Construção de Carreira possibilitam avanços na teoria de construção de carreira (Savickas, 2021), já que os mesmos foram desenvolvidos nesse âmbito. Em particular, a Escala sobre Adaptabilidade de Carreira foi desenvolvida com o intuito de avaliar os recursos individuais de adaptabilidade, segunda dimensão do modelo (Savickas & Porfeli, 2012). Enquanto o Inventário de Construção de Carreira foi desenvolvido para aceder aos comportamentos adaptativos produzidos (Savickas et al., 2018), terceira variável do modelo (figura 3, capítulo 1).

### **3. Limitações e direções para futuras investigações**

Sem descurar as implicações práticas e teóricas da presente dissertação, procuraremos de seguida, refletir sobre algumas das suas limitações gerais. Esperamos, com isso, motivar futuras investigações neste campo de conhecimento, que é a Psicologia Vocacional, com foco no processo de adaptação ao ensino superior, para que novos recursos possam ser desenvolvidos e novas evidências emergjam como guia para a prática.



No que respeita à primeira etapa da investigação conduzida, é importante realçar que, além de se acrescentarem valor à literatura sobre os instrumentos de avaliação psicológica existentes em Portugal, os estudos métricos permitiram igualmente cumprir com o objetivo geral da tese. Neste caso, entender quais os processos de adaptação à carreira de estudante universitário. Porém, reconhece-se que num campo mais alargado da literatura é necessário estender estes estudos métricos a outros grupos (e.g., estudantes do ensino básico, indivíduos com incapacidade física e/ou intelectual) e culturas. Neste último caso, seria particularmente relevante, explorar o ajuste das medidas em grupos culturalmente distintos, mas que partilhassem do mesmo idioma (e.g., Portugal, Brasil, Angola). Esta sugestão justifica-se pelas medidas aqui consideradas, se definirem por um conjunto de itens respeitantes a construtos psicossociais (e.g., Hall et al., 2018; Savickas & Porfeli, 2012), o que significa que são construtos elaborados por interação da pessoa com o meio (i.e., orientação proteana, adaptabilidade e comportamentos adaptativos de carreira). Mesmo os comportamentos, podemos considerar que são apreendidos e ajustados à fase de desenvolvimento e às exigências do meio (e.g., Greenhaus et al., 2019; Lent & Brown, 2013).

Um outro aspeto a ter em mente é que estes estudos partem de uma amostra recolhida de forma não aleatória e por conveniência, o que explica alguns desequilíbrios. Por exemplo, entre a quantidade de homens e mulheres. Ainda que estes desequilíbrios sejam naturalmente espelhados no contexto real das instituições de ensino superior (DGEEC, 2022), recomenda-se que futuros estudos adotem métodos probabilísticos para uma maior precisão e generalização dos dados. Por último, destaca-se que os estudos de medida incluídos na presente dissertação, incluem maioritariamente análises à validade interna, fiabilidade e validade concorrente. Ainda, que se possam considerar estudos robustos e úteis, seria igualmente relevante explorar outras qualidades psicométricas. Nomeadamente, a validade preditiva, com recurso a um design longitudinal. Como referido anteriormente, as medidas analisadas representam construtos que se elaboram e desenvolvem por interação da pessoa com o meio (e.g., Hall et al., 2018; Savickas & Porfeli, 2012). Neste caso, isso significa que ao longo do tempo o tipo de orientação pessoal face à carreira, os recursos de adaptabilidade desenvolvidos, ou até mesmo os comportamentos adotados na gestão da própria carreira podem oscilar. Porém, as medidas desenvolvidas para avaliar estes mesmos construtos devem permanecer estáveis no tempo. Só assim será possível tirar ilações dos resultados obtidos, após uma avaliação psicológica com recurso às mesmas. Nomeadamente, poder afirmar que os dados recolhidos são melhor explicados por questões individuais e não métricas. Assim, sugerem-se mais estudos em contexto português sobre as medidas.

Enquanto isso, o estudo 4, de teste ao modelo teórico proposto para explicar os processos de adaptação à carreira de estudantes universitários, apresenta-se como um passo importante para a literatura. Especialmente por cruzar duas abordagens da Psicologia Vocacional, a teoria sociocognitiva de carreira (Lent, 2021) e a teoria de construção de carreira (Savickas, 2021), para explicar fenómenos descritos na literatura do ensino superior, como o fenómeno de adaptação (Araújo, 2017; Bücken et al., 2018; Goegan & Daniels, 2019; Prevatt et al., 2011; York et al., 2015). Não obstante, reconhece-se que sendo este um modelo de processo, tal como as abordagens teóricas que lhe serviram de base, seria importante que futuros estudos adotassem um desenho longitudinal. Este desenho de pesquisa não integrou o plano da presente dissertação, uma vez que se detetou desde início a necessidade de validar três das medidas do modelo e o presente estudo, pode definir-se como estudo piloto de teste ao modelo teórico proposto. Agora, com os resultados obtido de suporte à validade do modelo, será importante passar ao passo seguinte de teste ao modelo numa amostra longitudinal.

Adicionalmente, recomenda-se que futuros estudos foquem o teste do modelo no grupo de estudantes-trabalhadores em particular. Como referido no capítulo introdutório, a população universitária é diversa e mesmo neste grupo de estudantes podemos distinguir os estudantes que trabalham dos trabalhadores que estudam (Berker et al., 2003; Carreira & Lopes, 2020). Grupos marcados por diferentes motivações e prioridades no que respeita à gestão dos papéis de vida (e.g., estudo, trabalho, família, lazer) (e.g., Carreira & Lopes, 2020; Furey, 2020; Gamboa et al., 2018; Pinto & Salume, 2013). Além de que, também dentro de cada um destes grupos podemos distinguir entre os que apresentam estatuto legal de estudante-trabalhador e os que não apresentam. Uma variável, que junto com o número médio de horas semanais despendidas no emprego, pode impactar os resultados objetivos e subjetivos de adaptação ao ensino superior incluídas no modelo proposto (i.e., rendimento e bem-estar académico, satisfação geral com a vida) (e.g., Burston, 2017; Tetteh & Attiogbe, 2019). Assim sugere-se que mais testes sejam efetuados, inclusive com este grupo particular de estudantes, controlando-se as variáveis mencionadas. Inclusive, este cuidado foi antecipado no estudo 4 para os grupos em estudo, incluindo-se como covariável no modelo os “dependentes a cargo”. O racional aplicado é o mesmo das horas de trabalho semanais, já que em ambos os casos os papéis adicionais (i.e., cuidador dos dependentes e trabalhador) podem gerar conflito pelo fator tempo (Burston, 2017). Porém, por motivos de incumprimento do pressuposto da linearidade a variável sobre os dependentes a cargo não integrou o modelo final testado. Assim, sugerem-se mais estudos sobre o tema. Com a recolha de novas amostras é necessário verificar se esta variável, assim como a variável resultado “rendimento académico”, passa a apresentar-se como adequada para o teste de modelo. No presente estudo, estas foram as duas

variáveis excluídas por incomprimento da linearidade, porém a literatura destaca a sua importância no processo de adaptação (Burston, 2017; Goegan & Daniels, 2019; Greenhaus & Beutell, 1985; York et al., 2015).

Por último, ainda no seguimento da linha de ideias apresentadas, considera-se relevante estender a avaliação do modelo proposto às fases de desenvolvimento de carreira (Hartung, 2021; Lent & Brown, 2013; Savickas, 2005). Por exemplo, através da distribuição dos participantes por diferentes grupos etários. Como referido na secção de síntese e reflexão aos resultados obtidos nos estudos empíricos, a amostra onde o modelo teórico proposto foi avaliado é composta por estudantes de diferentes idades. Isto pode significar, pessoas em diferentes fases de carreira, com diferentes preocupações, necessidades e prioridades (e.g., Hartung, 2021; Newman & Newman, 2015). Ainda que o modelo testado tenha apresentado um ajuste adequado na amostra, o que parece apontar para uma aplicabilidade alargada do modelo, um olhar mais atento a este fenómeno é necessário. Especialmente, porque pessoas em diferentes fases de carreira tendem a apresentar diferentes experiências de vida, bem como, a acumular diferentes ocupações (Hartung, 2021; Savickas, 2021). Assim, seria útil avaliar a invariância do modelo entre grupos respeitantes às fases da exploração, estabelecimento e manutenção. Grupos estes, mais comuns de se encontrar no ensino superior. Nomeadamente, pelas crescentes exigências de formação ao longo da vida, como meio para garantir a empregabilidade individual, e pelas políticas europeias de aumento ao número de indivíduos com diploma de nível superior (e.g., De Vos et al., 2021; European Commission/EACEA/Eurydice, 2018; Lo Presti et al., 2020; Pabollet et al., 2019).

## **CONCLUSÃO GERAL**

Considerando a crescente aposta no capital humano, que leva mais e diferentes estudantes a ingressar num nível de ensino superior (e.g., Hauschildt et al., 2018; Martins et al., 2018; OECD, 2020), esta tese teve como principal objetivo compreender quais os processos facilitadores de uma melhor jornada académica. Principalmente, porque a literatura indica que indivíduos com mais formação são indivíduos mais apelativos para o mercado de emprego (e.g., De Vos et al., 2021; Lo Presti et al., 2020; Tentama & Abdillah, 2019; Tomlinson, 2012), e também, são indivíduos com uma menor probabilidade de contribuir para as taxas de desemprego, o que é benéfico para a economia do país (Duarte et al., 2019). Neste sentido, os resultados obtidos de teste ao modelo teórico proposto, indicam que uma melhor adaptação ao ensino superior, espelhada em resultados de bem-estar académico, certeza vocacional e uma maior satisfação geral com a vida, são preditos pela conjugação de variáveis contextuais com variáveis pessoais de carreira. Em particular, estudantes que percecionam uma rede efetiva de suporte face ao curso, adotam uma orientação proteana face à carreira, atitudes e comportamentos de carreira adaptativos, são aqueles que melhor se adaptam aos desafios impostos pela jornada académica (i.e., desafios académicos, sociais, vocacionais, desenvolvimentais, pessoais e emocionais) (e.g., Almeida et al., 2008; Almeida et al., 1999; Araújo et al., 2014; Carreira & Lopes, 2019; Casanova, 2018; Gazo & Romero-Rodriguez, 2019; Mestan, 2016; Movimento Associativo Estudantil, 2016; Ricks & Warren, 2021; Soares et al., 2006; Soares, 2016; Valadas et al., 2016). Sejam estes estudantes exclusivamente dedicados ao papel estudantil, ou aqueles que repartem o seu tempo entre estudo e trabalho remunerado. Assim, ainda que se reconheça a necessidade de mais estudos à validade do modelo proposto, os resultados parecem suportar a sua utilidade, tanto para a literatura vocacional e do ensino superior, como para todos os profissionais (e.g., psicólogos, docentes) que trabalham junto desta população e desejam contribuir para uma jornada mais produtiva e agradável, diminuindo as taxas de abandono.

Além disso, é importante relembrar que ao longo da presente investigação houve a necessidade de colmatar algumas falhas na literatura da avaliação psicológica em Portugal e validar três medidas, as quais forma posteriormente utilizadas no teste ao modelo teórico supracitado. Em particular, a Escala de Orientação Proteana de Carreira, indicador da dimensão de prontidão no modelo proposto, a versão reduzida da Escala sobre Adaptabilidade de Carreira, indicador dos recursos de adaptabilidade no modelo proposto, e o Inventário de Construção de Carreira, indicador dos comportamentos de carreira adaptativos no modelo proposto. A partir dos resultados obtidos em cada um destes estudos, conclui-se que as medidas apresentam boas qualidades psicométricas, no que respeita à validade interna, validade concorrente e fiabilidade, podendo ser utilizadas tanto para fins de investigação, como prática clínica de

aconselhamento de carreira, ou até o contexto organizacional. Não obstante, destacou-se igualmente ao longo da presente dissertação, a necessidade de mais estudos sobre as medidas. Por exemplo, alargando-se o estudo das mesmas a outros grupos de indivíduos.

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**ANEXOS**



Universidade do Minho

Conselho de Ética

### **Comissão de Ética para a Investigação em Ciências Sociais e Humanas**

Identificação do documento: CEICSH 093/2021

Relatores: Emanuel Pedro Viana Barbas Albuquerque e Marlene Alexandra Veloso Matos

Título do projeto: *Adaptação à Carreira em Estudantes-Trabalhadores*

Equipa de Investigação: Joana Antunes Guimarães Soares (IR) estudante de Doutoramento, Escola de Psicologia, Universidade do Minho e Maria do Céu Taveira de Castro Silva (Orientadora), Centro de Investigação em Psicologia, Escola de Psicologia, Universidade do Minho

### **PARECER**

A Comissão de Ética para a Investigação em Ciências Sociais e Humanas (CEICSH) analisou o processo relativo ao projeto de investigação acima identificado, intitulado *Adaptação à Carreira em Estudantes-Trabalhadores*.

Os documentos apresentados revelam que o projeto obedece aos requisitos exigidos para as boas práticas na investigação com humanos, em conformidade com as normas nacionais e internacionais que regulam a investigação em Ciências Sociais e Humanas.

Face ao exposto, a Comissão de Ética para a Investigação em Ciências Sociais e Humanas (CEICSH) nada tem a opor à realização do projeto nos termos apresentados no Formulário de Identificação e Caracterização do Projeto, que se anexa, emitindo o seu parecer favorável, que foi aprovado por unanimidade pelos seus membros.

Braga, 26 de outubro de 2021.

O Presidente da CEICSH

(Acílio Estanqueiro Rocha)