# Contextual Antecedents of Entrepreneurship and Well-being

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## Abstract

In recent years, research on entrepreneurship has embraced two previously neglected perspectives: the well-being of entrepreneurs and the contextual antecedents of entrepreneurship (Stephan, 2018; Welter, 2011). This dissertation aims to provide new insights into the intersection of these topics and more detailed contextual determinants of entrepreneurship and entrepreneurial well-being. To do so, research in this dissertation adopts the family embeddedness perspective on entrepreneurship, putting the family at the center of attention (Aldrich and Cliff, 2003). Although an entrepreneur's life partner is the closest person in their life, research has neglected this role thus far (Carter et al., 2017; Williams, 2012). To address this underappreciated role, this dissertation focuses on the influence of the life partner.

By investigating whether the life partner and their occupational choice affect entrepreneurial well-being, this dissertation shows how beneficial life partners, particularly entrepreneurial life partners, are for entrepreneurial well-being. Self-employed individuals display higher levels of job satisfaction than wage-employed ones (Binder and Coad, 2016; Parasuraman et al., 1996; Parasuraman and Simmers, 2001; Stephan, 2018; Stephan et al., 2022). Building on that, positive crossover-effects from self-employed life partners increase job satisfaction for the other part of the couple, irrespective of whether they are wage or self-employed. However, self-employed life partners negatively impact the life partner's family satisfaction, as entrepreneurship often comes with time-based conflicts that increase the likelihood of work-family conflicts (Blanchflower, 2004; Kollmann et al., 2019; Parasuraman and Simmers, 2001). Nevertheless, in sum, self-employed life partners are more beneficial for the overall life satisfaction of entrepreneurs than wage-employed ones. The reduced family satisfaction is outweighed by higher job satisfaction that transfers from the self-employed life partner to

the entrepreneur.

Moreover, the contextual focus on entrepreneurship is reflected in the impact a self-employed life partner has on an individual's propensity to enter entrepreneurship via different paths. As hybrid entrepreneurship becomes more prevalent in Germany (Butkowski et al., 2022), it is reasonable that research into entrepreneurship addresses this form of entrepreneurship that requires fewer time and resource commitments than full-time entrepreneurship (Folta et al., 2010) and connects it to relevant research topics in entrepreneurship research, such as entrepreneurial well-being and the family embeddedness perspective. The results of this dissertation support the idea that female hybrid entrepreneurs are more confident about moving into full-time self-employment when their life partner is already self-employed. This effect is opposite to that of the direct change from dependent employment to full-time self-employment irrespective of gender. Moreover, returning to well-being, this dissertation also provides new insights into the effect of hybrid entrepreneurship on satisfaction with life, work, and leisure time. In showing that hybrid entrepreneurship reduces job and life satisfaction and that it appears to be only an intermediate step on the path to full-time entrepreneurship, this dissertation delivers complementary results from Germany to Ardianti et al.'s (2022) initial study.

Additionally, this dissertation incorporates contextually related research on the well-being of employees. One commonly used measure to capture the well-being of employees is the effort-reward imbalance model introduced by Siegrist (1996). If an employee is exposed to high levels of effort, such as a high workload and time pressure, but simultaneously receives low levels of reward from superiors, chronic stress can occur and lead to harmful impacts on the mental and physical health of the employee (Siegrist, 1996). While research on the impacts of an effort-reward imbalance on the physical and mental health of an employee

already exists (e.g., Dragano et al. 2017; Fahlén et al., 2006; Toppinen-Tanner et al., 2002), current research neglects the role of antecedents that lead to an effort-reward imbalance. This dissertation links the size of an organization to the level of the employees' effort-reward imbalance, leading to interesting results. In this regard, medium-sized organizations face the worst balance of effort and reward for their employees. This finding supports the idea that middle-sized organizations struggle to overcome the harmful "liability of the middle". The "liability of the middle" is reasoned in organizational issues to develop formalization and standardization according to the growth of the organization (Hannan and Freeman, 1977).

Overall, this dissertation contributes to the literature on entrepreneurial well-being and the family embeddedness perspective by demonstrating the relevance of the life partner and their occupational position for the entrepreneur. Moreover, this dissertation provides further insights into hybrid entrepreneurship and its impact on well-being, revealing different well-being patterns for hybrid and full-time entrepreneurship. The findings of this dissertation can be an encouragement for individuals to enter self-employment even if the life partner is self-employed as well. Although this might be perceived as a risky situation related to the safeguarding of the household income it can result in a well-being surplus for the couple. Furthermore, the findings have interesting implications for practitioners in business and politics. For instance, financial suppliers and politicians should regard the life partner as a valuable resource for the entrepreneur that increases their well-being. Nevertheless, politicians should implement programs that enable better compatibility between self-employment and family life, as this might increase the number of new business ventures.

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## List of Abbreviations

| | |
|---|---|
| AOD | Ardianti, Obschonka, and Davidsson (2022) |
| CMCC | Cross-model Coeffiecient Comparison |
| e.g. | Exempli gratia (for example) |
| ERI | Effort-reward imbalance |
| EWB | Entrepreneurial well-being |
| FEP | Family embeddedness perspective |
| GSOEP | German Socio-Economic Panel |
| HE | Hybrid Entrepreneurship |
| HR | Human resource management |
| ref. | Reference |
| SME | Small and medium-sized enterprises |
| VHB (Ranking) | Verband der Hochschullehrer für Betriebswirtschafts (Ranking) |
| WFC | Work-family conflict |
| WFE | Work-family enrichment |
| WFI | Work-family interfere |

# 1. Introduction

## 1.1 Research Motivation

*"Our body and mind work on different laws…the law of the body is effort, but the law of the mind is effortlessness."* (Swami Purnachaitanya)[1]

From the words of Swami Purnachaitanya, a famous author and speaker, one might think of self-employment as an occupation that makes it hard for the law of the body and the law of the mind to be balanced and not in conflict. A well-known German proverb about self-employed people is self-employed people work by themselves and all the time. This illustrates the possible clash between the body and mind that self-employment entails. Performing a self-employed activity makes it difficult to get mental distance from the work to recover and rest (Williamson et al., 2019). This makes it hard to fulfill the law of the mind, "effortlessness", even in free time.

In recent years, research on entrepreneurship has incorporated the impacts that self-employment – or in other words, being an entrepreneur – has on an individual's physical and mental health, called entrepreneurial well-being (EWB; Stephan, 2018). Being an entrepreneur is accompanied by high levels of stress that might decrease individual well-being (Carter, 2011; Stephan et al., 2022; Wach et al., 2021; Wiklund et al., 2019; Williamson et al., 2021). However, it is also accompanied by higher levels of flexibility and autonomy compared to wage employment (Parasuraman and Simmers, 2001; Schjoedt, 2009). Studying these characteristics of entrepreneurship and their impacts on the well-being of entrepreneurs is the core of research into EWB. EWB looks beyond the success-driven impacts of entrepreneurship to prevent ill-being and can thus prevent an involuntary cessation of

[1] This quote is taken from the Podcast "Kale&Cake – Der Body Mind Therapy Podcast", episode "Eine neue, wunderschöne Betrachtungsweise von Meditation – Teil 2 mit Swami Purnachaitanya from 31st of May, 2022.

business due to mental or physical illness (Williamson et al., 2021). Furthermore, well-being promotes productivity, creativity, and innovative behavior and thus also positively impacts the entrepreneur's business (Carree and Verheul, 2012; Hobfoll, 2001; Williamson et al., 2019).

The present dissertation aims to present new insights into EWB, focusing on entering entrepreneurship via hybrid entrepreneurship (HE) and on the context in which entrepreneurship occurs as an antecedent that shapes, constrains, and augments entrepreneurship (Welter, 2011). Current research considers context in terms of entrepreneurship in three different dimensions: “who”, “where”, and “when” (Welter, 2011; Whetten, 1989). The studies in this dissertation aim to uncover new findings about the “where” dimension of contextualized entrepreneurship, particularly its social type. The social type of context addresses networks that provide support to entrepreneurs. This support can be provided, for example, by “extended family, community-based, or organizational relationships” (Davidsson and Honig, 2003: p. 307). The studies incorporated in this dissertation consider the family and household and their possible effects on entrepreneurial propensity and EWB. The household and the family are the closest ties of an entrepreneur, which supports the need to regard entrepreneurship from a family-embeddedness perspective (FEP; Aldrich and Cliff, 2003). For instance, research has shown that spousal commitment may help to mitigate the liability of newness and smallness by providing work and financial resources to an entrepreneur (Werbel and Danes, 2010). Life partners and marriage in general have been proven by previous research to have beneficial effects on an individual’s well-being (Gove, et al., 1983; Wilson and Oswald, 2005). Life partners and marriage provide, among others, non-pecuniary benefits such as social and emotional support (Kim and McKenry, 2002). Furthermore, life partners prevent individuals from experiencing social isolation and build a buffer against distress in daily life (see Verbakel, 2012 for an overview).

The special characteristics of entrepreneurship, like insecurity, long working hours, and difficulties in detachment from work, highlight the reason to focus on the life partner and their impact on entrepreneurs. However, few studies in the current literature have examined life partners in the entrepreneurial context (e.g., Caputo and Dolinsky, 1998; Hatak & Zhou, 2021 Özcan, 2011). We already know that the health of the spouse augments the human capital of entrepreneurs and so impacts their business success positively (Hatak and Zhou, 2021). Research has shown that marriage affects the propensity to enter self-employment (Caputo and Dolinsky, 1998; Özcan, 2011) but that there is a gender difference in the impact of the family on new venture creation (Kirkwood, 2012). Research has also indicated that separation from the life partner increases an entrepreneur's likelihood of exiting self-employment (van Loon et al., 2020). Furthermore, self-employed individuals face a higher likelihood of work-family conflicts in comparison to wage employed individuals (Parasuraman and Simmers, 2001). Despite the initial research article about entrepreneurship from the FEP by Aldrich and Cliff (2003) calling for further research to reveal new insights into the role of the family in new venture creation, the role of the family in EWB remains unclear. For instance, research has not determined the following aspect of self-employment in the family context: whether a life partner is more important for the well-being of an entrepreneur than for an employed individual. This dissertation aims to present new insights and answers to these questions to provide new knowledge about the role of the life partner in EWB.

As previously announced, this dissertation also incorporates research on HE. When individuals start with self-employed activities, some enter directly into full-time entrepreneurship by quitting wage-employment, while others take the initial steps toward self-employment by keeping their wage employed position and simultaneously executing self-employment in secondary employment. The latter is considered HE (Folta et al, 2010). In 2016, 3.39 million people worked as hybrid entrepreneurs in Germany, making it the first time their number

exceeded that of full-time entrepreneurs (Butkowski et al., 2022). In scientific discussion, Folta et al. (2010) were the first to write about HE. They discuss three reasons why individuals enter HE: additional income, nonmonetary benefits, and an initial movement to transition into full-time entrepreneurship (Folta et al., 2010: pp. 244–245). The present dissertation fills the identified research gaps in HE (Demir et al., 2020) by linking HE and the FEP. Unlike for the switch to full-time entrepreneurship, there are no empirical insights about how the life partner affects the decision to approach HE. Furthermore, like the research stream on EWB, which has delivered multiple findings on the effects of full-time entrepreneurship on individuals' well-being, the effects of HE are vast. To the best of our knowledges, there exists just one empirical study on how HE impacts the well-being of individuals (Ardianti et al., 2022). Like for EWB in general, this dissertation also gives new insights into the context and well-being-specific patterns of HE. The increased number of hybrid entrepreneurs in Germany supports closer investigation.

The dissertation includes context-specific research on employee well-being. Contextual antecedents of employee well-being will complement the dissertation by investigating whether the size of an organization influences the well-being of its employees. While the perceived effort level of self-employed individuals is measurable, there is no valid construct that captures their perceived reward. In contrast to this, regarding the perceived occupational reward of wage employed individuals a validated construct exists. One of the most common measures to capture employee well-being is the so-called effort-reward imbalance (ERI) of organizationally employed individuals (Siegrist, 1996). The ERI model contrasts the experienced reward and the experienced effort of wage-employed individuals. If reward and effort are not balanced, the individual will experience stress, which can take on a chronic character and cause cardiovascular diseases and depression symptoms in the long term (Siegrist, 2002, 2008). Research has already delivered results about the harmful impacts of an ERI (Dragano et al., 2017; de Jonge et al., 2000; Fahlén et al., 2006; Toppinen-Tanner et al., 2002). For instance,

individuals who experience an ERI have a higher likelihood of suffering burnout and sleep disturbances (Fahlén et al., 2006; Toppinen-Tanner et al., 2002). Additionally, research has shown that individuals who face an ERI have a higher likelihood of being victims of bullying (Notelaers et al., 2019). However, few studies focus on the antecedents, especially in the organizational context, of ERI for employees. One of the studies included in this dissertation is dedicated to uncovering the causes of the ERI by examining whether organizational size impacts it.

An overview of the structure of this dissertation is as follows: building on the research motivation presented in this chapter, the introduction will continue to describe the underlying theoretical considerations and research questions of the individual chapters. Finally, it will be completed by information on the publication status and the authors' respective contributions to the individual chapters. The core of the thesis then follows with the individual research projects as separate chapters. The dissertation ends with an overall consideration of the theoretical and practical implications drawn from the main findings of the initial studies.

## 1.2 Theoretical Considerations

The Organization for Economic Co-operation and Development (OECD) describes the quality of an individual's life as indispensable when making assumptions about the progress of a society (OECD, 2013). Measuring the well-being of individuals in a society in addition to the commonly used pecuniary measures like GDP provides a complete approach to capturing the prosperity of a society or country (Nozal et al., 2019). Furthermore, entrepreneurship research has traditionally measured entrepreneurial success by focusing on firm outcomes like revenues and firm growth (Wiklund et al., 2019). However, times have changed, and in the last five years, entrepreneurship scholars have increasingly incorporated an interdisciplinary approach to measuring and discussing the outcomes of entrepreneurship: namely EWB (see Stephan, 2018 for a review).

Well-being in general is a multifaceted term that can be regarded in different dimensions (Ryan and Deci, 2001). One approach is the hedonic one, which includes two possible perspectives. The cognitive-evaluative perspective captures well-being in the way individuals think and evaluate their current life situation, such as life satisfaction. The affective perspective makes assumptions about the well-being of an individual based on their negative and positive emotions and feelings (Helliwell and Barrington-Leigh, 2010; Kahneman and Riis, 2005). The experienced and evaluated perspectives on one's own life, "often together summarized as happiness" (Ryan and Deci, 2001: p. 144), depend on each other and influence individuals' way of thinking and evaluating their lives and vice versa (Kahneman and Riis, 2005). What differentiates the two dimensions is the temporal character, as emotions are more situational and reflect brief moments, so satisfaction with one's life is considered over a longer period (Helliwell and Barrington-Leigh, 2010). Both the cognitive evaluative and affective perspectives are defined and summarized in the literature as subjective well-being, as these dimensions strongly focus on the individual's own experiences and assessments (Diener, 1984). Complementary to the hedonic approach to well-being is the term "eudaimonic well-being". Eudaimonic well-being describes the fulfillment of a life that is led by desires and virtues to reach self-realization, which gives a higher sense to one's life (Ryan and Deci, 2001). Eudaimonic well-being contradicts the assumption that happiness alone defines well-being, not also living a meaningful life (Ryan and Deci, 2001). Eudaimonic well-being underlies two different theoretical approaches (Wiklund et al., 2019): self-determination theory in accordance with Ryan and Deci (2001) and the model of psychological well-being and its six key dimensions (self-acceptance, autonomy, personal growth, positive relationships, environmental mastery, and purpose in life) in line with Ryff (1989) and Ryff (2019). While there have been many discussions about which viewpoint (hedonic vs. eudaimonic) is better at defining and capturing the well-being of an individual, well-being in general should rather be considered as

a multifaceted and multidimensional term incorporating the hedonic and eudaimonic views (Ryan and Deci, 2001).

The focus of this dissertation lies on EWB, particularly the special antecedents of entrepreneurship affecting the well-being of self-employed individuals. In literature EWB is defined as "the experience of satisfaction, positive affect, infrequent negative affect, and psychological functioning in relation to developing, starting, growing, and running an entrepreneurial venture" (Wiklund et al., 2019: p. 582). One of the first characteristics related to entrepreneurship and well-being is the autonomy of the self-employed (Stephan et al., 2022). Self-employed individuals can pursue their professional activities with total autonomy, which increases entrepreneurs' job satisfaction and positive well-being (Benz & Frey, 2008; Ryan and Deci, 2001; Shir et al., 2019). In comparison to self-employed individuals, wage-employed ones have less autonomy in their professional life, resulting in less job-related well-being compared to self-employed individuals (Benz & Frey, 2008; Shir et al., 2019). As the interest in EWB has increased, so has the interest in the antecedents of the well-being of employees in general (Page and Vella-Brodrick, 2009).

One factor that is responsible for adverse effects on health and well-being of employees and entrepreneurs is stress (Quick and Henderson, 2016; see White and Gupta (2020) for a review). The dominant theoretical approaches researchers apply when examining the "psychosocial work environment" are the job demand-control model (JD-C) from Karasek (1979) and the ERI model of Siegrist (1996). Researchers often use the JD-C model when explaining and investigating differences in well-being and job-related stress for self-employed and wage-employed individuals (see e.g., Hessels et al., 2017). In the JD-C model, autonomy is a central factor captured by task control. According to the JD-C model, stress in professional contexts arises when occupational demands and related autonomy are imbalanced (Karasek, 1979; Van

Vegchel et al., 2005a). In contrast to the JD-C model, the ERI model investigates stress levels of employees by covering several aspects of the reward from the employer (Siegrist, 1996). Thus, the ERI is not applicable to measuring the stress levels of self-employed individuals, as there is no superior individual in a professional context who can reward self-employed individuals' performance directly.

The ERI model captures the ratio between employees' positive reward or feedback (monetary and non-monetary) received from superiors and the level of professional demands the employees are exposed to (extrinsic effort levels). If there is an imbalance of effort and reward over a long period, psychological stress increases and causes adverse well-being effects (Jamal, 1984). Furthermore, such an imbalance triggers negative emotions like anger, resentment, and distress (Siegrist, 1996). Ultimately, an imbalance of reward and effort could cause cardiovascular diseases from the increased release of stress hormones such as cortisol and adrenaline, which can lead to higher levels of inflammation and blood-pressure (Dragano et al., 2017). A central aspect of the ERI is reciprocity between effort and reward. If an employee is exposed to a job-situation that is characterized by high demands (high applied effort level, such as time-pressure and increasing workload) and low rewards (low monetary and non-monetary job-recognition, like wage-level and job-security), the principle of reciprocity is violated and stress is triggered (Siegrist, 1996).

The aim of this dissertation is to present new findings on contextual antecedents of EWB and the well-being of employees. As three chapters of this dissertation examine entrepreneurship and related well-being in the family context, particularly the role of the entrepreneur's life partner, there is reason to embrace theoretical considerations concerning the family embeddedness perspective (FEP; Aldrich and Cliff, 2003) and the literature on the work-family interface (WFI; Jennings and McDougald, 2007), including the work-family conflict (WFC)

and work-family enrichment (WFE) perspectives. As already introduced, the family of the entrepreneur is the closest tie in their life (Aldrich and Cliff, 2003). Conclusively, the FEP puts the family at the center of interest in research on entrepreneurship. It is about considering "family characteristics, transitions, resources, and values, as well as the social and economic context" and its effect on the venture creation process (Aldrich et al., 2021: p. 15). Family system characteristics incorporating "Transitions" (e.g., marriage, employment, etc.), "Resources" (financial, human, and social capital), and "Values" of the family have reciprocal interventions and might affect entrepreneurial orientation and behavior (Aldrich et al., 2021: p. 15). Furthermore, the FEP is not just about how the family affects the entrepreneur in terms of new venture creation and opportunity recognition but also how entrepreneurship affects the family, especially family dynamics and well-being (Carter et al., 2017; Jennings et al., 2013).

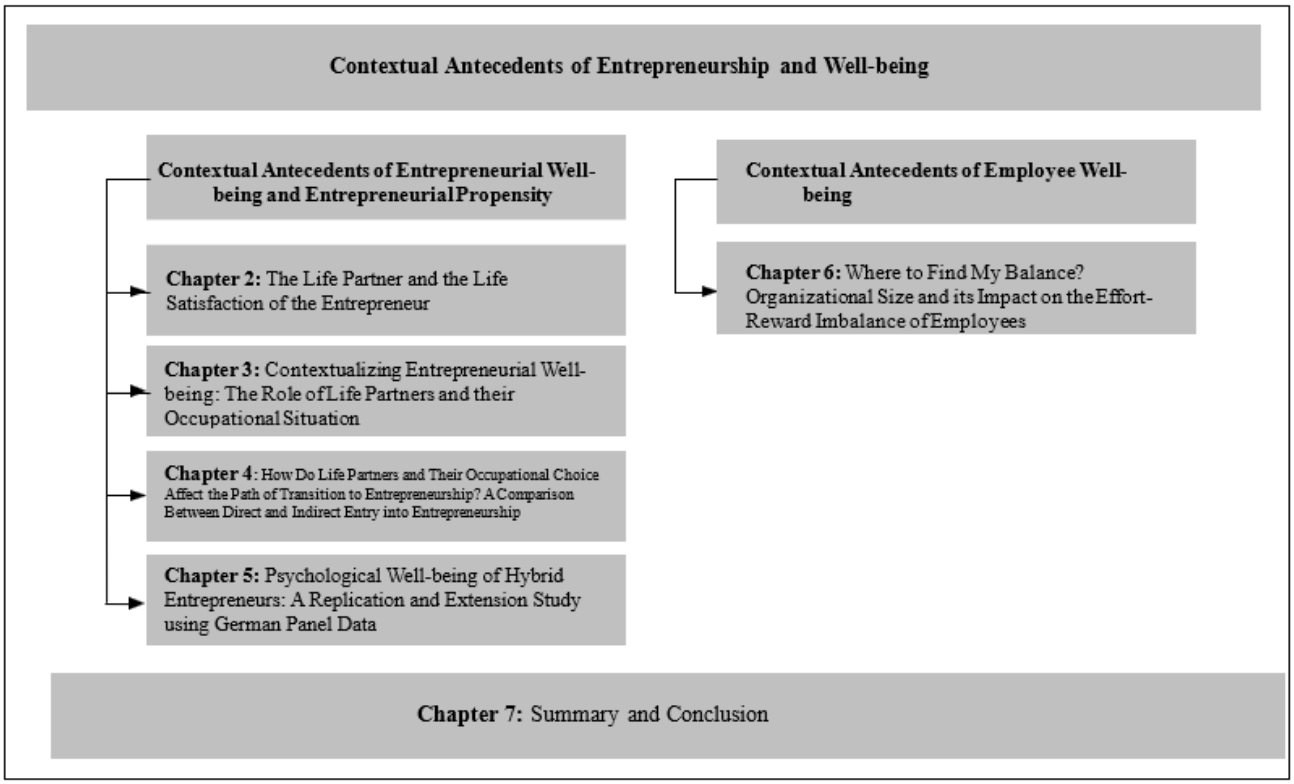
The literature on the WFI mainly focuses on two aspects: the first describes the interplay of the work domain and family domain in an individual's life, and the second aspect is about possible coping mechanisms to better handle the demands of the two domains (Jennings and McDougald, 2007). The intersection and interplay of work and family in an individual's life lead to the question of whether work and family life are enriching (WFE) or depleting (WFC) (Rothbard, 2001). The reciprocal relationship between the work and family domains and their positive and negative interdependencies are also related to spill-over theory in accordance with Staines (1980), including possible negative and positive spillovers between the two domains. Considering entrepreneurship from the WFE perspective, the domains of work and family in an individual's life affect one another positively by enabling the individual to experience different roles, resulting in positive role accumulation. Role accumulation evoked by fulfilling roles in the family domain and the work domain is the core argument in the WFE perspective. The WFC perspective assumes that the intersection of the work-related role and the family role results in incompatible time- and strain-based conflicts (Greenhaus and Beutell, 1985; Parasuraman and

Simmers, 2001). Time spent in one domain comes at the expense of the other, resulting in a time-based role conflict. Furthermore, strain perceived in one role may spillover negatively to the other domain, resulting in a strain-based conflict (Parasuraman & Simmers, 2001). As the number of dual-earner couples in society has increased, the historically and traditionally shaped role image that the male is the breadwinner and the female is the homemaker is outdated (Greenhaus et al., 1989; Hammer et al., 1997; Higgins et al., 1992; Moen and Yu, 2000; Parasuraman et al., 1992), the literature on WFI has also started to switch from the individual level to the couple level (Altobelli and Moen, 2007; Moen and Yu, 2000). Research on WFI at the couple level focuses on crossover effects (interindividual effects) within the couple in terms of their work and life domains, whereas spillover effects refer to intraindividual effects (Bakker et al., 2008; Hammer et al., 1997; Yucel and Latshaw, 2020). On the interindividual level within the couple, stress perceived in one life domain is responsible for a crossover effect on the life partner and their work-family relationship or well-being (Yucel and Latshaw, 2020). Research on this crossover within a couple suggests that there are patterns of positive and negative crossover effects where, for example, high negative work experiences and distress of an individual negatively crossover to the family domain and the spouse (Altobelli and Moen, 2007).

### 1.3 Overview of the Chapters and Main Research Questions

This dissertation contains five related but independent research articles that address individual research questions. This subchapter provides a brief overview of the derivation of the initial research questions for each chapter. Figure 1.1 provides an overview of the structure of this dissertation regarding the initial research chapters.

***Figure 1.1:*** *Overview of the initial research chapters*




The first two research questions directly concern the FEP in entrepreneurship and are related to Chapter 2. The family of the entrepreneur is the closest unit to them and can spend social capital (Aldrich and Cliff, 2003; Carter et al., 2017). The life partner plays a crucial role in the life of the entrepreneur by providing emotional support: "the provision of love, empathy, caring, and trust" (Israel et al., 2002: p. 343). Furthermore, the life partner can provide financial resources and time investments (instrumental support) to the entrepreneur's business (Brüderl and Preisendörfer; 1998; Danes et al., 2009; Davidsson and Honig 2003; Özcan, 2011). By providing emotional and instrumental support, the life partner can increase the well-being and physical health of an entrepreneur and strengthen the entrepreneur's resilience (Danes, 2011; Israel et al. 2002). Current research indicates that self-employment often comes with a heavy workload, long working hours, uncertainty, and high stress-levels (Cardon & Patel, 2015; Dahl et al., 2010; Patzelt & Shepherd, 2011). Thus, entrepreneurship can be a lonely journey, especially as many entrepreneurs are solo self-employed, without any employees (Fernet et al., 2016; Rahim, 1996; Tetrick et al., 2000). Therefore, the assumption that life partners might be

more important for EWB than they are for wage-employees' well-being appears likely. The presence of a life partner might also be more pronounced if the individual is solo self-employed, not gaining social capital from employees. A closer investigation of these assumptions leads to the following research questions included in Chapter 2:

**RQ 1.1:** *Is a life partner more important for entrepreneurs than for the wage-employed in terms of individuals' life satisfaction?*
**RQ 1.2:** *Is a life partner less important for the life satisfaction of entrepreneurs with employees than for the life satisfaction of wage-employed individuals and solo-entrepreneurs?*

The key research questions from Chapter 3 link directly to the importance of the life partner for EWB. Chapter 3, to examine the importance of the life partner for EWB, investigates a more specific characteristic of the life partner: their professional position. Today, the amount of dual dual-earner couples is increasing and slowly outdating the traditional role allocation in households (Bureau of Labor Statistics, 2023; Smith, 2005). The occupational composition of the couple might be beneficial or problematic for work-family conflicts; in other words, crossover effects might be more enriching or conflictual depending on the couple's professional positions (Greenhaus and Powell, 2006). Research has proven that entrepreneurship has higher positive impacts on job satisfaction and a lower negative impact on leisure-time satisfaction when compared with wage-employed individuals (Binder and Coad, 2016; van der Zwan et al., 2018). Moreover, research has also shown that self-employed individuals receive more overall life satisfaction from their work domain than their leisure domain, as entrepreneurship is part of their life plan (Jaouen & Lasch, 2015; Loewe et al., 2015; Thompson et al., 1992). If research in accordance with Altobelli and Moen (2007) and Moen and Yu (2000) treats the couple as a unit of analysis, the occupational choice of entrepreneurship might result in special crossover patterns within the couple. Drawing on intra- and interindividual spill-over, crossover, and compensation arguments between the work and leisure domains and the nuanced importance of job satisfaction for the self-employed, the following research questions arise:

***RQ 2.1:*** *Does their life partner's occupation—self-employment vs. wage-employment—affect the well-being of individuals?*
***RQ 2.2:*** *Does their life partner's occupation affect different types of individuals' well-being?*

Chapter 4 shifts away from EWB but remains focused on the entrepreneur's life partner. While the two previous chapters address the life partner's impact on EWB, the focus of Chapter 4 switches to the impact of life partners and their occupations on an individual's propensity to enter entrepreneurship. Research on entrepreneurship supports the idea that life partners increase individual's propensity to become self-employed, as life partners provide social capital to the entrepreneur and their business (Caputo and Dolinsky, 1998; Özcan, 2011). Furthermore, studies have indicated that entrepreneurial life partners increase the likelihood of an individual becoming self-employed, with a stronger investigated impact for female individuals and their entrepreneurial propensity (Caputo and Dolinsky, 1998). In the last few years, as the number of hybrid entrepreneurs has increased considerably (Butkowski et al., 2022) and the number of people entering full-time self-employment out of the hybrid status has increased (Ardianti et al., 2022; Joona and Wadensjö, 2013; Reynolds, 2012), research should also be interested in the impact of life partners on HE. As HE is associated with less time commitment, a smaller number of necessary resources, and lower risk levels than full-time self-employment (Raffiee and Feng 2014), life partners may have different impacts on an individual's decision to enter entrepreneurship directly out of wage employment or indirectly out of HE. Individuals switching directly from wage employment to self-employment benefit from the direct effect of receiving "procedural utility", or the non-monetary benefits associated with self-employment, like autonomy (Block et al. 2015; Frey et al., 2004). However, they also take a greater risk directly. Research has empirically proven life partners to act as a kind of buffer and increase the likelihood of individuals entering entrepreneurship directly from wage employment (e.g., Özcan, 2011). First becoming a hybrid entrepreneur by simultaneously remaining in wage employment in one's main occupation also buffers against the perceived risk associated with

entrepreneurship by reducing fear of failure (Ferreira, 2020). Especially women, who are more risk-averse (Caliendo, Fossen, and Kritikos, 2009; Jianakopolos and Bernasek, 1998; Sexton and Bowman-Upton, 1990), might prefer this less risk-intensive path to entrepreneurship. Life partners conclusively provide social capital and reduce an individual's fear of failure in entrepreneurship through encouraging behavior (Werbel and Danes, 2010). In doing so, life partners might reduce the perceived risk associated with entrepreneurship. Regarding HE as a safer way to enter full-time entrepreneurship (Petrova 2012), the importance of a life partner and their provided social capital might be less relevant for the decision to enter entrepreneurship indirectly out of HE. Thus, the following research question arises:

***RQ 3:*** *Do life partners and their occupational choices differently affect the propensity to enter entrepreneurship directly or indirectly (via HE), and is this difference more pronounced for women?*

Studies like van der Zwan et al. (2018) or Binder and Coad's (2016) have found that a switch to full-time self-employment out of wage employment increases job-satisfaction while reducing leisure-time satisfaction. Concerning well-being in general, current research indicates that self-employed individuals, in comparison to wage-employed individuals, experience higher positive well-being but the same level of negative well-being, such as mental illness (Stephan et al., 2022). HE differs from full-time entrepreneurship in terms of time, financial resources, and risk invested in the self-employed activity (Raffiee and Feng, 2014). Chapter 5 directly examines HE and its effect on well-being. Pursuing entrepreneurial activities while still being wage-employed in one's main occupation might have different effects on well-being than a direct switch to full-time entrepreneurship. Stephan et al.'s (2022) results associate entrepreneurship with higher positive well-being and higher negative well-being. Thus, hybrid entrepreneurs might not completely benefit from the characteristics of self-employment that increase positive well-being, such as autonomy and flexibility. Nevertheless, they are not fully exposed to the characteristics that can increase mental strain caused by self-employment, as self-employment

is not the sole source of their income. Moreover, HE might create problems in time allocation between wage-employed work and self-employed activity, increasing WFC and decreasing well-being. These assumptions lead to the following research question, which is covered in Chapter 5:

***RQ 4:*** *Is individuals' well-being differently affected by an indirect way to entrepreneurship (via HE) and a direct entry to full-time entrepreneurship?*

Chapter 6 investigates context-related aspects of wage-employed individuals' well-being and transitions from EWB to employee well-being. Already introduced in the theoretical considerations of this dissertation, one of the leading approaches to investigating adverse well-being effects on employees is the ERI. While research exists on the impacts of a mismatch between effort and reward in an employee's job situation (e.g., Dragano et al., 2017; de Jonge et al., 2000; Fahlén et al., 2006; Toppinen-Tanner et al., 2002), there is little research on the antecedents of this mismatch, especially contextual antecedents. Regarding antecedents that provoke an ERI, research has shown that transformational leadership has positive impacts on the ERI, as it positively impacts the reward of employees (Weiß and Süß, 2016). Furthermore, research has shown that individuals who experience a restructuring of the organization as stressful face a negative impact on their ERI, whereas promotion positively affects the ERI of employed individuals (Tsutsumi et al., 2002). However, research has neglected further possible organizational impacts on the ERI. For instance, the size of the organization comes with corresponding levels of standardization and formalization, especially in the field of human resource management (HR; Richard et al., 2013; Sánchez-Marín et al., 2019). Moreover, when an organization grows, the specification of tasks increases and role allocation is tightened (Sadler-Smith et al., 2003). This might impact the effort level of an employee. Moreover, a more standardized HR system in larger organizations might positively affect the reward level for employees, whereas personal praise enabled by frequent direct contact with superiors or management is more common in smaller organizations. Regarding the impacts on the ERI that

might be associated with organizational size, the following research question emerges:

***RQ 5:*** *Does organizational size affect the ERI of employees?*

## 1.4 Research Publication Status

Two of the following five chapters (research studies) of this dissertation have been published in international peer-reviewed journals. The other three have been submitted to international peer-reviewed journals. All chapters are the product of a fruitful collaboration with other researchers. Table 1.1 provides an overview of the publication status details and the names of the coauthors.

***Table 1.1:*** *Publication status of the research manuscripts*

| Title | Publication status | Authors | Reference |
|---|---|---|---|
| Studies used in this dissertation | | | |
| [1] The life partner and the life satisfaction of the entrepreneur | Published in: *Central European Business Review*, 2018 | El Shoubaki, A; Stephan, M. | El Shoubaki and Stephan (2018)[2] |
| [2] Contextualizing entrepreneurial well-being: The role of life partners and their occupational situation | Under preparation for submission to: *Strategic Entrepreneurship Journal,* VHB A[3] | Stephan, M.; Lasch, F.; Werner, A.; Vossen, A.; El Shoubaki, A. | |
| [3] How do life partners and their occupational choice affect the path of transition to entrepreneurship? A comparison between direct and indirect entry into entrepreneurship | Published in: *Journal of Contextual Economics-Schmollers Jahrbuch*, 2021 | Demir, C.; Stephan, M.; Werner, A. | Demir et al. (2021)[4] |
| [4] Psychological well-being of hybrid entrepreneurs: A replication and extension using German panel data | Published in: *Journal of Business Venturing Insights,* VHB B | Stephan, M.; Demir, C.; Lasch, F.; Vossen, A.; Werner, A. | Stephan et al. (2023)[5] |
| [5] Where to find my balance? Organizational size and its impact on the effort-reward imbalance of employees | Prepared for submission to: *European Journal of Work and Organizational Psychology, VHB B* | Stephan, M.; Scholz, T.; Soost, C.; Werner, A. | |

[2] El Shoubaki, A.; Stephan, M. (2018): The Life Partner and the Life Satisfaction of the Entrepreneur. In: Central European Business Review, 7(3), 26-41. doi: 10.18267/j.cebr.201

[3] The VHB-JOURQUAL is a journal ranking of the Association Verband der Hochschullehrer für Betriebswirtschaft e.V. (VHB).

[4] Demir, C., Stephan, M., Werner, A. (2021): How Do Life Partners and Their Occupational Choice Affect the Path of Transition to Entrepreneurship? A Comparison Between Direct and Indirect Entry into Entrepreneurship. In: Journal of Contextual Economics – Schmollers Jahrbuch, 141(1-2): 47–84. https://doi.org/10.3790/schm.141.1-2.47

[5] Stephan, M., Demir, C., Lasch, F., Vossen, A., Werner, A. (2023): Psychological well-being of hybrid entrepreneurs: A replication and extension using German panel data. Journal of Business Venturing Insights. https://doi.org/10.1016/j.jbvi.2023.e00419

## 1.5 Contribution of the Dissertation Author to the Individual Chapters

**Chapter 1:** The author of this dissertation wrote this chapter independently.

**Chapter 2:** The dissertation author participated in this research paper by conceptualizing the outline of the project, conducting the empirical analysis, and writing the methodology part of it. The research paper is published in the *Central European Business Review*, 2018.

**Chapter 3:** In this chapter, the dissertation author wrote large parts of the introduction, the literature overview, and the hypothesis development. Moreover, the dissertation author co-conducted the empirical analysis and wrote the methodology section of the paper.

**Chapter 4:** The dissertation author contributed to this research article by conceptualizing the outline and composing its theoretical background and hypothesis development sections. Moreover, the dissertation author participated in the empirical analysis and formulation of the empirical results. The manuscript is published in the *Journal of Contextual Economics-Schmollers Jahrbuch*, 2021.

**Chapter 5:** The dissertation author contributed to this research article by writing parts of the introduction. Moreover, the dissertation author participated in the empirical analysis and the composition of the results. Additionally, the dissertation author contributed to the discussion of the research results.

**Chapter 6:** The dissertation author conceptualized the research outline and drafted parts of the introduction, literature overview, and hypothesis development. Moreover, the dissertation author contributed to the discussion section of the paper.

**Chapter 7:** The dissertation author composed this chapter independently.

# 2. The Life Partner and the Life Satisfaction of the Entrepreneur

Aliaa El Shoubaki • Meike Stephan

**Abstract**

The life satisfaction of entrepreneurs is a subject of increasing importance. Research shows that entrepreneurs are more satisfied with their jobs when compared to wage earners. However, it remains poorly understood how satisfied entrepreneurs are with their lives. We argue that the family can contribute largely to how individuals feel about their lives. In particular, research suggests that the life partner influences the individual's life satisfaction differently depending on their occupation (employed or self-employed). Thus, in this paper we investigate the effect of life partners on the life satisfaction of entrepreneurs. To do so, we use arguments from the family embeddedness perspective on entrepreneurship and test them using data from the 2016 cohort of the German Socio-economic Panel Study (SOEP) and regression models. We find that the life partner contributes positively to the life satisfaction of entrepreneurs and wage earners. This effect is greater for entrepreneurs without employees as compared to entrepreneurs with employees. These results contribute to the understanding of an under researched outcome of entrepreneurship which is the life satisfaction of entrepreneurs.

**Keywords**: life satisfaction, entrepreneurship, self-employment, life partner, family

**JEL Classification**: L26, I30

doi: 10.18267/j.cebr.201

## 2.1 Introduction

How satisfied individuals are with their lives is an important economic variable indicative of social progress (Andersson, 2008). Supranational organizations, such as the OECD, seek to measure socioeconomic progress with initiatives which aim to understand how individuals feel about their lives (i.e., how's life?). To everyone, being happy is a compelling idea; a feeling of life satisfaction is important for human functioning (Ryff, 2017). It has a positive effect on individuals' productivity (Lyubomirsky et al., 2005) including that of entrepreneurs (e.g., Wincent et al. 2008). Moreover, as much as policymakers are departing from traditional economic measures, with initiatives such as 'beyond GDP' (European Commission, 2016), so is research in entrepreneurship increasingly calling for novel insights beyond financial measures (Shepherd, 2015). Satisfaction with life is not a financial question, yet it is still a measure of success (Wach et al., 2016). The life satisfaction of entrepreneurs is important to better shed light on the entrepreneurial process and ultimately to help sustain the economic and social benefits of entrepreneurship. Thus, understanding what drives the life satisfaction of entrepreneurs is a crucial line of inquiry, equally interesting to policymakers, researchers, and entrepreneurs. In this present paper, we use the terms entrepreneur and self-employed interchangeably.[6]

The concept of life satisfaction is multifaceted, and work is just one aspect of it (Binder & Coad, 2013). It is noteworthy though, that work seems central to the lives of entrepreneurs (Loewe et al., 2015). There is strong evidence that entrepreneurs are more satisfied with their work when compared to employed individuals (Blanchflower, 2004; Blanchflower et al., 2001; Blanchflower & Oswald, 1998; Millán et al., 2013; van der Zwan et al., 2018); yet drivers of

[6] Many authors can consider the terms different, but you may refer to Carter (2011) to learn better about these point of views. We start the paper by presenting the theoretical arguments. Next, we disclose the methodology and the results. Lastly, we discuss the results and present our contributions.

the life satisfaction of entrepreneurs remain less clear (Dolan et al., 2008; Binder & Coad, 2016). Entrepreneurship, as a work type, can presents a trade-off (Stephan, 2018). On the one hand, being one's own boss provides greater control over the work situation through increased schedule flexibility and freedom that enable better work-life balance which in turn enhances life satisfaction (Benz & Frey, 2008; Loscocco, 1997; Parasuraman & Simmers, 2001). However, it is also associated with heavy workload and financial uncertainty leading to higher levels of stress (Dahl et al., 2010; Cardon & Patel, 2015; Patzelt & Shepherd, 2011). Self-employment can cause increased work-family conflict (Blanchflower, 2004); imbalance between the different domains of life leads to conflicts and is detrimental to the life satisfaction of individuals (Parasuraman & Simmers, 2001). The self-employed can be less satisfied with their leisure, which is one aspect of their life satisfaction (van der Zwan et al., 2018). Moreover, self-employment can affect the health of the entrepreneur and those close to him or her such as the life partner (Dahl et al., 2010). Acknowledging the complexity of the concept of life satisfaction, in this study, we adopt a socialized view of the entrepreneur and focus on their immediate social environment i.e., a family condition - the presence of a life-partner. Put simply, we will answer the question: do life-partners increase entrepreneurs' life satisfaction? To answer this question, we use arguments from the family embeddedness perspective on entrepreneurship (Aldrich & Cliff, 2003), data of some 1300 entrepreneurs from the 2016 cohort of the German Socio-economic Panel Data (SOEP), and regression models.

This study contributes to research and to practice. To research, the findings provide a nuanced view the life partner's contribution to the life satisfaction of the entrepreneur because we distinguish between different types of self-employed individuals (with and without employees) and compare them to wage earners. In practical terms, the findings can help policymakers in understanding the factors affecting how people feel about their lives. It may be particularly useful to consider the life partner in programs and policies supporting and promoting

entrepreneurship and work family balance.

## 2.2 Literature Review

### *2.2.1 Family embeddedness in entrepreneurship*

The organization of economic utility is central to the family (Becker, 1991); yet, theorizing the role of the family in the entrepreneurial process is an ongoing research challenge (Heck et al., 2008). A century ago, all businesses were family businesses but social change, especially the increase in employment, led to consider that the two social institutions are separate units, and so research treated each independently (Stafford et al., 1999). The family and the business remain two connected social institutions and treating them as such in research is a more realistic approach to studying entrepreneurship. The family embeddedness perspective on entrepreneurship addresses this issue head on (Aldrich & Cliff, 2003).

Three decades ago, the systemic approach to entrepreneurship emerged and began to consider the substantial influence that family exerts on the firm (Hollander & Elman, 1988). Aldrich and Cliff (2003) advanced the conversation on the "family embeddedness perspective" by studying entrepreneurship using a model of the interrelation among family system characteristics and venture creation processes and outcomes. Entrepreneurship research recognizes that entrepreneurs are embedded in various social relationships (Aldrich et al., 1986; Burt, 1998). Particularly, the family is the one social institution in which all entrepreneurs are embedded (Aldrich & Cliff, 2003). The family system of entrepreneurs is made of the values, attitudes, norms, behaviors, and resources shared among family members that influence the decision making of entrepreneurs (Rowe & Hong, 2000).

The concept of family, from a structural view, rests on the assumption that family is constituted of biologically and legally tied individuals (Westhead & Cowling, 1998). From a transactional view, the family is made of intimates sharing a history and a future and generating a sense of home and group identity (Westhead et al., 2002). Accordingly, the life-partner can be

considered a family member disregarding the legal bond of the relationship. Family provides social support; that is, a form of goodwill, a product of social relations and a resource to aid action (Adler & Kwon, 2002). On an aggregate level, social support seems beneficial to entrepreneurs (Stam et al., 2014).

The life partner, in particular, has a critical yet unexplored role in the life of the entrepreneur (Williams, 2012); he or she can influence the entrepreneur in non-visible ways (Gillis-Donovan & Moynihan-Bradt, 1990; Rowe & Hong, 2000). Entrepreneurs and their life partners share life goals and care for each other in different ways than with other family members (Brannon et al., 2013). And while entrepreneurship research focused on the role of the life partner in the venture, other roles are underexplored such as the wellbeing of the entrepreneur (Binder & Coad, 2016). In this paper, we attempt to answer the question: do life-partners increase entrepreneurs' life satisfaction?

*2.2.2 Life satisfaction and the life partner*

Life satisfaction is a global evaluation of the individual's state of being or happiness (Benz & Frey, 2008; Binder & Coad, 2010; Coad & Binder, 2014). It is determined by a number of factors including, but not limited to, individual characteristics (e.g., age, sex) and affect (e.g., moods and emotions); as well as environmental influences including job conditions (e.g., age, size, income) and family conditions (e.g., household income, marital status) (Clark et al., 2008; Diener, 2000; Stephan, 2018). In addition, the life satisfaction of an individual is likely to be a subjective indicator since it relies on self-assessments and reporting (Diener, 2000). Acknowledging the complexity of the concept of life satisfaction, in this study, we focus particularly on the immediate environment of the entrepreneur i.e., a family condition - the presence of a life-partner.

For wage earners, the life partner seems to have tangible influences on them. In labor economics, as "marriage surplus" refers to the benefits brought about to men consequent to

marriage, such as increased wages; for women, an opposite consequence of marriage is evidenced in the labor market i.e., "marriage deficit" (Parker, 2009). Another marriage benefit concerns health - mental and physical health is strongly and positively associated to marriage (Gove, et al., 1983; Wilson & Oswald, 2005). Also, in the case of self- employment, the life partner is important in terms of providing emotional or also instrumental support; whereby this emotional and financial cushion encourages the entrepreneur to be bolder in business (Parker, 2009; Simoes et al., 2016). Entrepreneurs and business owner-managers can have heavy workloads, and financial uncertainty, which results in financial difficulties, stress (Dahl et al., 2010; Cardon & Patel, 2015; Patzelt & Shepherd, 2011) and work-family conflicts (Blanchflower, 2004; Parasuraman & Simmers, 2001). With such circumstances, the life-partner can provide many benefits. Moreover, the life partner can be very engaged in the life of the entrepreneur to the extent of enduring stress in similar extents. For example, one study found that individuals entering entrepreneurship are more likely to take psychotropics (drugs that affect the nervous system to alter mood, perceptions, thoughts, and behaviors), when compared to individuals changing into other types of jobs, and so are their spouses when compared to other spouses whose partner is not entering entrepreneurship (Dahl et al., 2010). Empirical evidence on the life satisfaction of entrepreneurs portrays diverse results when controlling for the presence of the life partner. These findings range from non-significant effects on job satisfaction of entrepreneurs – which is one aspect of life satisfaction (e.g., Millán et al., 2013; Block & Koellinger, 2009) - to non-significant effects on life satisfaction (Coad & Binder (2014), or also positive effects (van der Zwan et al., 2018). This last study finds that being married increased the life satisfaction of both, individuals switching from self- employment to wage-employment and vice versa. Moreover, it seems that persons switching to self-employment witness a drop in satisfaction with leisure (van der Zwan et al., 2018) probably due to the increase of stressors mentioned earlier e.g., increased workload and financial instability. Given that entrepreneurship exposes the individuals to increased stressors, the

presence of a life partner becomes even more important than that with wage earners. Thus, we expect that:

*H1: The effect of a life partner on the life satisfaction of an entrepreneur without employees, as compared to a wage-earner, is positive but higher.*

The self-employed are not a homogeneous populace. The most distinct types are self- employed without employees and the self-employed with employees (Burke & Cowling, 2015). The literature suggests that they do not start from the same place. A study using a European sample shows that the self-employed with employees have higher degrees (Dvouletý, 2018; Millán et al., 2014a, 2014b), more work experience, are more likely to have working life partners (Dvouletý, 2018). Employees are resources taking a share work, which enables the self-employed to benefit from higher levels of autonomy (Binder & Coad, 2016; Coad & Binder, 2014). Employees can be compared to colleagues at work, and both can bring benefits. However, for wage earners, the colleagues can be equal to them in terms of a firm's hierarchical structure, not directly or solely subordinate to them, and possibly not an aiding resource or an impeding one. The wage earners may not easily be able to influence or change this situation whereas the self-employed are more likely to have direct control over their employees; if these later do not meet minimum performance and conduct, the self-employed can be considered to be in a position to take direct measures to change this e.g., firing them. Thus, we expect that:

*H2: The effect of a life partner on the life satisfaction of an entrepreneur with employees, as compared to a wage earner, is positive but less important.*

## 2.3 Materials and Methods

### *2.3.1 Data and sample*

To answer the research question "do life-partners increase entrepreneurs' life satisfaction?" we relied on data from the German Socio-Economic Panel Study (SOEP) conducted by the German Institute for Economic Research (DIW). The dataset includes information on a representative sample of German households regarding diverse aspects of life including household and work characteristics. About 11.000 German private households and over

20.000 members of these households are part of the panel survey. The samples of SOEP are multi-stage random samples and the participating households are chosen by random walk. The randomly chosen households are interviewed face to face based on a questionnaire that contains questions regarding different aspects of life (e.g., education, employment, health status, future plans). In the chosen households, one person is also asked to answer a questionnaire about the household itself (housing characteristics, inhabitants' characteristics, different kinds of income). For this study, we use data from the year 2016 amounting to a total observation of 1029 entrepreneurs.

*2.3.2 Variables*

Our main variables of interest are as follows: the dependent variable is the individual's life satisfaction measured with one question regarding how satisfied the individual is with life in general. The answer to the question is based on an 11-point Likert scale where one indicates the lowest levels of satisfaction and eleven the highest. While we rely primarily on this variable as a dependent variable, we run extra analyses to confirm the results using the mean of eleven domains of satisfaction. These are measured similarly to life satisfaction. Regarding independent variables, the presence of a life partner in explaining the life satisfaction of the entrepreneur is central to our paper as developed in the literature review. We created a dummy variable taking a value of one when the entrepreneur has a life partner. Other independent variables include the household income, the numbers of hours worked in the business, the perception of effort and over-commitment to work, and the number of children (Dolan et al., 2008). Household income contributes positively to life satisfaction for it provides increased financial security (Boes & Winkelmann, 2010; Coad and Binder 2014). The working hours per week are expected to negatively affect life satisfaction as the more hours spent working the less leisure and family time remains (Parasuraman et al.; 1989; van der Zwan et al., 2018). We also add the perceived effort and overcommitment, which are measures in a leading job-stress model (Siegrist et al., 2004). It is assumed that an imbalance between perceived effort and reward in

occupational life has a negative effect on life satisfaction (de Jonge et al., 2000) and so does the perceived overcommitment to work relate to life satisfaction (Siegrist et al., 2004). Children can be indicative of household responsibilities but also a source of life- satisfaction (van der Zwan et al., 2018). Some typical control variables are also included i.e., the age and the gender of the respondent and the sector of activity in which he or she is active.

***Table 2.1:*** *Description of variables*

| Variables | Description |
|---|---|
| **Dependent variable** | |
| Life satisfaction | Overall Satisfaction of the self-employed measured on an eleven level Likert scale (1= completely dissatisfied 11= completely satisfied) |
| **Independent variables** | |
| Life partner | Relationship Status of the self-employed (1= in a relationship; 0= not in a relationship) |
| **Controls** | |
| Effort | Effort Level of the self-employed measured with three items on four level Likert scale, 3= low effort level; 12= high effort level |
| Overcommitment | Level of perceived overcommitment to work by the self-employed measured with the sum of six items on four level Likert scale (4= low overcommitment, 24= high overcommitment) |
| Working hours | Level of working hours per week |
| Household Income | Level of household net income per month |
| Conflict | Conflicts with partner that weigh upon the individual (1= yes; 0= no) |
| Education | Number of years invested in education |
| Gender | Gender of the individual (1= male; 0= female) |
| Age | Age of the individual (continuous variable) |
| Children | Number of children |
| Industry | The sector in which the self-employed is active is divided into ten main categories: Agriculture, energy, manufacturing and industry, construction, trade, hospitality, transport and communication, credit and insurance, business services and social and health services (the reference group) |

*2.3.3 Sample description*

From the SOEP dataset of 2016, we selected three samples, the first with only employed individuals (6938), the second with self-employed with employees (410) and the third with solo self-employed (613). The employed sample is made of 40% males, the sample of self- employed with employees is 67% males, and the solo self-employed are 54% males. Apart from this variable, the differences in the descriptive statistics across the different categories are not extreme. 84 % of the employed and solo self-employed have a life partner, against 90% for the self-employed with employees.

***Table 2.2:*** *Descriptive statistics*

| **Variables** | **Employed** | | **Self-employed with employees** | | **Solo self-employed** | |
|---|---|---|---|---|---|---|
| | Mean | Std.Dev. | Mean | Std.Dev. | Mean | Std.Dev. |
| Life satisfaction | 8.58 | 1.48 | 8.6 | 1.58 | 8.5 | 1.6 |
| Effort | 7.63 | 2.39 | 8.1 | 2.21 | 6.6 | 2.21 |
| Overcommitment | 12.6 | 3.84 | 14.36 | 3.71 | 12.79 | 3.9 |
| Working hours (log) | 5.78 | .5 | 6.14 | .41 | 5.7 | .71 |
| Household income (log) | 8.1 | .5 | 8.36 | .64 | 8.04 | .62 |
| Conflict | .33 | .47 | .32 | .47 | .29 | .46 |
| Education | 13.27 | 2.68 | 13.94 | 3.1 | 13.7 | 2.9 |
| Gender | .41 | .49 | .67 | .47 | .54 | .5 |
| Age | 46.15 | 10.7 | 51.69 | 10.54 | 51.42 | 12.1 |
| Children | 1.56 | 1.24 | 1.77 | 1.21 | 1.62 | 1.28 |
| Life partner | .84 | .37 | .9 | .3 | .84 | .36 |
| **Industry** | | | | | | |
| Agriculture | .01 | .09 | .05 | .22 | .04 | .19 |
| Energy | .01 | .12 | .01 | .09 | .003 | .06 |
| Manufacturing and industry | .19 | .39 | .12 | .32 | .1 | .3 |
| Construction | .03 | .17 | .13 | .34 | .07 | .25 |
| Trade | .12 | .33 | .13 | .33 | .09 | .29 |
| Hospitality | .03 | .17 | .07 | .26 | .02 | .13 |
| Transport & Communication | .06 | .23 | .02 | .13 | .02 | .14 |
| Credit & Insurance | .05 | .21 | .03 | .17 | .04 | .2 |
| Business Services | .17 | .38 | .2 | .4 | .24 | .43 |
| Health and Social Services | .33 | .47 | .25 | .44 | .38 | .49 |
| **Number of observations** | **6938** | | **410** | | **613** | |

*2.3.4 Statistical procedure*

To examine the effect of the presence of the life partner on the life satisfaction of the entrepreneur, we estimate the following ordinary least square regression:

$$Y_i = \beta_2 Life\text{Partner}_i + \alpha' \boldsymbol{X_i} + \varepsilon_i$$

Where the dependent variable is the satisfaction level of the entrepreneur *i*, vector $\boldsymbol{X_i}$ includes all the other independent and control variables described above and the constant term, and $\varepsilon_i$ is the standard error term. The interpretation of the coefficients reads as follows: the effect of the presence of a life partner will be captured by $\beta$. For robustness check, we run other models using other dependent variables. The results of these extra analyses support the current results.

**2.4 Results**

Table 2.3 exhibits the results of the regression models. Most importantly, regarding the life-partner, we find a significant positive effect for the presence of a life-partner on the life satisfaction of the individual, where he or she is employed, self-employed with or without employees. The results do not support our hypotheses but most importantly there is significant and positive effect of the presence of the life partner. This effect is stronger for solo self-employed than for self-employed with employees. In addition, conflict with the life partner shows significant and negative effects across all types of employments, but this effect is particularly strong for the self-employed with employees. The negative effect of conflict does diminish from the positive effect the presence of a life partner, and the two variables do not exhibit collinearity.

Besides, the income of the household has a positive effect across all types of employments but particularly strong for the solo self-employed. The entrepreneur's age and perceived overcommitment to work have a negative effect on the life satisfaction of the respondents across all types of employment. The rest of the variables bare inconsistent effects across the different types of employments. Effort and working hours have negative effects almost only on

the employed. Especially the industries, many of which are significant and negative for the employed.

***Table 2.3:*** *Regression results*

| **Variables** | **Employed** | | **Self-employed with employees** | | **Solo-Self-employed** | |
|---|---|---|---|---|---|---|
| | **Coef.** | **Std. error** | **Coef.** | **Stderror** | **Coef.** | **Std. error** |
| Effort | -.022** | .009 | .070* | .041 | -.005 | .040 |
| Overcommitment | -.072*** | .006 | -.122*** | .032 | -.077*** | .021 |
| Working Hours | .153*** | .042 | .185 | .266 | .138 | .095 |
| Household income | .410*** | .042 | .247* | .135 | .726*** | .110 |
| Conflict | -.305*** | .037 | -.836*** | .175 | -.303** | .137 |
| Education | .017** | .007 | .029 | .026 | -.034 | .024 |
| Gender | -.012 | .039 | .026 | .182 | -.242* | .140 |
| Age | -.016*** | .002 | -.021*** | .007 | -.017*** | .005 |
| Children | .013 | .016 | -.027 | .061 | .007 | .052 |
| Life partner | .523*** | .059 | .489** | .247 | .508** | .207 |
| **Industry** | | | | | | |
| Agriculture | -.031 | .222 | -.415 | .451 | -.426 | .381 |
| Energy | -.528*** | .158 | 1.098** | .560 | -.575*** | .215 |
| Manufacturing and industry | -.130** | .050 | .093 | .273 | -.189 | .215 |
| Construction | -.034 | .098 | .347 | .284 | -.110 | .295 |
| Trade | -.163** | .060 | .020 | .282 | -.230 | .229 |
| Hospitality | .049 | .110 | -.079 | .376 | -.625 | .461 |
| Transport & communication | -.342*** | .079 | -.078 | .268 | -.440 | .363 |
| Credit & Insurance | .046 | .077 | .081 | .406 | -.339 | .306 |
| Business Services | -.172*** | .050 | .154 | .236 | -.206 | .167 |
| Constant | 5.710 | .357 | 7.069 | 1.948 | 4.195 | .924 |
| N | 6938 | | 410 | | 613 | |
| F | 35.75*** | | 3.90*** | | 1.38*** | |
| R2 | .102 | | .1598 | | .1725 | |

Note: *** p <.01, ** p < .05, * p < .10

## 2.5 Discussion and Conclusion

This study examined the effect of the presence of the life partner on the life satisfaction of entrepreneurs. Prior research on life satisfaction of entrepreneurs focused on job satisfaction. There is established evidence that self-employed individuals are more satisfied with their jobs than wage earners (van der Zwan et al., 2018; Blanchflower, 2004, 2000; Blanchflower et al., 2001). However, there is more to life satisfaction than job satisfaction and we still know little about it (Stephan, 2018; Dolan et al., 2008). This study addresses this gap in the literature while focusing on the family embeddedness, particularly, the effect of the life-partner.

To do so, we relied on regression models and a German dataset (SOEP) using data of self-employed and employed (as a reference group) individuals including individual-, household- and firm-level variables. We argued that entrepreneurs are embedded in families and through this embeddedness they receive social support (Aldrich & Cliff, 2003). Particularly, the life partner is a critical person in the entrepreneur's life (Williams, 2012). He or she influences the entrepreneur in non-visible ways (Gillis-Donovan & Moynihan-Bradt, 1990; Bird & Zellweger, 2018). Moreover, couples share life goals and care for each other in different ways than they do with other family members (Brannon et al., 2013; Bird & Zellweger, 2018). The findings of our study mainly show that having a life partner positively affects the life satisfaction of the entrepreneur, even in the event of conflicts. This effect is not particular to entrepreneurs as compared to wage earners. Still, some new evidence is brought to light.

Prior studies did not focus on the relationship status of the entrepreneur per se when studying the life satisfaction of entrepreneurs. However, when contrasted to the most comparable studies, our results align with some extant findings (e.g., van der Zwan et al., 2018) but not with the rest of studies that examined life satisfaction of the entrepreneur (Coad & Binder, 2014) or some domain of life satisfaction such as job satisfaction (e.g., Millán et al., 2013; Block & Koellinger,

2009). While the different results regarding the studies focusing on work satisfaction can be due to measuring a very specific domain of satisfaction, the results concerning life satisfaction are less evident – perhaps the diverging findings are due to the different testing methods and variables. Regarding the convergent results, in their study, examining how individuals feel about their life when they switch from wage-employment to self-employment and vice versa, van der Zwan et al. (2018) find that being married increased life satisfaction in all cases. Our results are also in accordance with research on employees concluding that marital status is a strong predictor of wellbeing (Gove et al., 1983; Wilson & Oswald, 2005) and the logics of "marriage surplus" (Parker, 2009). However, we extend extant literature by providing evidence for the self-employed (with and without employees) by comparing them to wage earners. The effect on the self-employed with employees is the smallest probably because having more employees to rely on can be comforting for the entrepreneur and increases their autonomy (Binder & Coad, 2016; Coad & Binder, 2014)

Additionally, our results show that despite the presence of conflicts between the life partners, which bares negative effects of the life satisfaction of both the entrepreneurs and wage earners, the effect of the presence of a life partner is still positive. This is probably because a life partner can be a source of financial, material and emotional support (Simoes et al., 2016). Also linked to the life partner, our results show the positive effect of the household income. The household income most likely includes the income of the life partner and thereby, represents the financial support of the life partner (Fletcher, 2010).

Regarding the rest of variables, overcommitment negatively affects the different categories of employment aligned with previous results (de Jonge et al., 2000). However, we find that the employees stand out from the self-employed regarding the negative effect of their perception of effort and working hours on their life satisfaction. This probably aligns with the findings that self-employed are more satisfied with their work (e.g., van der Zwan et al., 2018). We also

found that age bares a negative effect on life satisfaction, which is a common observation in the literature (Witt et al., 1980; Gerdtham and Johannesson, 2001). As such, our study contributes to research on life satisfaction and to family embeddedness in entrepreneurship. Regarding the literature on life satisfaction, we provide evidence that the presence of the life partner increases the life satisfaction of entrepreneurs even in the event of conflict. To deepen the understanding of this finding, we invite future research to look into the processes involved in the social support provided by the life partner. For example, the way the life partners make decisions such as in distributing tasks in the household and outside. It is also noteworthy to examine the nuances in the processes, as in between cohabiting and married couples. Another line of investigation can be looking into the links between the different types of satisfaction (e.g., health, job, family, social life). Concerning the literature on family embeddedness in entrepreneurship, we demonstrate that family matters to the life satisfaction of entrepreneurs and employees similarly. If research is criticizing entrepreneurship for its failed financial promises (Shepherd, 2015), acknowledging the omnipresent role of the family and examining outcomes such as life satisfaction is then more urgent than ever. Practical contributions pertain to policymakers. Supranational organizations such as OECD are increasingly interested in understanding the determinants of life satisfaction, and they are traditionally and continuously interested in promoting entrepreneurship (Wong et al., 2005). Thus, our results are useful to policymakers in designing programs that are better fit to entrepreneurs, precisely, programs that take into account the life partner. Clearly, entrepreneurs are embedded in their social network and their families. Our results provide evidence that the life partner, in particular, is crucial to the entrepreneur just as it is to the employee.

This study is also subject to a number of limitations. The results are to be taken with caution; causality and generalizability are not inferred. First, this study uses cross-sectional data; thus we only capture a static view of the influence of the life partner on the life satisfaction of the entrepreneur. Future studies are encouraged to test the question

longitudinally. Second, the data represents only German households, which may have specificities. This way, the results are not generalizable. However, noteworthy is that extant empirical evidence draws largely from the same German dataset (SOEP) (e.g., van der Zwan et al., 2018; Coad & Binder, 2014; Block & Koellinger, 2009). Third, the measures of life satisfaction are subjective self-reports. Perhaps adding reports from other parties (e.g., the life partner or close friends) or also from observations could yield stronger findings. Unlike extant findings, we find no effect of children, no effect of education on the self-employed.

# 3. Contextualizing Entrepreneurial Well-being: The Role of Life Partners and their Occupational Situation

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**Abstract**

Little is known about the contextual factors affecting entrepreneurs' well-being. Grounding our analysis in spillover and compensation theory, and in combination with arguments drawn from the work-family conflict/enrichment perspective, we argue that the occupation of a cohabitating life partner will affect an entrepreneur's well-being. We find (i) positive spillovers between self-employed partners within the work domain (job satisfaction) and (ii) negative spillovers within the non-work domain (leisure satisfaction). A self-employed life partner both reduces the leisure satisfaction and increases the job satisfaction of an entrepreneur. Based on this, we also provide (iii) evidence for a compensating effect across these two domains triggered by the occupational situation of the life partner. Interestingly, our results show that self-employed individuals with self-employed partners (scoring higher on job and lower on leisure satisfaction) compared to wage-employed individuals with wage-employed partners (scoring lower on job and higher on leisure satisfaction) do not differ in overall life satisfaction. However, those living together with life partners in a different occupation score lower on life satisfaction than those with life partners in the same occupation. We tested our hypotheses with rich longitudinal data (133,268 observations) from between the years 1992 to 2018, contributing to research by providing the first evidence that households' occupational composition is an important contextual antecedent affecting an entrepreneur's well-being.

**Keywords:** Entrepreneurship; Well-being; Social context; Life partner; Occupational Situation

**JEL:** E24; I31; D1; D13; L26

## 3.1 Introduction

*"One of the most critical (and most unsung) roles in an entrepreneurial company is not the founder or owner – it's the role of that person's significant other or spouse"* (Williams, 2012, p. 1).

Individual well-being is essential for optimal human functioning (Ryan and Deci, 2001; Ryff, 2017). However, even though the social sciences have for years studied individual well-being, the well-being of entrepreneurs has only recently started to receive more attention in entrepreneurship research (Stephan, 2018; Wiklund et al., 2019). While the well-being of entrepreneurs complements financial performance measures with non-pecuniary entrepreneurial goals (Shepherd, 2015), entrepreneurial well-being is much more than just customary complementary financial performance indicators. For example, entrepreneurial well-being represents the opposite of entrepreneurial ill-being, which in turn can lead to an involuntary cessation of business operations (Williamson et al., 2021; Stephan, 2018). Moreover, entrepreneurial well-being can foster entrepreneurial creativity, innovation, and productivity (Williamson et al., 2019; Wach et al., 2020; 2021).

Despite the recent progress regarding the antecedents and consequences of entrepreneurial well-being, we still know very little about the effects of social context on well-being (Wiklund et al., 2019; Stephan, 2018). This is somewhat surprising considering how the literature emphasizes that entrepreneurship takes place within intertwined contexts that shape, augment, and constrain entrepreneurial activities (e.g., Welter, 2011). We know for example that entrepreneurs often feel lonely and socially excluded because they have fewer social support options related to their workplace, which may inhibit their well-being (Fernet et al., 2016; Rahim, 1996; Tetrick et al., 2000). However, while research has also noted the importance of an entrepreneur's family, entrepreneurship research has not placed family influences at the core of their inquiries (Welter, 2011; Carter et al., 2017). Consequently, although the family embeddedness perspective on entrepreneurship has been touched upon

(Aldrich and Cliff, 2003), the family and its diverse constellations remain insufficiently distinguished and under-researched (Jaskiewicz and Dyer, 2017) – entrepreneurial well-being research literature being no exception (Stephan, 2018; Brannon et al., 2013; Jennings et al., 2013; Kim and Sherraden, 2014).

This comes as somewhat of a surprise because most new entrepreneurs build upon trusted relations and draw resources from their immediate surroundings (Aldrich & Kim, 2007; Chen, 2011; Kim & Aldrich, 2005; Semrau & Werner, 2014). However, the influence of "significant others" (Williams, 2012, p. 1) or "invisible actors" (Cruz et al., 2019) is not fully understood (Brannon et al., 2013; Howorth et al., 2010). For example, it is still unclear how life partners affect entrepreneurship (Jennings et al., 2013), and entrepreneurial well-being (Wiklund et al., 2019; Stephan, 2018).

The present article intends to fill this gap by focusing on the cohabiting life partners of entrepreneurs. Entrepreneurs and their life partners possess a distinct relationship because they share life goals and a household (Brannon et al., 2013). In addition, life partners are unique family members because they are deliberately selected, as opposed to family members related by blood (Brannon et al., 2013). Even though some entrepreneurship studies incorporate the life partner element when examining financial business outcomes (El Shoubaki and Stephan, 2018), insufficient attention has been paid to the question of whether and how cohabiting life partners relate to entrepreneurial well-being.

The foundation of our analysis is the framework we build that integrates compensation, spillover, and work-family conflict/enrichment theory. Based on this framework, we analyze the conditions under which the occupational situation of the life partner relates to entrepreneurial well-being.

In line with prior research, we find that self-employed individuals have both higher job and lower leisure satisfaction than wage-employed individuals. Based on these results, we then argue that a spillover relationship exists between entrepreneurs and their life partners. Because

the individual perceptions of these two spheres are similar for both, entrepreneurs with self-employed life partners will experience higher job satisfaction (positive spillover) and lower leisure satisfaction (negative spillover) than their counterparts with wage-employed life partners. However, along with the spillover effects between partners, we expect a compensation effect between both domains (i.e., job and leisure satisfaction) triggered by the occupational situation of their life partners. Consistent with this line of thought and based on prior research findings that job satisfaction is more important than leisure satisfaction for overall life satisfaction (Stephan, 2018; Parasuraman and Simmers, 2001; Binder and Coad, 2016; Johansson et al., 2016), we expect that entrepreneurs with self-employed life partners have higher overall life satisfaction than those with wage-employed life partners.

In the empirical analysis, we tested our hypotheses by drawing on longitudinal data from the German Socio-Economic Panel (GSOEP) from between the years 1992 to 2018. We specifically ran longitudinal modeling with fixed effect regressions, including 11,827 observations of self-employed individuals (3,052 unique self-employed individuals) with cohabiting life partners, and 121,441 observations of wage-employed individuals (22,772 unique self-employed individuals) and their respective life partners. The results of this study provide strong empirical evidence that entrepreneurial well-being is strongly related to the specific occupation of a life partner. Put differently, in line with our hypotheses, we can show that while entrepreneurs with self-employed life partners have higher job and lower leisure (family) satisfaction (spillover theory and work-family enrichment), they experience higher overall life satisfaction (compensation theory) than entrepreneurs with life partners in wage-employment, all things being otherwise equal.

The contributions of this study are as follows. On the one hand, while entrepreneurial well-being research continues to develop, little is known about the effects of social context in relation to specific family conditions, and particularly the role of life partners (Stephan et al., 2022). We address and contribute to an important gap in this growing research field by

examining the occupational situation of life partners. While there is some research on entrepreneurial well-being that focuses on the consequences of entrepreneurial well-being for others (e.g., the family/life partner; Stephan, 2018; Gorgievski-Duijvesteijn et al., 2000; Wirback et al., 2014; Gudmundsson, 2013), insufficient attention has been paid to the relationship between the occupational situation of the life partner and the well-being of the entrepreneurs (contextualized view). By investigating the effect of the life partner's occupation in relationship to previously studied context characteristics (e.g., business climate, economic recession, market competition, lack of societal regard for entrepreneurs, reaction to shocks (Stephan; 2018; Wiklund et al., 2019), we consider and explore the family and the life partner as new context factors in entrepreneurial well-being research.

We furthermore add to theoretical knowledge by linking established work-family compensation, spillover, and enrichment theory to the field of entrepreneurial well-being. Doing this, our research helps to improve the understanding of the ways in which a life partner contributes to the entrepreneurial process, such as by providing and transferring knowledge and complementary human resources. Moreover, studying how the life partner's occupation can foster entrepreneurial well-being is relevant to policymaking for several reasons. For example, revealing a life partner as a valuable resource for the own venture can enhance the acquisition of external resources because the life partner's abilities and occupation might serve as positive signals, decreasing information asymmetries and uncertainty regarding access to finance (Backes-Gellner and Werner, 2007).

The rest of the paper is structured as follows. First, we explain the theoretical framework, discuss the relevant body of research, and derive our hypotheses; then, we describe the method and present our empirical results. Subsequently, we discuss our theoretical and practical implications, present ideas for future research. Finally, we draw attention to some limitations of our study.

## 3.2 Theoretical Background and Hypotheses

### *3.2.1 Entrepreneurial well-being and occupational choice*

Well-being refers to an individual's experience of a fully functioning life (Wiklund et al., 2019), mental health (Stephan, 2018; Torrès and Thurik, 2019), happiness (Benz and Frey, 2008b; Binder and Coad, 2010; Coad and Binder, 2014), or satisfaction with life (Diener, 1984; Kibler et al., 2019). The well-being of working people is a crucial societal indicator, because individuals who feel good about their lives are healthier (Cardon and Patel, 2015) and more productive (Hobfoll, 2001; Carree and Verheul, 2012). In the context of entrepreneurship, well-being shields from the negative personal, social, and economic consequences of entrepreneurial stressors such as mental health issues or feelings of distress (Stephan et al., 2022; Stephan, 2018; Bort et al., 2020) and burnout (Lechat and Torrès, 2017; Fernet et al., 2016; Palmer et al., 2021), all of which can induce entrepreneurs to involuntarily abandon their self-employment occupations.

Entrepreneurial well-being encompasses a hedonic and eudaimonic perspective (Wiklund et al. 2019; Shir and Ryff, 2021; Ryff, 2019). The hedonic approach addresses the mental state or cognitive "from the head" way of evaluating one's own life satisfaction and the entirety of emotions and moods, or put simply, the "from the heart" component (Andrews and McKennell, 1980: 127). Eudaimonic well-being describes the striving for and perception that one's own life is meaningful and provides room for the realization of one's own values and ideals (Ryff, 2019). Although opponents and proponents of each of the two well-being approaches can be found in research literature, several studies also suggest that well-being should be regarded as a multidimensional term incorporating both the hedonic and eudaimonic perspectives (Ryan and Deci, 2001).

Entrepreneurial well-being is a strongly expanding stream of research focusing on the well-being of entrepreneurs. It considers them as a special group of working people warranting separate study (Stephan, 2018). As a self-organizing process with higher levels of autonomy

and self-identification with one's own job, but also higher levels of stress, responsibility, and uncertainty compared to what wage-employed individuals face, entrepreneurship is naturally related to individual well-being in both positive and negative ways (Shir, 2015; Shir et al., 2019; Wiklund et al., 2019; Stephan et al., 2022). On the one hand, entrepreneurship can be rewarding and fulfilling, improving individual well-being, and providing a cushion for negative effects (Solomon et al., 2022). On the other hand, entrepreneurs are exposed to specific entrepreneurial stressors which can diminish their well-being (Stephan et al., 2022; Wach et al., 2021; Wiklund et al., 2019; Williamson et al., 2021).

For instance, it is more difficult for the self-employed to mentally detach themselves from work compared to waged employees, which may lead to negative consequences affecting health and productivity such as reduced sleep (Williamson et al., 2019). These ideas have triggered recent research on the critical role of recovery mechanisms to prevent entrepreneurial ill-being (Williamson et al., 2021; Wach et al., 2021). In addition, entrepreneurs are exposed to uncertain revenue/income after switching from wage-employment, causing more stress and entrepreneurial ill-being (Carter, 2011).

However, in spite of more stressful working conditions and uncertainty, longer working hours (Wach et al., 2021; Ramón-Llorens et al., 2016), and typically lower average earnings (Wach et al., 2020; Binder and Coad, 2013), the self-employed report consistently higher levels of well-being than waged employees, particularly with regard to their perceived job satisfaction (Binder and Coad, 2016; Parasuraman et al., 1996; Parasuraman and Simmers, 2001; Stephan, 2018; Stephan et al., 2022). In other words, self-employed individuals are said to experience high (job-related) well-being regardless of their specific work-related stressors (Wach et al. 2021; Loewe et al., 2015). Moreover, applying a challenge-hindrance perspective on this phenomenon, Wach et al. (2021) argue that even cognitive demands (challenge stressors) can lead to a positive effect on well-being, while emotional demands (hindrance stressors) are negatively related to entrepreneurial well-being.

The self-employed not only strive to meet financial goals by performing their job; they also value and focus on personal fulfillment and health in goal identification (Wach et al., 2020; Parasuraman and Simmers, 2001; Parasuraman et al., 1996). Compared to waged employees, entrepreneurs more strongly realize their own individual values, self-concept, and vision by defining and implementing entrepreneurial goals (Shir and Ryff, 2021). In doing so, they attain higher positive well-being grounded in strong levels of autonomy, independence, work schedule flexibility, and control (Berglund et al., 2015; Blanchflower, 2004; Blanchflower et al., 2001; Millán et al., 2013; Ramón-Llorens et al., 2016; van der Zwan et al., 2018; Benz and Frey, 2008a; Binder and Coad, 2016).

Consequently, it can be observed that self-employed individuals in particular draw more rewards from their specific job conditions and, as a result, report better mental health and higher levels of well-being than waged employees do (Stephan, 2018; Nikolova, 2019; Hessels et al., 2017). Based on this, Stephan et al. (2020) can show that individuals with higher mental health are more likely to self-select into self-employment, resulting in (at least) short-term health and well-being benefits. Consequently, switching from wage- to self-employment has been shown to be related to higher perceived job quality (Shu et al., 2022) and better health (Nikolova, 2019), while the exit from self-employment leads to the opposite (Nikolova et al., 2021). In line with these results, van der Zwan et al. (2018) find well-being effects for choosing entrepreneurship, with an increase in job satisfaction, albeit a decrease in leisure satisfaction, and no significant change in life satisfaction.

On an aggregate level, and in line with these arguments, recent national GEM data also shows that compared to employed individuals, entrepreneurs report higher levels of perceived health, even during e.g. the height of the Covid-19 crisis (Messeghem et al., 2022). In line with this, Torrès et al. (2021) show that during lockdown periods, entrepreneurs were more concerned about the effect of the crisis on their business than on their own physical health.

Based on the results from prior literature, we can conclude that working conditions differ

between occupational situations, resulting in different effects on the well-being of individuals. Prior research has specifically suggested that entrepreneurs score higher in work-related satisfaction indicators, and lower in non-work-related satisfaction indicators than wage-employed individuals (Stephan, 2018; Binder and Coad, 2016), while both differ to a lesser degree in terms of life satisfaction (Stephan et al., 2022; van der Zwan et al., 2018; Berglund et al., 2015).

### *3.2.2 The interplay of work and family on entrepreneurial well-being*

Research on entrepreneurial well-being calls for studies adopting a contextualized view of its antecedents and consequences such as social context factors (Stephan, 2018; Stephan et al., 2020a; 2022). This stream of literature has only recently begun to recognize context factors as a research object, and we still know only little about the effects of social context on well-being (Wiklund et al., 2019).

From a contextual perspective, well-being arises from the interaction and spillovers of several more granular domains or spheres of one's life such as family, household, job, and leisure (Bowling et al., 2010; van Praag et al., 2003). The effect of the domain "job" on well-being is said to be particularly important in light of how committed individual are to the domain work (Thompson et al., 1992). Importantly, for entrepreneurs, job satisfaction is said to be more important than for the wage-employed, and has been shown to have stronger effects on life, family, and leisure satisfaction because self-employed individuals are argued as experiencing work as the most central role in their lives (Thompson, et al., 1992; Loewe et al., 2015), with entrepreneurship being an integral part of their life plan (Jaouen and Lasch, 2015). However, while prior research acknowledges the importance of the family in the context of entrepreneurship, it has yet to place family influences at the core of their inquiries (Welter, 2011; Carter et al., 2017). As a result, although the family embeddedness perspective on entrepreneurship has received some attention (Aldrich and Cliff, 2003), the consideration of the family context in entrepreneurial well-being research to date remains new and under-explored.

Accordingly, the family and its diverse constellations are insufficiently distinguished and under-researched in entrepreneurial well-being literature (Jaskiewicz and Dyer, 2017; Stephan, 2018; Brannon et al., 2013; Jennings et al., 2013; Kim and Sherraden, 2014).

Work and family domains affect one another, and the literature on work-family interplay and related negative or positive spillovers or compensation effects between these domains and their impact on the well-being of individuals is vast. However, this body of work has mainly focused on employed individuals, with the self-employment work-family interplay and related negative/positive spillovers or compensation effects remaining far less understood (Parasuraman and Simmers, 2001). This comes as somewhat of a surprise, because as noted, self-employment places more strain on families than other occupational situations (Danes, 2015).

Earlier literature has acknowledged that work and family experiences affect one another, leading to the emergence of several theoretical perspectives in investigating the intersection of work and family lives, the most prominent models being the compensation and spillover theory (Champoux, 1978; Staines, 1980; Evans and Bartolomé, 1984), and the work-family enrichment perspective (Greenhaus and Powell, 2006; Greenhaus and Beutell, 1985).

Compensation theory suggests an inverse association between the work and the non-work sphere, providing arguments for trade-offs between these domains. Individuals are said to make different investments in work and family life and compensate for deficiencies in satisfaction in one domain by accumulating a satisfaction surplus in another (Champoux, 1978; Staines, 1980). For example, and in line with this framework, work life that is not experienced as fulfilling will be compensated for by investments in the family and leisure domain, and vice versa (Champoux, 1978; Staines, 1980). Consequently, when individuals face little flexibility and freedom at work, they can compensate for this with a more flexible and self-determined approach to the non-work domain (Staines, 1980). Early compensation literature focused on workers with low qualifications doing simple tasks who compensated for their low job

satisfaction with higher non-work investments. Evidently, this group considers their job as a dominant constraint over which they have less control compared to their family life domain (Staines, 1980; Higgins et al., 1992).

Spillover theory posits that individuals can experience positive spillovers between domains or negative spillovers between the work and non-work spheres. This approach asserts similarity between individually perceived experiences at work and non-work, arguing for example that experiences in the job are carried over into the family sphere (Staines, 1980). Focusing on positive spillovers, prior research has pointed out that the work-family enrichment theory is related to spillover theory. In both perspectives, perceived experiences in one domain result in an additive or enriching accumulation in the other, producing positive outcomes for individual wellbeing (Greenhaus and Powell, 2006).

Furthermore, the fulfillment of several roles can act as a buffer against distress in one of the roles (Greenhaus and Powell, 2006); this positive spillover between life domains is regarded as bidirectional because it encompasses both the work-to-family and the family-to-work interface (Greenhaus and Powell, 2006). With respect to the self-employed and the arguments discussed in the previous section (i.e., that self-employment is associated with high levels of autonomy, independence, and control), and based on spillover theory, positive spillovers from work to family life would be expected here.

However, viewed negatively through the work-family interplay lens, every individual is endowed with the limited resources of time, money, and energy, which can trigger work-family conflicts (Rothbard, 2001). As opposed to the family enrichment perspective in which role accumulation is the main driver of positive spillovers between domains, the work-family perspective is focused on the restriction of psychological and physical resources, leading to role conflicts (Greenhaus and Beutell, 1985; Rothbard, 2001; Michel et al., 2010). In line with the work-family perspective, for example, investing time in the domain of work is done at the expense of time invested in family life and leisure (Rothbard, 2001). Within the framework of

work-family conflict literature, longer working hours trigger time-based conflict that results in difficulties to meet both work and family obligations (Jennings and McDougald, 2007), resulting in negative spillovers between these domains.

For self-employment, it can therefore be argued that when work and family demands compete, the resulting conflicts may reduce entrepreneurial well-being (Jennings and McDougald, 2007). However, self-employment is often associated with characteristics that can hedge against work-to-family conflict such as work schedule flexibility and autonomy (Parasuraman and Simmers, 2001; Schjoedt, 2009). In line with the enrichment perspective, the involvement in different roles can therefore also increase self-esteem, satisfaction, and positive emotional response to the respective role (Rothbard, 2001), thereby mitigating the negative effects of role conflict on entrepreneurial well-being and resulting in positive spillovers between the work and non-work domains.

### *3.2.3 Entrepreneurial well-being and the life partner*

Family members are potential social resources providing entrepreneurs with instrumental and emotional support (Adler and Kwon, 2002) which can buffer against the negative effects of entrepreneurial well-being stressors. From the family embeddedness perspective, business and family spheres are interrelated, the family influences the entrepreneur and the entrepreneurial process. On the one hand, family members can provide valuable resources for entrepreneurial well-being, while on the other, family members themselves are influenced by the well-being of the self-employed (Aldrich and Cliff, 2003; Turnalar-Çetinkaya and İslamoğlu, 2022).

A considerable body of literature has analyzed the work-family interplay (Greenhaus and Parasuraman, 1999; Greenhaus and Powell, 2006). However, as noted above, most of this research focuses on individual outcomes of life and job satisfaction conducted on the individual level of analysis (Altobelli and Moen, 2007). Despite the fact that dual-earner or dual-career families represent an increasing proportion of the working population (Hammer et al., 1997;

Higgins et al., 1992; Greenhaus et al., 1989; Parasuraman et al., 1992), share the same household, share common goals and, as a rule, decide together about the work-family interface (Brannon et al., 2013; Wierda-Boer et al., 2009), only a few of these studies have used the couple as a unit of analysis (e.g., El Shoubaki and Stephan, 2018; Hammer et al., 1997; Greenhaus et al., 1989; Parasuraman et al., 1992). Put differently, while entrepreneurship research has investigated the effect of the social context on new venture creation, it has been relatively silent with regard to spousal relationships (Danes, 2015).

As a result, we follow Altobelli and Moen (2007), proposing that the household unit of analysis is particularly appropriate for studying the work-family interplay because individual level models might have difficulty capturing the positive and negative effects on well-being in dual-earner households. We specifically focus on one of the most important family members commonly involved in the entrepreneurial process: the life partner (De Bruin and Lewis, 2004; Dyer et al., 2012; Fletcher, 2010; Muske and Fitzgerald, 2006; Ruef, 2002). While it is established that the work-family interplay affects entrepreneurial well-being (Abreu et al., 2019; Nguyen and Sawang, 2016), research focusing on how life partners may influence an entrepreneur's well-being has been largely neglected (Hamilton, 2006; Howorth et al., 2010; Cruz et al., 2019; Wiklund et al., 2019; Stephan, 2018; Ryff, 2019).

Regarding whether and how life partners affect general well-being, research in labor economics shows that marriage improves mental health and well-being (Blekesaune, 2018; Chapman and Guven, 2016; Haring-Hidore et al., 1985; Gove, et al., 1983; Wilson and Oswald, 2005). A life partner who supports the partner's career increases marital satisfaction (Epstein, 1971; Rapoport and Rapoport, 1979; Reinhart, 1984). Literature also reports that instrumental and emotional support from life partners lead to an increase in business survival, better sales, and employment growth for self-employed (Brüderl and Preisendörfer, 1998). As such, strong family relationships provide a valuable resource that is said to mitigate the harmful liability of newness of businesses (Danes et al., 2009) because life partners dedicate personal, time, and

psychological resources to the firm (Aldrich and Kim, 2007; Martini and Bellavitis, 2014; Ruef et al., 2003; Sraer and Thesmar, 2007). Life partners are close, trusted persons for entrepreneurs, and a unique family member a life partner chooses, as opposed to other family members (Brannon et al., 2013). Positive effects of life partners are triggered by knowledge spillovers, whereby life partners exchange useful information and benefit from each other and their entrepreneurial experiences and networks (Özcan, 2011). Nonetheless, existing research on life partners' influence on entrepreneurship leaves much to be desired (Binder and Coad, 2016; Hatak and Zhou, 2021), and little is known about the relationship between life partners and entrepreneurial well-being. In the literature, we find little empirical evidence and mixed or inconclusive results regarding the question about how life partners affect the life and job satisfaction of the entrepreneur (Coad and Binder, 2014; Millán et al., 2013; Block and Koellinger, 2009).

In sum, we can state that entrepreneurial well-being literature is expanding and has created a vast amount of knowledge, even while more contextualized approaches are needed for a better understanding regarding what affects the well-being of the self-employed in both positive and negative ways (Welter, 2011; Wiklund et al., 2019). Moreover, to date, inconclusive findings on the relationship(s) between occupational situation and well-being prevails (Stephan et al., 2020a). As the consideration of the family context is rather new in entrepreneurial well-being research, only a few studies focus on the consequences of entrepreneurial well-being for others (Stephan, 2018; Gorgievski-Duijvesteijn et al., 2000; Wirback et al., 2014; Gudmundsson, 2013). The occupational situation of the life partner and its consequences for the well-being of entrepreneurs has so far essentially been neglected by research literature. Drawing on the couple as the unit of analysis, we focus our work on the influence of the family context, and specifically the occupational situation of the life partner on the well-being of self-employed individuals.

Whether life partners affect the well-being of individuals, and the occupational

conditions under which life partners affect different types of well-being, are fundamental questions for discussions interested in better understanding contextualized entrepreneurial well-being. This leads us to the formulation of the following research question: *Does the occupation of a life partner (self-employment vs. wage-employment) affect the well-being of individuals?* Refining this research question further, we acknowledge that cost and benefit effects on well-being depend not only on the social context, but the domains of well-being under investigation as well (Stephan, 2018; Stephan et al., 2022). With this in mind, we draw the attention of our study to two domain-specific indicators (job satisfaction and leisure satisfaction) and a general indicator of well-being (life satisfaction) to address our second research question: *Does the occupation of a life partner affect different types of an individual's well-being?*

### *3.2.4 Hypotheses development*

As noted above, a limitation of earlier research to work-family spillover and well-being was that this literature primarily examined wage-employed individuals, most of who were working in large firms. Moreover, this body of work often focused on gender differences and coping strategies to reduce work-family conflict (Parasuraman et al., 1989; Rothbard, 2001; Ferguson et al., 2015; Altobelli and Moen, 2007; Danes, 2015; Sirgy et al., 2020; Parasuraman et al., 1992; Wallace, 1999). Consequently, concentrating on individuals in multiple roles, the work-family literature mostly employed a conflict perspective and predicted more negative than positive effects on life quality and subjective well-being (Greenhaus and Powell, 2006). In this strand of research, work-family relationships among the self-employed received far less attention (Loscocco, 1997; Parasuraman and Simmers, 2001), and little is known about work-family linkages and their effects on well-being in the self-employed context as a result.

More recently, an expanding stream of literature has evolved that recognizes the growing importance of dual-earner or dual-career couples in the workforce (Greenhaus and Powell, 2006; Rothbard, 2001; Greenhaus et al., 1989; Wierda-Boer et al., 2009). This body of work investigates the effects of the occupational situation on the couple level of analysis,

heavily drawing on the enrichment and depletion perspective. Reviewing depletion and enrichment arguments of work and family roles, Greenhaus and Powell (2006) for example provide evidence of positive spillovers on well-being through instrumental and affective work-family enrichment when individuals are satisfied with both domains. Similarly, Rothbard (2001) suggests that multiple roles are mutually enriching and provide well-being. Bhowon (2013) also shows a positive correlation between work and family satisfaction.

From a more emotional and communication perspective, Arzu et al. (2022) observe work-family enrichment effects of the transition of positive attitudes, energies, moods, and behavior resulting in well-being benefits, while unpleasant moods and psychological distress trigger negative mechanisms.

Sirgy et al. (2020) investigate the moderating role of coping strategies in relation to work–family spillover and well-being and highlight the importance of adopting successful coping strategies against work-family conflicts between couples, shielding them from negative well-being effects. Following this reasoning, Mauno and Kinnunen (1999) found little evidence for work stressors experienced by one partner and the well-being of the other. They also suggest coping strategies (emotional support, discussing job-related problems, etc.) as an explanation for the absence of spillover effects across domains induced by conflicts in the relationship of couples.

Regarding job characteristics, work boundary flexibility, schedule control, and self-efficacy (Ferguson et al., 2015; Carlson et al., 2019) result in less work-family conflict and, consequently, enhance family functioning and marital satisfaction. Moreover, Petriglieri and Obodaru (2019) examine how life partners influence each other's professional lives through the lens of relationship and identity development. Using attachment theory, they find that mutually experiencing the other as supportive and encouraging ("bidirectional secure base") leads to the enhancement of professional identity development, acquisition of skills, resources, and inspiration useful for the own job. Couples with a unidirectional secure base, in contrast,

experience more conflict and trade-offs, internalizing fewer attributes of their life partner.

In an earlier study, Greenhaus et al. (1989) examined work domain pressures contributing to positive (high flexibility, task autonomy, and complexity) or negative effects (work role conflict, work overload, low variety and autonomy of task characteristics, work schedule inflexibility, work salience) on work family conflict. They suggest that life partners in occupational situations with high work salience probably better understand and protect one another from work-family conflict and its negative effects on subjective well-being. This connects to the concept of spillover work-oriented individuals described by Champoux (1978), in which work-oriented individuals view their work experiences more positively than non-work-oriented individuals do. As a result, high scores in the quality of work life relate more strongly to overall life satisfaction than the quality of family life does (Higgins et al., 1992; Staines, 1980).

In the context of entrepreneurship, recent dual-earner literature examines occupational similarity in employment patterns and its effects on well-being. Brown et al. (2006) for example explore intra-couple influences from an employment type configuration perspective. Employment or occupational type matching refers to couples that have similar types of employment compared to couples that pool risks through a diversification of employment types, with one employed and the other self-employed. Brown et al. (2006) report that assortative mating is more pronounced in the case of self-employment, suggesting that benefits such as transfers of specialized human capital occur when individuals match with individuals having similar characteristics and labor experiences. Andersson and Hammarstedt (2010) find similar results and can confirm that self-employment propensities are higher among individuals with self-employed life partners. They also explain their findings with the within-couple transfer of entrepreneurial knowledge and abilities. Examining the spillover of occupational stress in dual-career couples with a comparable job status, Crossfield et al. (2005) find that high levels of commitment in and satisfaction with the job positively relate to psychological well-being,

which in turn results in less strain for the life partner.

With a focus on dual-career couples (i.e., those couples where both partners show a high degree of commitment and work in top positions), Känsälä and Oinas (2016) argue that the division of domestic work has an impact on relationship quality and satisfaction. They find that division is more equal in homogenous dual-career couples compared to other dual-earner couples with less career orientation, explaining their findings with a higher propensity for paying for and outsourcing domestic work.

Following this line of thought, a self-employed life partner probably offers the maximum potential enrichment, inducing positive spillovers for entrepreneurial well-being in the work domain. Moreover, for wage-employed individuals we also propose a potential for a positive emotional spillover to their own satisfaction with work: Self-employed individuals perceive their work as an integral part of their life (Thompson et al., 1992; Jaouen & Lasch, 2015), which can result in a higher acceptance and sensitivity of the relevance of work for the life-partner. In addition to that, entrepreneurial job characteristics such as autonomy and flexibility associated with the work of self-employed (Schjoedt, 2009; Shir et al., 2019) will positively affect work experiences tied to fixed hours in wage-employment.

However, because working conditions are different between self-employed and wage-employed individuals, we expect that homogenous dual-earner couples (self-employed/self-employed and employed/employed) are more likely to experience enrichment instead of depletion effects. Given that the self-employed score higher on job satisfaction than the wage-employed (Parasuraman and Simmers, 2001; Loewe et al., 2015; Berglund et al., 2015; Ramón-Llorens et al., 2016; Stephan, 2018; Stephan et al., 2022;), we expect positive spillover effects of the work satisfaction of the life partner. We hypothesize:

> ***H1:*** *Individuals with self-employed life partners will experience higher job satisfaction than individuals with wage-employed life partners.*

While entrepreneurship offers high well-being effects such as autonomy, flexibility, self-fulfillment, and meaningfulness (Stephan et al. 2020; Stephan, 2018; Torrès and Thurik, 2019; Parasuraman and Simmers, 2001; Thompson et al., 1992; Schjoedt, 2009; Shir et al., 2019), it also demands from individuals high levels of commitment, job involvement, responsibility, and long working hours, while requiring efforts to cope with stress, complexity, time pressure, uncertainty, anxiety, and psychological and physical health issues, to name just a few aspects (Bencsik and Chuluun, 2021; Ramón-Llorens et al., 2016; Berglund et al., 2015; Lechat and Torrès, 2017; Loewe et al., 2015). Even though recent research has identified and suggested recovery mechanisms for the self-employed to cope with stress (Wach et al., 2021; Williamson et al., 2021; Williamson et al., 2019), these high levels of time investment and work dedication generally come at the expense of leisure and family satisfaction (Rothbard, 2001; Jennings and McDougald, 2007). Consequently, self-employed individuals often report lower family satisfaction than employed individuals (Parasuraman and Simmers, 2001). Entrepreneurial stressors in particular disturb the work-family balance, and as a result can lead to conflicts (Blanchflower, 2004; Kollmann et al., 2019; Parasuraman and Simmers, 2001), limited leisure time (van der Zwan et al., 2018), trigger insomnia (Kollmann et al., 2019), or even pharmaceutical drug use (Dahl et al., 2010). All of these reduce individual well-being (Patel et al., 2019), potentially leading to mental health problems and ill-being (Stephan et al., 2022).

In a dual-earner couple context, the work-family conflict potential is even more important when the partner, along with the own job, demands things that aim to compensate for the self-employed life partner's limited time resources for organizing family and leisure. This configuration leads to a complementary model of both paid and unpaid work (Wierda-Boer et al., 2009) which is expected to result in lower time and leisure satisfaction for the compensating partner in the relationship. Accordingly, it can be argued that when work and family demands compete (e.g., when a life partner has long working hours), the resulting conflicts may reduce

entrepreneurial well-being (Jennings and McDougald, 2007). In fact, one of the strongest stressors for entrepreneurs is the lack of balance between work and family (Yang and Danes, 2015). To be sure, life partners shoulder some of the family demands, and contribute to the work-family balance, but when life partners' work demands are high, they have less time for family demands, with the entrepreneur's work-life balance affected accordingly. Within the framework of work-family conflict literature, higher job commitment – typically found in the context of entrepreneurial working conditions – can lead to a time-based conflict that results in not being able to do justice to both work and family obligations (Jennings and McDougald, 2007). Moreover, the more time a partner is occupied with their job, the less human and social capital transfer can occur because the resources of the life partner are being used for their own professional commitments (Andersson, and Hammarstedt, 2010; Danes et al., 2009; Özcan, 2011).

Individual levels of work-family conflict are also good predictors of partner level work-family conflicts (Hammer et al., 1997). We therefore propose that living together with a self-employed life partner, who is anticipated as having less time for leisure and family compared to individuals with an employed life partner, spills over negatively into the leisure satisfaction of the partner. We therefore hypothesize:

> ***H2:*** *Individuals with self-employed life partners will experience lower leisure satisfaction than individuals with wage-employed life partners.*

As discussed above, and in line with spillover theory, we expect positive and negative spillover effects between life partners within these specific domains. When the individual perceptions of two domains are similar, a spillover relationship is said to exist. We will now focus on overall life satisfaction, assuming that job and family satisfaction are among the most important factors influencing overall life satisfaction (Loewe at et al., 2015). Based on the theoretical considerations of Champoux (1978), we propose a compensating effect between family and job-satisfaction on the level of the individual, which contrasts the one for wage and

self-employed individuals. The self-employed described, who are said to be higher work-oriented (Thompson et al., 1992), compensate lower satisfaction with family-life with higher satisfaction in their work domain whereas the opposite is true for the wage-employed. Higher work-orientation of self-employed is often linked to the fact that self-employed are "[…] emotionally, physically and financially invested at work" (Thompson et al., 1992: 738). Moreover, the entrepreneurial project that comes along with self-employment is part of a life plan of the individual (Jaouen & Lasch, 2015).

The effect of job-satisfaction on overall life-satisfaction has been investigated in prior research (e.g., Rice et al. 1980), and more recently in the context of entrepreneurship (e.g., Loewe et al., 2015; Stephan, 2018). It addresses the difficulty to establish work-family boundaries and appropriate flexibilities to prevent an emotional spillover of the work domain into the other areas of life, especially if work is such a time-consuming part in one's life (Ferguson et al., 2015; Thompson et al., 1992). These considerations are also part of spillover theory and the theory of work-family enrichment (Staines, 1980; Greenhaus and Powell, 2006; Greenhaus and Beutell, 1985). For instance, job resources like self-efficacy or supervisor support have been proven to induce positive spillovers to satisfaction with marriage (Carlson, et al; 2019). Here, self-employment in comparison to wage-employment is regarded as a positive moderator between job satisfaction and life satisfaction (Loewe et al., 2015). In line with research in this field (Loewe et al., 2015; Thompson et al., 1992), we expect that the difference in the importance of job and family satisfaction in terms of an overall effect on life satisfaction is more pronounced for the self-employed. Combining these arguments with the discussed positive spillover effect of self-employed life partners on job satisfaction, we expect an amplifying effect of job satisfaction on the life satisfaction of the self-employed reasoned in self-employed life-partners.

More practically formulated, for self-employed individuals job satisfaction is more closely related to life-satisfaction than family satisfaction (Staines, 1980; Higgins et al., 1992;

Binder and Coad, 2016; Parasuraman et al., 1996; Parasuraman and Simmers, 2001; Stephan, 2018, Stephan et al., 2020; Hessels et al., 2017)[7], and since we propose a surplus of job satisfaction induced by self-employed partners, we hypothesize that:

> ***H3:*** *Self-employed individuals with self-employed life partners will experience higher overall life satisfaction than self-employed individuals with wage-employed life partners.*

## 3.3 Methods

### *3.3.1 Data and sample*

Our data derives from the German Socio-Economic Panel (GSOEP), which has been conducted annually by the German Institute for Economic Research (DIW)[8] since 1984. The GSOEP is the largest representative longitudinal panel study of private households in Germany (for a detailed description, see Wagner et al., 1993, 2007; Schupp and Wagner, 2002). Every year, about 15,000 households and nearly 30,000 individuals are interviewed through the German *TNS Infratest Sozialforschung* fieldwork organization. The GSOEP surveys the head of each household in the sample, as well as all other household members above the age of 17. This fact is crucial for our analysis, allowing us to unambiguously identify cohabitating life partners. Interviews are personally conducted by an interviewer in a face-to-face format.

The data gathered encompasses information on all household members and topics, including the composition of the individual households, occupational biographies of household members, their employment status, as well as their earnings, health issues, and satisfaction indicators. Accordingly, the data provides information on sociodemographic characteristics like gender, age, education, and fields of professional experience, as well as several firm-specific

[7] Please also note that the correlation of family- and job-satisfaction with life-satisfaction is part of our robustness analysis. The results of the robustness analysis show that for self-employed individuals, job satisfaction in comparison to family-satisfaction is higher correlated with life-satisfaction. For wage-employed individuals, the effect of job-satisfaction and family-satisfaction is much smaller.

[8] *Deutsches Institut für Wirtschaftsforschung*
https://www.diw.de/en/diw_01.c.615551.en/research_infrastructure__socio-economic_panel__soep.html

characteristics of entrepreneurs' and employees' firms like their size, industry, age, and so on. In addition to questions on a wide range of personal and household subjects, respondents are also asked for their views on various topics, including political and social issues[9]. For our study, we used the dataset providing extended income information (PEQUIV), the person-related generated status (PGEN), and the individual dataset (PL).

More specifically, we used panel data from 1992 to 2018[10], focusing on wage-employed and self-employed individuals and their life partners. A life partner refers to a person who (i) lives in the same household (a cohabiting life partner) as the focal individual and (ii) shares a marital or marriage-like relationship. As indicated above, all household members were interviewed independently from their respective life partners, which is why we matched the information of the cohabitating life partner (the occupation and working hours). This matching procedure let us draw on 11,827 observations of focal self-employed individuals (3,052 unique self-employed individuals) and 121,441 observations of focal wage-employed individuals (22,772 unique wage-employed individuals) and their respective life partners. Of note is that, regarding the investigation's main research questions, our sample includes only individuals with a cohabitating life partner who is either self-employed or wage employed. Focal individuals without cohabiting life partners, or life partners not in the above-mentioned occupations were excluded from our sample.

### *3.3.2 Measures and descriptive statistics*

*Dependent variable*

*Subjective well-being:* The literature on entrepreneurial subjective well-being focuses on the two primary types of measures based on the hedonic approach: (i) cognitive-evaluative measures and (ii) hedonic-experienced measures (Kahneman and Riis, 2005; Bhuiyan and

[9] All items can be retrieved on www.paneldata.org, see the original item number of used items in Table 1.
[10] SOEP data have been available since 1984. One of our important control variables, the self-rated health status (ple0008) has been a component of the questionnaire since 1992, which is why we used data from 1992 onwards.

Ivlevs, 2019). Whereas cognitive-evaluative measures of subjective well-being focus on what people think about their life (i.e., how satisfied the individual is with his/her life in general), hedonic experienced measures – also called affective well-being measures – focus on how people experience their life (e.g., moods; Bhuiyan and Ivlevs, 2019; Kahneman and Riis, 2005; Helliwell and Barrington-Leigh, 2010). According to Helliwell and Barrington-Leigh, the cognitive-evaluative approach is more reliable because, unlike the hedonic-experienced approach, cognitive evaluations also reflect individual life circumstances and cover a longer period. Consequently, and in line with many other empirical studies (e.g., van der Zwan et al., 2018; Bhuiyan and Ivlevs, 2019; Abreu et al., 2019; Garcés-Galdeano et al., 2017), we analyze subjective well-being by drawing on a cognitive-evaluative measure, *viz.* current overall life satisfaction, the most common measure for subjective well-being and recommended by the Organization of Economic Cooperation and Development (OECD, 2013). Moreover, previous research has demonstrated high correlations of overall life satisfaction with objective measures of well-being such as education or occupational achievement (Schüller & Seligmann, 2010) or the objective health status of individuals (Ferrer-i-Carbonell, 2013). In the GSOEP, current overall life satisfaction is captured by the question "How satisfied are you with your life, all things considered?" This self-rated measure ranges from 0 "completely dissatisfied" to 10 "completely satisfied".

*Job satisfaction:* Job satisfaction expresses the individual's self-reported judgement of how happy they are with their job (Millán et al., 2013). In our study, job satisfaction is operationalized by the question "How satisfied are you with your job?" This self-rated measure of job satisfaction ranges from 0 "completely dissatisfied" to 10 "completely satisfied".

*Family satisfaction:* We also measured family life satisfaction using the individuals' self-reported evaluation of their leisure time (Binder and Coad, 2016; Kando and Summers, 1971), grounded in the question "How satisfied are you with your leisure time?". As with life and job satisfaction, the answers can range from 0 "completely dissatisfied" to 10 "completely

satisfied"[11].

*Independent variables*

*Life partner's occupation:* Our main variable of interest was the life partner's occupation. The employment status was based on the participating life partners' answer to the question "What is your current main position/occupation?" Based on the answers, we incorporated two different occupations into our regression analysis: wage-employed and self-employed life partners. Each occupation was a dummy variable with a value of 1 if the respective occupation was chosen, otherwise it was 0. Regarding the occupational situation of life partners, our data entailed 121,441 observations where the life partner was wage-employed, and 11,827 observations of self-employed life partners. All occupation constellations and their related summary statistics are shown in Table 3.2.

*Control variables*

*Individual level:* At the level of the (focal) individual, we controlled for self-rated health, working hours, and education level. Research in well-being has indicated a high influence of self-reported health on life satisfaction (e.g., Hatak and Zhou, 2021; Palmore and Luikart, 1972). Long working hours might have diverse effects on life satisfaction, as they can both be regarded as a positive indicator that the business is doing well (especially with self-employed individuals), even though they also cause stress and might trigger work-family conflicts for self and wage-employed individuals (Stephan, 2018; Werbel and Danes, 2010; Parasuraman & Simmers, 2001). The level of education can also have diverse effects on well-being, with higher levels of education able to increase the opportunity costs of entrepreneurship, facilitate

[11] The SOEP survey also contains a self-reported question directly regarding the satisfaction level with family life. While this measure would be the obvious choice for our approach, the corresponding question has only been part of the SOEP survey since 2006 and would hence result in a severe sample reduction of over 70,000 observations. To maintain a large sample, we used satisfaction with leisure time. Note that for the years 2006 and afterwards, for which both variables are available, we found that the satisfaction with family life and satisfaction with leisure time were moderately correlated (.438). Moreover, we conducted robustness checks of both measures, finding comparable results.

entrepreneurial practice, and/or generally lead to higher expectations about life (Millán et al., 2013; Dawson, 2017; Kristofferson, 2018). We also included typically considered sociodemographic variables such as gender and migration background[12].

*Business level:* At the business level, we included the number of employees, controlling for the industry in which the focal individual was active. Concerning the *number of employees*, the results of Hessels et al. (2017) show that higher employee numbers correlate with higher demands at work and lead to distress for the entrepreneur. Conversely, Schjoedt (2009) determined that entrepreneurial job satisfaction is positively influenced by the number of employees. Furthermore, the industry might also affect the individual's well-being, with some industries having a volatile and insecure environment, while others are more stable.

*Household level:* At the household level (focal and life partner), we controlled for the number of children (Angeles, 2010; Bernardo et al., 2015) and the amount of household income (e.g., Boes and Winkelmann, 2010; Coad and Binder, 2014).

Partner-level: On the level of the life-partner we controlled for the life-partners working hours per week.

Table 3.1 presents the definitions and measurements of the variables. Tables 3.2-3.4 summarizes the descriptive statistics of the variables. The pair-wise correlations among the variables are presented in Table 3.5.

[12] According to the recommendation of Wooldridge (2016) we did not include age as control variable as we included a full set of year dummies. Using year dummies makes it impossible to accurately interpret the effects of variables which increase by the same factor every year.

***Table 3.1:*** *Description of variables*

| Variable | Measurement |
|---|---|
| **Dependent variable** | |
| Life-satisfaction | Self-reported overall life-satisfaction measured in an eleven level Likert scale (0= completely dissatisfied; 10= completely satisfied) (plh0182) |
| Job-satisfaction | Self-reported satisfaction with current job measured in an eleven level Likert scale (0= completely dissatisfied; 10= completely satisfied) (plh0173) |
| Family-satisfaction | Self-reported satisfaction with leisure time measured in an eleven level Likert scale (0= completely dissatisfied; 10= completely satisfied) (plh0178) |
| **Independent variables** | |
| Occupation of focal individual | Occupational choice in main occupation measured in two different dummy variables (0=wage-employed; (1=self-employed) (pgstib) |
| Occupation of life partner | Occupational choice of life partner in main occupation measured in two different dummy variables (0=wage-employed; 1=self-employed) (pgstib) |
| **Controls** | |
| **Individual level** | |
| Gender | Gender of self- employed; 0=female 1=male (d11102ll) |
| Migration background | Migration background of the entrepreneurs (0= no migration background; 1 migration background) (pgnation) |
| Experience | Number of years running (working in) the current business (pgerwzeit) |
| Working hours | Working hours per week (plb0186_h) |
| Education | Number of years invested in education (pgbilzeit) |
| Health | Self-rated health status measured in a five-level Likert scale (How would you describe your current state of health? 1=very bad; 5=very good) (ple0008) |
| **Household level** | |
| Household income (ln) | Level of net household income per month in Euros (combined income after taxes and government transfers in the previous year of all individuals in the household) (i11102) |
| Children | Number of children in household (d11107) |
| **Business level** | |
| Industry | Industry the focal self-or paid employed individual is working in, measured in ten dummy variables: Construction; business related services; energy; manufacturing industry; trade; health and social related services; logistics; agriculture and hunting; credit and insurance; hotel and catering (reference category= health and social related services (pgnace) |
| Number of employees | Number of employees of the business of the self-employed and of the firm of the paid employed individual measured in five different dummy variables (no employees; <5 employees; 6 to 19 employees; 20 to 199 employees; 200to 1999 employees; > 2000 employees) (reference category= no employees) (pgbetr) |
| **Life partner** | |
| Working hours life partner | Working hours of life partner per week (plb0186_h) |

***Table 3.2:*** *Summary statistics*

| ***Summary statistics*** | ***N*** | ***mean*** | ***sd*** | ***min*** | ***max*** |
|---|---|---|---|---|---|
| ***Total*** | | | | | |
| *Gender* | *133.268* | *0.48* | *0.50* | *0* | *1* |
| *Migration Background* | *133.268* | *0.07* | *0.26* | *0* | *1* |
| *Education* | *133.268* | *12.70* | *2.73* | *7* | *18* |
| *Health* | *133.268* | *3.56* | *0.83* | *1* | *5* |
| *Experience* | *133.268* | *11.06* | *9.73* | *0* | *51.10* |
| *Children* | *133.268* | *0.85* | *1.00* | *0* | *9* |
| *Working hours* | *133.268* | *37.04* | *13.58* | *1* | *80* |
| *Household income (net)* | *133.268* | *48.070,79* | *27.673,92* | *298* | *1.501.704* |
| *Working hours life-partner* | *133.268* | *37.86* | *13.28* | *0* | *80* |
| ***Both wage-employed (*** | | | | | |
| *Gender* | *111.526* | *0.48* | *0.50* | *0* | *1* |
| *Migration Background* | *111.526* | *0.08* | *0.27* | *0* | *1* |
| *Education* | *111.526* | *12.55* | *2.67* | *7* | *18* |
| *Health* | *111.526* | *3.55* | *0.83* | *1* | *5* |
| *Experience* | *111.526* | *11.13* | *9.84* | *0* | *50* |
| *Children* | *111.526* | *0.84* | *0.99* | *0* | *9* |
| *Working hours* | *111.526* | *36.44* | *12.75* | *1* | *80* |
| *Household income (net)* | *111.526* | *45.028,20* | *2.870,30* | *298* | *832.820* |
| *Working hours life-partner* | *111.526* | *37.29* | *12.42* | *0* | *80* |
| ***Wage employed focal with self-employed life-partner*** | | | | | |
| *Gender* | *9.915* | *0.32* | *0.47* | *0* | *1* |
| *Migration Background* | *9.915* | *0.05* | *0.22* | *0* | *1* |
| *Education* | *9.915* | *13.31* | *2.81* | *7* | *18* |
| *Health* | *9.915* | *3.59* | *0.84* | *1* | *5* |
| *Experience* | *9.915* | *11.79* | *9.58* | *0* | *49.80* |
| *Children* | *9.915* | *0.93* | *1.04* | *0* | *6* |
| *Working hours* | *9.915* | *35.23* | *14.03* | *1* | *80* |
| *Household income (net)* | *9.915* | *61.648,11* | *41.359,20* | *3.039* | *947.279* |
| *Working hours life-partner* | *9.915* | *44.61* | *17.94* | *1* | *80* |
| ***Self-employed focal with wage-employed life-partner*** | | | | | |
| *Gender* | *9.671* | *0.64* | *0.48* | *0* | *1* |
| *Migration Background* | *9.671* | *0.06* | *0.23* | *0* | *1* |
| *Education* | *9.671* | *13.57* | *2.90* | *7* | *18* |
| *Health* | *9.671* | *3.59* | *0.83* | *1* | *5* |
| *Experience* | *9.671* | *9.74* | *8.62* | *0* | *51.10* |
| *Children* | *9.671* | *0.92* | *1.04* | *0* | *6* |
| *Working hours* | *9.671* | *44.07* | *18.21* | *1* | *80* |
| *Household income (net)* | *9.671* | *61.596,27* | *4.253,74* | *3.453* | *89.412* |
| *Working hours life-partner* | *9.671* | *35.94* | *14.02* | *0* | *80* |
| ***Both self-employed*** | | | | | |
| *Gender* | *2.156* | *0.49* | *0.50* | *0* | *1* |
| *Migration Background* | *2.156* | *0.05* | *0.22* | *0* | *1* |
| *Education* | *2.156* | *14.16* | *3.01* | *7* | *18* |
| *Health* | *2.156* | *3.71* | *0.84* | *1* | *5* |
| *Experience* | *2.156* | *10.08* | *8.69* | *0.00* | *46.80* |
| *Children* | *2.156* | *0.89* | *1.09* | *0* | *8* |
| *Working hours* | *2.156* | *44.65* | *16.65* | *1.50* | *80* |
| *Household income (net)* | *2.156* | *82.349,04* | *79.717,58* | *4.805* | *1.501.704* |
| *Working hours life-partner* | *2.156* | *44.46* | *16.91* | *1* | *80* |

***Table 3.3:*** *Summary statistics for industry*

| *Occupational position* | *Self-employed* | | | *Wage-emploed* | | |
|---|---|---|---|---|---|---|
| *Industry* | *Freq.* | *Percent* | *Cum.* | *Freq.* | *Percent* | *Cum.* |
| *[1] Agriculture & hunt* | *109* | *0.92* | *0.92* | *1,301* | *1.07* | *1.07* |
| *[2] Energy* | *29* | *0.25* | *1.17* | *1,729* | *1.42* | *2.5* |
| *[3] Manufacturing industry* | *1,180* | *9.98* | *11.14* | *26,609* | *21.91* | *24.41* |
| *[4] Construction* | *1,256* | *10.62* | *21.76* | *6,286* | *5.18* | *29.58* |
| *[5] Trade* | *1,576* | *13.33* | *35.09* | *13,998* | *11.53* | *41.11* |
| *[6] Hotel & catering* | *348* | *2.94* | *38.03* | *2,166* | *1.78* | *42.89* |
| *[7] Logistics* | *303* | *2.56* | *40.59* | *5,666* | *4.67* | *47.56* |
| *[8] Credit & insurance* | *501* | *4.24* | *44.83* | *4,567* | *3.76* | *51.32* |
| *[9] Business related services* | *2,231* | *18.86* | *63.69* | *19,422* | *15.99* | *67.31* |
| *[10] Health & social related services* | *3,065* | *25.92* | *89.61* | *28,842* | *23.75* | *91.06* |
| *[11] Industry unknown* | *1,229* | *10.39* | *100* | *10,855* | *8.94* | *100* |
| *Total* | *11,827* | *100* | | *121,441* | *100* | |

***Table 3.4.:*** *Summary statistics for number of employees*

| *Occupational position* | *Self-employed* | | | *Wage-employed* | | |
|---|---|---|---|---|---|---|
| *Number of employees* | *Freq.* | *Percent* | *Cum.* | *Freq.* | *Percent* | *Cum.* |
| *[0] no employees* | *3,909* | *33.05* | *33.05* | *93* | *0.08* | *0.08* |
| *[1] <5* | *4,383* | *37.06* | *70.11* | *9,051* | *7.45* | *7.53* |
| *[2] <20* | *1,995* | *16.87* | *86.98* | *19,340* | *15.93* | *23.46* |
| *[3] <200* | *587* | *4.96* | *91.94* | *34,518* | *28.42* | *51.88* |
| *[4] <200* | *147* | *1.24* | *93.19* | *26,124* | *21.51* | *73.39* |
| *[5] >2000* | *217* | *1.83* | *95.02* | *29,295* | *24.12* | *97.51* |
| *[6] unknown* | *589* | *4.98* | *100* | *3,020* | *2.49* | *100* |
| *Total* | *11,827* | *100.00* | | *121,441* | *100.00* | |

***Table 3.5:*** *Correlation table*

| Variables | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) | (14) | (15) | (16) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| (1) Life-satisfaction | 1.000 | | | | | | | | | | | | | | | |
| (2) Job-satisfaction | .451*** | 1.000 | | | | | | | | | | | | | | |
| (3) Family-satisfaction | .366*** | .264*** | 1.000 | | | | | | | | | | | | | |
| (4) Gender | -.036*** | -.019*** | -.010*** | 1.000 | | | | | | | | | | | | |
| (5) Migration background | .007** | -.008*** | -.050*** | .009*** | 1.000 | | | | | | | | | | | |
| (6) Education | .096*** | .055*** | .002 | .020*** | -.228*** | 1.000 | | | | | | | | | | |
| (7) Health | .403*** | .292*** | .189*** | -.006** | .007*** | .110*** | 1.000 | | | | | | | | | |
| (8) Experience | .025*** | -.026*** | .085*** | .159*** | -.053*** | .011*** | -.085*** | 1.000 | | | | | | | | |
| (9) Children | .043*** | .058*** | -.086*** | -.050*** | .040*** | .024*** | .081*** | -.184*** | 1.000 | | | | | | | |
| (10) Household income | .144*** | .084*** | .032*** | -.008*** | -.074*** | .359*** | .050*** | .171*** | .007*** | 1.000 | | | | | | |
| (11) Working hours | -.050*** | -.011*** | -.191*** | .506*** | -.039*** | .133*** | .007*** | .132*** | -.184*** | .082*** | 1.000 | | | | | |
| (12) Working hours life-partner | -.003 | -.003 | -.034*** | -.494*** | -.041*** | .050*** | .023*** | -.139*** | -.105*** | .098*** | -.210*** | 1.000 | | | | |
| (13) Wage employed (focal) | -.005** | -.051*** | .072*** | -.086*** | .021*** | -.112*** | -.021*** | .040*** | -.020*** | -.195*** | -.164*** | .009*** | 1.000 | | | |
| (14) Self-employed (focal) | .005** | .051*** | -.072*** | .086*** | -.021*** | .112*** | .021*** | -.040*** | .020*** | .195*** | .164*** | -.009*** | -1.000 | 1.000 | | |
| (15) Wage employed life-partner | -.016*** | -.035*** | .018*** | .077*** | .030*** | -.088*** | -.020*** | -.014*** | -.022*** | -.197*** | .003 | -.160*** | .100*** | -.100*** | 1.000 | |
| (16) Self-employed life-partner | .016*** | .035*** | -.018*** | -.077*** | -.030*** | .088*** | .020*** | .014*** | .022*** | .197*** | -.003 | .160*** | -.100*** | .100*** | -1.000 | 1.000 |

**** p<.01, ** p<.05, * p<.1*

### *3.3.3 Data analysis*

For our analysis, we ran hierarchical longitudinal linear regressions (xtreg) with random effects and fixed time-wise effects (years) using Stata 17[13]. We also clustered standard errors on the individual level to account for heteroscedasticity and serial correlation (Petersen, 2009), running nine different models to test our hypotheses. Models 1-3 included the effect of our control variables on our three different dependent variables. In Models 4-6, we then additionally tested for the main effects of the focal individual and the life partner's occupation on job, family, and overall life satisfaction. Finally, to test whether a life partner who is self-employed affects the well-being of the focal wage-employed or self-employed individual differently, we included an interaction term between the occupation of the focal individual and the occupation of the life partner in Models 7-9. To facilitate the interpretation of the interaction effects, we followed the recommended procedures of Garofalo et al. (2022), computing and plotting the marginal effects of the interaction with confidence intervals. Although our dependent variable showed an ordinal scale level, we ran linear regressions following the approach of prior subjective well-being research (e.g., Binder and Coad, 2016; van der Zwan et al., 2018; Wunder and Heineck, 2013).

### *3.3.4 Results*

The results in Models 1-3 (Table 3.6) show that higher levels of household income and better perceived health correlate with higher levels of job, family, and life satisfaction, which is in line with other research studies focusing on the effect of health on well-being (e.g., Hatak and Zhou 2021; Palmore and Luikart, 1972). The positive effect of income on life satisfaction is particularly in line with the results of other studies (e.g., Boes and Winkelmann, 2010; Coad and Binder, 2014), reflecting the importance of financial security. Female individuals in our sample experience less family satisfaction, albeit more life satisfaction.

[13] Many thanks to the anonymous reviewer for the suggestion to include random effects rather than fixed effects.

***Table 3.6:*** *Longitudinal linear regressions (xtreg) with random effects and time-wised fixed effects (years) and clustered standard errors*

| | (1) Job-satisfaction b/se | (2) Family-satisfaction b/se | (3) Life-satisfaction b/se | (4) Job-satisfaction b/se | (5) Family-satisfaction b/se | (6) Life-satisfaction b/se | (7) Job-satisfaction b/se | (8) Family-satisfaction b/se | (9) Life-satisfaction b/se |
|---|---|---|---|---|---|---|---|---|---|
| Gender | -.028 | .305*** | -.091*** | -.034 | .311*** | -.091*** | -.034 | .311*** | -.091*** |
| | (.023) | (.026) | (.017) | (.023) | (.026) | (.017) | (.023) | (.026) | (.017) |
| Migration background | -.076** | -.318*** | .082*** | -.077** | -.318*** | .082*** | -.077** | -.318*** | .082*** |
| | (.035) | (.041) | (.027) | (.035) | (.041) | (.027) | (.035) | (.041) | (.027) |
| Experience | -.016*** | .013*** | .000 | -.016*** | .013*** | .000 | -.016*** | .013*** | .000 |
| | (.001) | (.001) | (.001) | (.001) | (.001) | (.001) | (.001) | (.001) | (.001) |
| Working hours | .001* | -.036*** | -.003*** | .001 | -.036*** | -.003*** | .001 | -.036*** | -.003*** |
| | (.001) | (.001) | (.000) | (.001) | (.001) | (.000) | (.001) | (.001) | (.000) |
| Education | -.025 | -.036 | -.067** | -.026 | -.034 | -.066** | -.026 | -.033 | -.066** |
| | (.034) | (.041) | (.028) | (.034) | (.041) | (.028) | (.034) | (.041) | (.028) |
| Education # Education | .001 | .001 | .003*** | .001 | .001 | .003*** | .001 | .001 | .003*** |
| | (.001) | (.001) | (.001) | (.001) | (.001) | (.001) | (.001) | (.001) | (.001) |
| Health | .485*** | .352*** | .539*** | .485*** | .352*** | .539*** | .485*** | .352*** | .539*** |
| | (.008) | (.009) | (.006) | (.008) | (.009) | (.006) | (.008) | (.009) | (.006) |
| Household income | .350*** | .086*** | .342*** | .326*** | .111*** | .349*** | .326*** | .111*** | .349*** |
| | (.021) | (.023) | (.015) | (.021) | (.024) | (.016) | (.021) | (.024) | (.016) |
| Children | .042*** | -.256*** | .001 | .040*** | -.254*** | .002 | .040*** | -.254*** | .002 |
| | (.008) | (.009) | (.006) | (.008) | (.009) | (.006) | (.008) | (.009) | (.006) |
| Working hours life-partner | -.003*** | -.006*** | -.002*** | -.003*** | -.006*** | -.002*** | -.003*** | -.006*** | -.002*** |
| | (.001) | (.001) | (.000) | (.001) | (.001) | (.000) | (.001) | (.001) | (.000) |
| Occupation focal individual (Ref. wage employed indiv.) | | | | .233*** | -.245*** | -.038 | | | |
| | | | | (.036) | (.041) | (.025) | | | |
| Partner occupation (Ref. wage employed life-partner) | | | | .076*** | -.106*** | -.063*** | | | |
| | | | | (.027) | (.033) | (.021) | | | |
| Self-employed focal individual | | | | | | | .240*** | -.262*** | -.057** |
| | | | | | | | (.038) | (.043) | (.027) |
| Self-employed life-partner | | | | | | | .083*** | -.122*** | -.081*** |
| | | | | | | | (.030) | (.035) | (.022) |
| Self-employed # Self-employed life-partner | | | | | | | -.038 | .091 | .102** |
| | | | | | | | (.068) | (.079) | (.052) |
| Constant | 2.549*** | 5.870*** | 2.213*** | 2.349*** | 6.086*** | 2.256*** | 2.660*** | 5.729*** | 2.150*** |
| | (.318) | (.366) | (.252) | (.318) | (.368) | (.252) | (.319) | (.367) | (.253) |
| Observations | 131.124 | 124.953 | 133.268 | 131.124 | 124.953 | 133.268 | 131.124 | 124.953 | 133.268 |
| $R^2$ | .090 | .125 | .196 | .091 | .126 | .196 | .091 | .126 | .196 |

The individual's level of education demonstrates a negative effect on life satisfaction, supporting the results of Dawson (2017). Other studies on the effect of education level on (entrepreneurial) well-being have yielded mixed results (Stephan, 2018; Kristofferson, 2018). Whereas Millán et al. (2013) found positive effects of education on well-being, Dawson (2017) observed a negative impact of education on job satisfaction, arguing that more educated entrepreneurs might have higher business ambitions and better job perspectives in wage employment (see also Stephan, 2018). In general, individuals with higher education have stronger demands and expectations on their own life, meaning education finds no clear causality with well-being (Kristofferson, 2018).

Contrary to our expectations, the experience level of an individual, proxied by the duration of their experience in their current business, showed a negative and significant effect on individuals' job satisfaction, and a positive and significant effect on family satisfaction. Furthermore, individuals with a migration background face a significant reduction in job and family satisfaction, and a significant surplus in terms of life satisfaction. The number of children increases job satisfaction, but leads to a decrease in family satisfaction, whereas life satisfaction shows no significant correlation with the number of children. The number of working hours of the individual leads to a slight surplus of job satisfaction, while a higher workload results in a decrease in family and life satisfaction. Focusing the effect of the working hours of the life-partner we overall receive very small and negative effects. In detail, the number of working hours of the life-partner shows small but higher effects for satisfaction with family life (-.006) than for job satisfaction (-.003) and the lowest one for life-satisfaction (-.002).

Second, we further tested in Models 4-6 for the two main effects of the occupation of the focal individual/life partner on job satisfaction, family satisfaction, and life satisfaction (Table 6). Self-employed individuals here showed higher job satisfaction (+.233) but lower satisfaction with family life (-.245) in comparison to wage-employed individuals (also see

Figure 3.1 and Figure 3.2). An individual's occupation shows no significant effect with life satisfaction in general (also see Figure 3.3). Focusing on the effect of the life partner, we found a highly significant and positive effect of self-employed life partners on the focal individual's job satisfaction (+.076), which lends support to Hypothesis H1, stating that self-employed life partners increase the job satisfaction of both wage- and self-employed individuals (also see Figure 3.4 for the predictive margins plot).

*Figure 3.1: Effect on job satisfaction*


*Figure 3.2: Effect on family satisfaction*

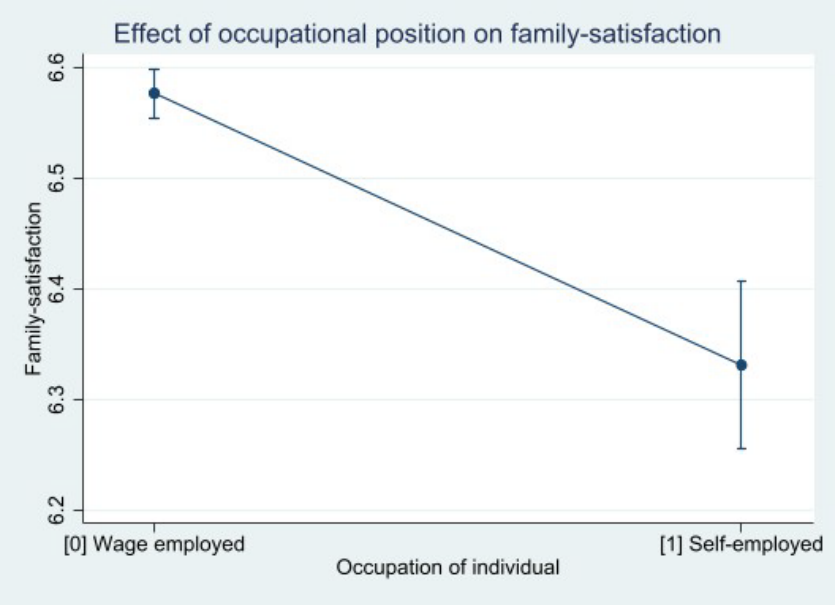
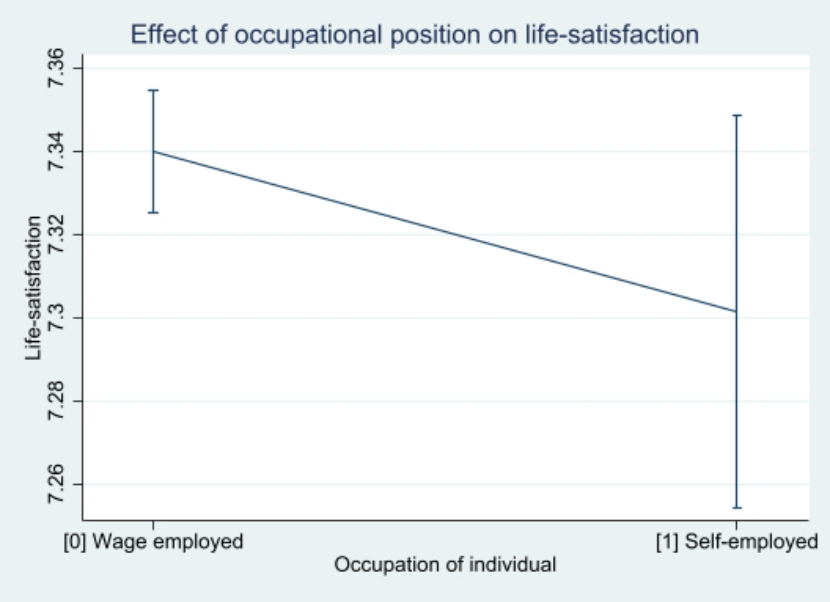


*Figure 3.3: Effect on life satisfaction*

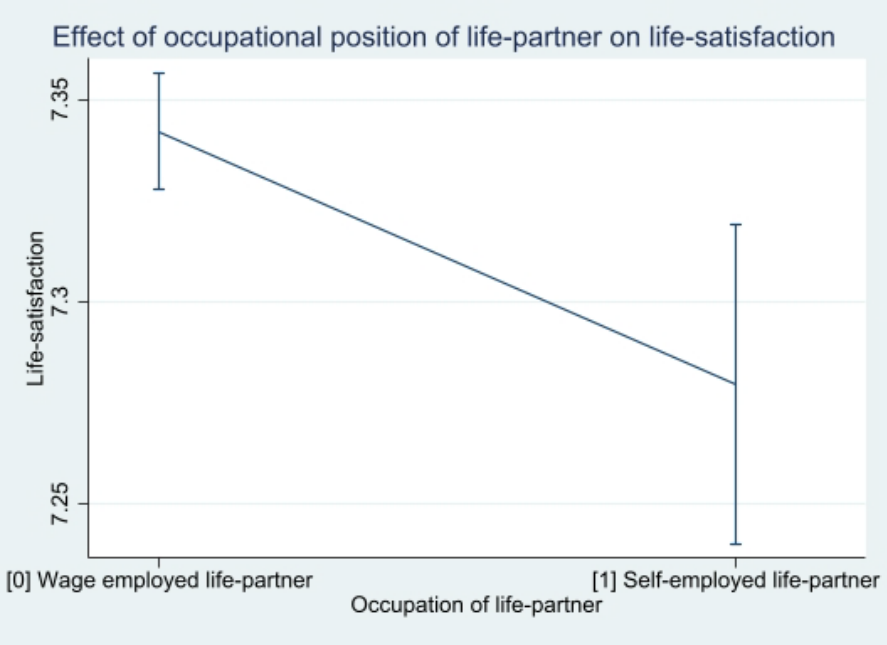



In terms of family satisfaction, we found a highly significant, negative effect (-.106) of a self-employed life partner on the focal individual's satisfaction with family life, confirming H2 (i.e., a self-employed life partner negatively affects the focal individual's satisfaction with family life; also see Figure 3.5 for the predictive margins plot). Moreover, the initial results appear to suggest that living with a self-employed life partner as compared to living with a wage-employed partner decreases the overall life satisfaction of the focal individual (-.063) (see Figure 3.6). However, this changes when we consider the results of the corresponding model with the interaction term in Models 7-9, which incorporate an interaction of the focal individual's occupation and the occupation of the life partner on job, family, and life satisfaction. The results of Model 7 show that self-employed life partners provide positive spillovers to work satisfaction of the focal individual irrespective of his or her occupation, confirming H1.

***Figure 3.4:*** *Effect of life partner's occupation on job satisfaction*

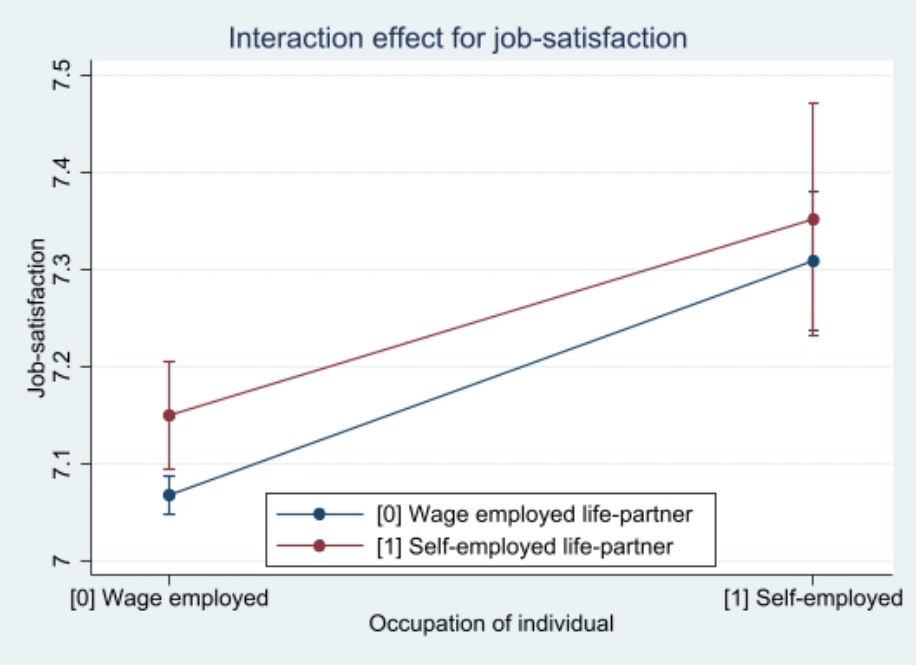

***Figure 3.5:*** *Effect of life partner's occupation on family satisfaction*

***Figure 3.6:*** *Effect of life partner's occupation on life satisfaction*



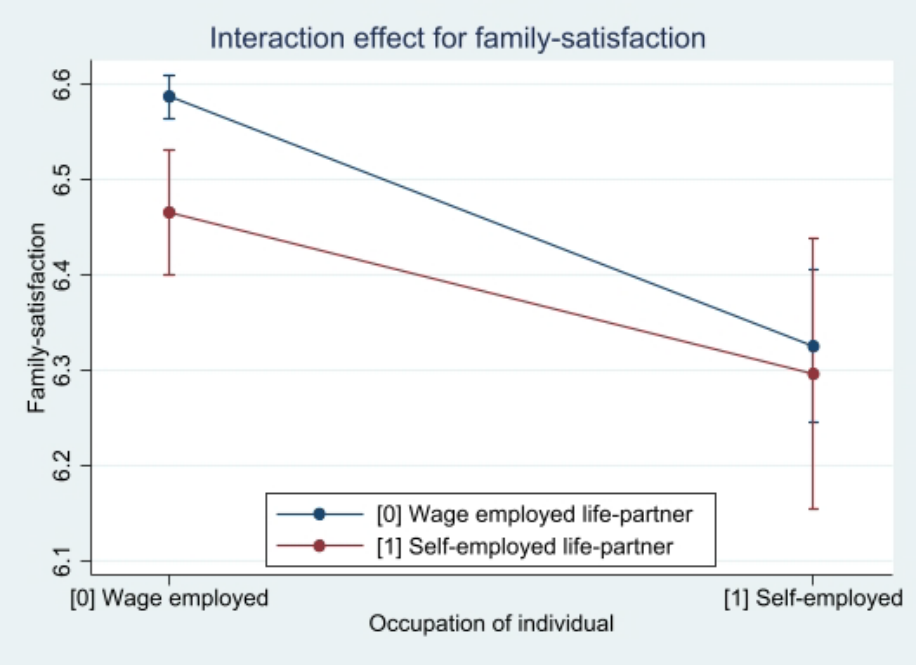

Further examining the margins plot (Figure 3.7) it was seen that a self-employed life partner increases the job satisfaction of wage- and self-employed individuals. Compared to the wage-employed, self-employed individuals display higher job satisfaction in general, and this effect is further strengthened by an occupational match between the focal individual and his or her life partner. Moreover, the confidence intervals of the predicted margins show higher heterogeneity for self-employed individuals and the effect of the life partners' occupations. The confidence intervals "[…] interpreted as a range of plausible values in the population" (Garofalo et al., 2022: 8) display a strong overlap for self-employed individuals and their partner's occupation. For wage-employed individuals, the confidence intervals for self-employed and wage-employed life partners did not show any overlap, but a delimitation instead. This lends support that wage-employed individuals are more homogenous concerning the effect of the life-partner's occupation.

***Figure 3.7:*** *Interaction effect for job satisfaction*




In terms of family satisfaction, we also found no significant interaction between the occupation of the focal individual and the self-employment of the life partner. The margins plot shows that self-employed life partners decrease family satisfaction for both wage- and self-employed individuals. Looking at the confidence intervals (Figure 3.8), we again obtained a larger overlap of the plausible values of family satisfaction for self-employed individuals in the population compared to a demarcation of confidence intervals and the partners' occupation for wage-employed individuals. As commonly known, two confidence intervals overlapping does not automatically mean the difference between two coefficients is not significant. When intervals overlap, extreme or least likely possible values of one coefficient show an overlap with the most extreme or least likely possible values of the other (Garofalo et al., 2022).

***Figure 3.8**: Interaction effect for family satisfaction*




For the overall life satisfaction, the interaction term is significant (Model 9), which is why we received a different effect of self-employed life partners on the focal individual's life satisfaction depending on his/her occupational position. This significant interaction term (Figure 3.9) supports H3, suggesting that self-employed life partners are more beneficial in terms of life satisfaction for self-employed individuals than for wage-employed ones. The margins plot of this interaction term shows an overlap of plausible values (confidence intervals) for self-employed individuals, but not for wage-employed ones.

***Figure 3.9:*** *Interaction effect for life satisfaction*

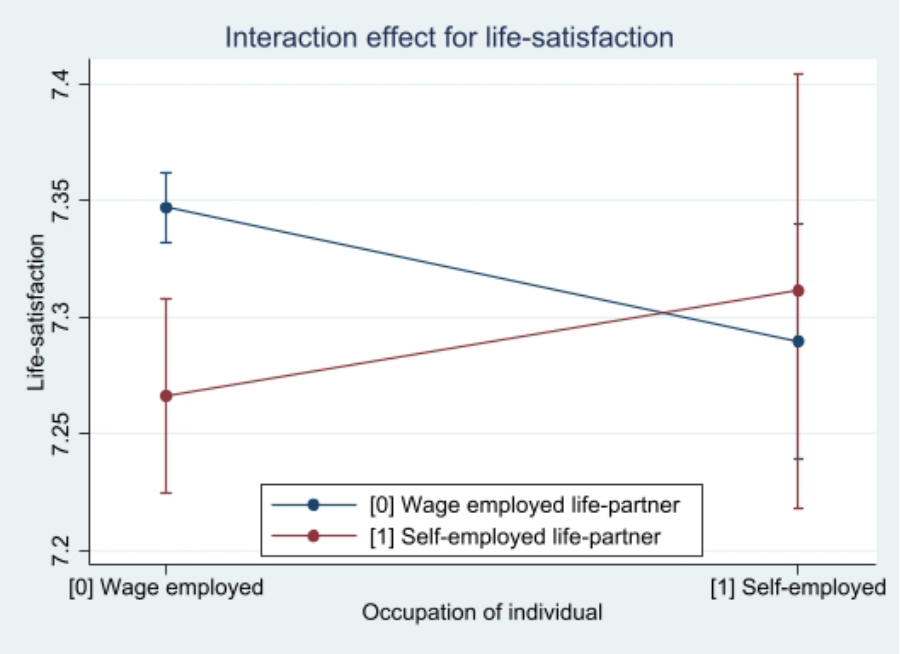
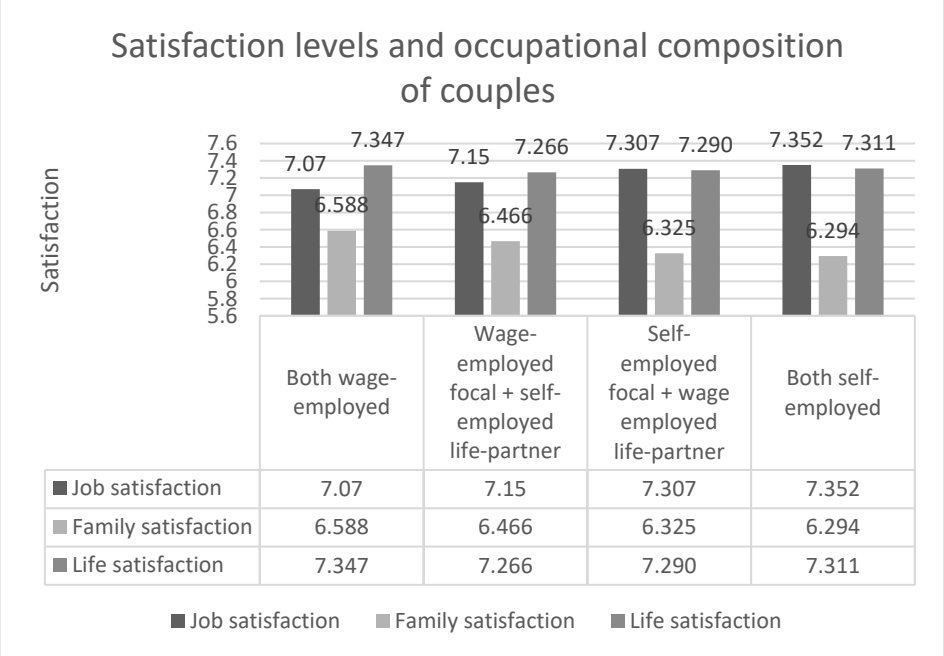



Figure 3.10 displays all results in terms of the occupational combination in the couple, and the respective levels (predicted margins) for job, family, and life satisfaction.

***Figure 3.10:*** *Satisfaction levels and couple combination*




| | Both wage-employed | Wage-employed focal + self-employed life-partner | Self-employed focal + wage employed life-partner | Both self-employed |
|---|---|---|---|---|
| Job satisfaction | 7.07 | 7.15 | 7.307 | 7.352 |
| Family satisfaction | 6.588 | 6.466 | 6.325 | 6.294 |
| Life satisfaction | 7.347 | 7.266 | 7.290 | 7.311 |

For H1, (see Figure 3.10) our results show that the highest job satisfaction is experienced when both partners are self-employed, although we also found high levels of job satisfaction

when a self-employed focal individual lives with a wage-employed life partner. Job satisfaction levels drop when a wage-employed focal individual lives with a self-employed life partner and are lowest when both are wage-employed.

For H2, compared to job satisfaction (H1), we see an inverse pattern for family satisfaction. Self-employment results in the lowest levels of family satisfaction when both partners are self-employed, and when a self-employed focal individual lives with a wage-employed life partner. Wage-employed focal individuals experience higher levels of family satisfaction when living with a self-employed life partner, and family satisfaction is highest when both are wage-employed.

For H3, we found the highest levels of overall life satisfaction in couples where both are wage-employed, followed by couples where both are self-employed. In mixed occupational situations, we found the lowest levels of life satisfaction when a wage-employed focal individual lives with a self-employed life partner; they are slightly higher when a self-employed focal individual lives with a wage-employed life partner.

### *3.3.5 Robustness checks*

We conducted several additional empirical tests to rule out other possible explanations of our results and increase the robustness of our models. This entailed investigations regarding whether selection or change effects exist. We applied entropy balancing (Hainmueller, 2012) and fixed effects regression to identify whether a change in the life partner's occupation affects the well-being of the focal entrepreneur (e.g., a life partner changes from wage-employment to self-employment or vice versa). Entropy balancing enabled us to account for a weighting factor based on the individuals' characteristics (age, income, education level, etc.) for the different ways of transitioning. Before applying entropy balancing, we identified the balancing variables, which generated a balanced sample for the treatment group (life partners who display a change in the occupational position between n-1 and n) and the control group (life partners who do not display a change in occupational position between n-1 and n).

Afterwards, we collapsed the dataset on just one observation for each individual to assign exactly one weight to each. This weighting factor was then matched with our baseline sample. Accordingly, we included the calculated weighting factor into a longitudinal fixed effects regression with time-based fixed effects (years) equivalent to a difference in difference model with year dummies. We tested for four different ways of occupational transitions (treatments) by performing longitudinal regression for each treatment, including the associated weight received from entropy balancing. The results of these models are displayed in Table A.3.1. The results do not suggest any effects of the life partners' transition from wage-employment to self-employment and vice versa on job, family, and life satisfaction.

Furthermore, to give additional support to H3, we have split our sample into wage- and self-employed individuals. In doing so, we can test for the effects of job satisfaction and family satisfaction on life satisfaction regarding differences between employees and self-employed (Table A.3.2). Although not hypothesized, it was interesting to establish a ranking for the importance of job and family satisfaction as they relate to overall life satisfaction. Therefore, we conducted linear comparison analysis in each sample by applying the lincom command to support our assumption that job satisfaction and family satisfaction differ significantly from each other in terms of their respective effects on life satisfaction. We can observe a significant difference in the coefficients (satisfaction with job – satisfaction with family-life) of .19 for self-employed individuals and a significant difference of .05 for the waged employed. This lends support that job-satisfaction for self-employed individuals is more important regarding its effect on life satisfaction than it is for wage employed individuals.

## 3.4 Discussion and Conclusion

The family context has been neglected in entrepreneurial well-being research, and knowledge is lacking regarding the relationship between occupational situations and well-being (Stephan et al., 2020). The present article intended to fill this gap in the research literature by analyzing

the influence of the family context, the occupational situation of the life partner, as well as regarding the well-being of the self-employed. While prior research on the relationship between the family context and the well-being of entrepreneurs concentrated on the consequences of entrepreneurial well-being for others (Stephan, 2018; Gorgievski-Duijvesteijn et al., 2000; Wirback et al., 2014; Gudmundsson, 2013), our study on the couples' level focuses on the occupational choice consequences of the life partner for the well-being of wage- or self-employed individuals. In doing so, we provide new knowledge for a better understanding of contextual factors affecting entrepreneurs' well-being.

By addressing two research questions (*Does the occupation of a life partner - self-employment vs. wage-employment - affect the well-being of individuals? Does the occupation of a life partner affect different types of an individual's well-being?*), we derived three hypotheses. The first examined the effect of different occupational combinations in couples on job satisfaction (H1), family satisfaction (H2), and overall life satisfaction (H3).

Grounding our analysis in spillover and compensation theory together with arguments drawn from the work-family conflict/enrichment perspective, our results show that different combinations of occupational situations in a couple result in different effects on the well-being of individuals and are influenced by the employment status of the life partner (wage-employed or self-employed). We conclude that occupational situation and work-specific conditions affect the well-being of self-employed life partners. In other words, a self-employed life partner both reduces the family satisfaction (negative spillover) while increasing the job satisfaction (positive spillover) of the entrepreneur. We similarly provide evidence for compensation effects across job and family domains, resulting in different levels of overall life satisfaction.

### *3.4.1 Contributions to theory*

The results of our study contribute to spillover and compensation theory within the framework of entrepreneurial well-being. Earlier theories of spillover, compensation, and work-family enrichment (Champoux, 1978; Staines, 1980; Evans and Bartolomé, 1984; Greenhaus

and Powell, 2006; Greenhaus and Beutell, 1985) mainly concentrated on the individual level of analysis to explain the well-being of wage-employed individuals (Parasuraman et al., 1989; Rothbard, 2001; Parasuraman et al., 1992). In the context of entrepreneurship, our study provides an analysis on the couples' level, contributing to the recent stream of work-family literature that examines well-being among dual-earner couples with an occasional focus on the self-employed (Parasuraman and Simmers, 2001; Loewe et al., 2015; Ramón-Llorens et al., 2016). We show that life partners and their occupational situation can also lead to positive and negative spillovers that affect the well-being of the focal individual, linking our study to the approach of Altobelli and Moen (2007) that treats the couple as the unit of analysis in terms of spillovers between the work and family boundaries.

Overall, we observe self-employment effects that both positively (job and overall life satisfaction) and negatively (family satisfaction) impact areas of life. On the individual level, our findings are in line with existing literature, with self-employment positively affecting job and life satisfaction and negatively affecting family satisfaction (Stephan, 2018; Wiklund et al., 2019; van der Zwan et al., 2018). Because the work domain is central and more prominent in the life of self-employed individuals (Thompson et al., 1992; Loewe et al., 2015), meaning job satisfaction is more closely related to life satisfaction (Stephan, 2018, Stephan et al., 2020; Nikolova, 2019; Binder and Coad, 2016; Parasuraman et al., 1996; Parasuraman and Simmers, 2001), our study supports the idea that self-employed individuals perceive an increase in overall life satisfaction when they are together with a self-employed life partner in comparison to wage-employed individuals.

In addition to these positive spillover or enrichment effects of self-employed life partners affecting work satisfaction, we also provide evidence of negative spillovers or depletion effects resulting from work-family conflicts that reduce entrepreneurial well-being in terms of family or leisure satisfaction (Jennings and McDougald, 2007; Yang and Danes, 2015). Here our findings in the context of self-employment differ from earlier literature examining

wage-employed couples and suggesting enrichment from work to family satisfaction (Greenhaus and Powell, 2006; Rothbard, 2001; Bhowon, 2013). Interestingly, (entrepreneurial) job characteristics like work boundary flexibility, control over the own schedule and self-efficacy (Ferguson et al., 2015; Carlson et al., 2019; Schjoedt, 2009; Shir et al., 2019) provide beneficial effects on family functioning and satisfaction in the wage-employed context although not in the self-employment context we studied.

All the effects, which we derived from the work-family interplay literature, differ depending on the occupational constellation in the household (see Figure 1). We find a well-being surplus of life satisfaction for both wage and self-employed homogenous couples. When both are self-employed, the well-being surplus relates to job satisfaction at the cost of family satisfaction. When both are wage-employed, we observe the reverse. For the self-employed, we explain these results by arguing that the self-employed not only experience higher job-satisfaction than wage-employed individuals do (Binder and Coad, 2016; Parasuraman et al., 1996; Parasuraman and Simmers, 2001; Stephan, 2018; Stephan et al., 2022). They also place more value on job satisfaction. Moreover, they also benefit from the positive spillovers induced by the self-employed occupation of their partners. For occupationally heterogeneous couples, however, we observe more nuanced effects: lower levels of job satisfaction and higher levels of family satisfaction compared to the homogenous self-employed constellation, and higher job satisfaction but lower family satisfaction compared to the homogenous wage-employed constellation.

The results of our study further contribute to how we view occupational situations among couples through the contextual lens of entrepreneurship (Welter, 2011), providing new findings on the effect of the social context on entrepreneurship and entrepreneurial well-being. The family context and its diverse constellations remain under-researched (Jaskiewicz and Dyer, 2017). With this in mind, the consideration of the family context is new in entrepreneurial well-being research, and the relationship between occupational situations in households and

well-being remains not (yet) well understood (Stephan et al., 2020a; Stephan, 2018; Brannon et al., 2013; Jennings et al., 2013; Kim and Sherraden, 2014).

Life partners are the closest family members and human capital resource of the entrepreneur, and many new entrepreneurs benefit from life partner support (Carter et al., 2017; Klotz et al., 2014; Ruef et al., 2002). However, the influence of life partners is still insufficiently understood (Brannon et al., 2013; Howorth et al., 2010), and more research will be needed to examine how life partners affect entrepreneurship (Jennings et al., 2013). In the literature, life partners are examined mainly under the angle of emotional ("pillow talk") or instrumental support (Adler and Kwon, 2002), providing personal, time, and psychological resources such as occasional or regular paid and unpaid help (Aldrich and Kim, 2007; Martini and Bellavitis, 2014; Ruef et al., 2003; Sraer and Thesmar, 2007). Here we contribute by connecting the literature on the life partners of entrepreneurs to entrepreneurial well-being research, achieving a better understanding of how life partners affect the job and life satisfaction of the self-employed (Block and Koellinger, 2009; Millán et al., 2013; Coad and Binder, 2014).

Considering the occupational situation of the life partner, our study contributes to the literature dealing with the assortative connecting of couples (e.g., Bradbury et al., 1986; Andersson and Hammarstedt, 2010) by showing that employment type matching not only increases the propensity by which couples adjust in terms of occupational choice, but also that employment type matching increases the well-being of individuals. In the work-family interface context, we suggest that a self-employed life partner represents the maximum potential enrichment and positive spillovers for entrepreneurial well-being.

Self-employed life partners are also especially beneficial to the entrepreneur because of their entrepreneurial, knowledge, and industry experiences. In addition, they are likely to have seen long working hours and uncertain outcomes themselves and can discuss these or serve as an example or role model to the entrepreneur (Caputo and Dolinsky, 1998). By having a self-employed life partner, both might have already been confronted with the issues and conflicts of

entrepreneurial life. Self-employed life partners can empathize with the entrepreneur in difficult times, adjust their expectations to the benefit of the entrepreneur in the household domain, and can flexibly accomplish both housework and business tasks (El Shoubaki et al., 2021). This ability to adapt may circumvent potential work-family conflicts, which, as discussed above, are a major reason for decreased entrepreneurial well-being (Yang and Danes, 2015). Most importantly, for a life partner to be open to such adaptations, they need to have a profound understanding of what entrepreneurship is. The occupation of the life partner furthermore reflects the human capital that they represent, with a self-employed life partner best equipped to buffer an entrepreneur against the downsides of entrepreneurship.

### *3.4.2 Implications for practice*

The results of our study have several implications for practice. Entrepreneurial well-being is not yet well understood, particularly when considering the social context, it takes place within. While research has examined the benefits and consequences of entrepreneurship on individuals, it has overlooked the consequences of entrepreneurship within couples. The well-being effects of entrepreneurship in the household are influenced by the occupational situation, as well as by how work is experienced. Self-employment provides well-being spillover benefits in terms of job satisfaction and overall life satisfaction, albeit at the cost of leisure and family satisfaction.

This is particularly true when both life partners are self-employed. In this constellation, work-family conflicts are a challenge, and dissatisfaction with family and leisure can result in entrepreneurial ill-being. Therefore, self-employed couples should actively discuss and implement coping strategies to enhance leisure and family satisfaction, even if their overall life satisfaction is strongly influenced by their job satisfaction, given the central role of entrepreneurship as part of their identity and life plan. Paradoxically, while entrepreneurs experience time-based conflict, work characteristics such as autonomy and flexibility allow better control of the allocation of leisure and family time.

Since entrepreneurs work on average longer hours than wage-employed individuals do, one central question is how entrepreneurial couples can use their limited time and energy better to increase family satisfaction. Entrepreneurial couples, or persons living with a self-employed partner, should actively and explicitly discuss and define coping strategies to find the right balance between work and family to prevent the entrepreneurial illness caused by dissatisfaction with family life and leisure. Recent entrepreneurial well-being research suggests coping strategies in the form of mutually supportive and encouraging attitudes (Petriglieri and Obodaru, 2019), with the awareness that good communication on the couples' level is necessary to provide the respective partner with positive energy and the right environment (Arzu et al., 2022).

From a practical household organization view, a more balanced combination strategy of paid and unpaid work in the household can reduce one member of the couple that compensates too much when the other cannot fully meet work and family expectations and obligations (Wierda-Boer et al., 2009). As the division of domestic work is shown to have an influence on family satisfaction (Känsälä and Oinas, 2016), entrepreneurial couples could outsource more domestic work to obtain more leisure time.

Detachment and recovery mechanisms are not only solutions for preserving good health and improving entrepreneurial performance, but they also allow remaining energy and time to be invested in family and leisure activities. Rest, sleep, and quality time are important for restoring physiological and psychological energy (Williamson et al., 2019). Using non-work time more efficiently is important to detach from entrepreneurial stressors (Wach et al., 2021). Recovery activities like breaking away from work, and cognitive and physical exercise, should therefore be considered by the self-employed couple as "investments" in entrepreneurial well-being and a shield against ill-being (Williamson et al., 2021).

Overall, self-employment per se and self-employed couples in particular face greater time-based conflicts with family life that result in decreased satisfaction with family life for

both. Entrepreneurial couples should attempt to find a more balanced perspective when it comes to family life. The awareness of the conflicts that result from reduced satisfaction with family life should guide couples to implement mechanisms and coping strategies to find a more balanced way of living that more effectively incorporates both domains of work and family. Although discussing and clearly defining these coping strategies will not automatically result in making life easier for self-employment, it can make self-employment easier within life, especially family life.

There are some other recommendations we can derive from our results for practice. Institutional context and support for entrepreneurship strongly differs between countries (Stephan et al., 2022; 2020b) and leaves room for government action. Governmental policy should focus on facilitating a better balance of work and family for the self-employed through things such as state insurance coverage in the event of illness, pregnancy, or care for dependent relatives. Also, life partners of entrepreneurs should not be overlooked or only considered as emotional or instrumental support, but also as an extension of the entrepreneur's human and social capital. Financial suppliers (e.g., venture capitalists, banks, and business angels) commonly evaluate the entrepreneur, the business model, and financial key figures like revenue and profits when assessing further credit and shareholding (for an overview, see Bruns and Fletcher, 2008). What is often neglected in these calculations however is the potential delivered by life partners. The need to acquire capital for a novel business increases the value of positive signals rooted in the entrepreneur and the life partner, as shown in our study. New ventures have no business history (of e.g., revenue and profit) to consider in the evaluation process (Backes-Gellner and Werner, 2007). The life-partner of the entrepreneur should so be acknowledged by financial suppliers from an information economics perspective. The findings of our study and other studies such as Hatak and Zhou (2021) should therefore encourage financial suppliers to include an entrepreneur's life partner in their credit rating and assessment.

*3.4.3 Limitations and future research directions*

Our study is not without limitations. We were not able to incorporate information about the quality of the relationships we studied. For instance, the results of Chapman and Guven (2016) suggest that happiness with life is highly correlated with the quality of the relationship, whereas the effect of the employment status (unemployed versus employed) decreases when controlling for relationship quality. Chapman and Guven (2016) measure the quality of the relationship by utilizing satisfaction with family life as a proxy. Satisfaction with family life is also part of the SOEP but has only been so since 2006. Including it would result in dropping almost 50% of our observations and losing thirteen years of data. Given that the measure, like every proxy, may also suffer from confoundedness (in this case the role of the children in family life satisfaction), and given that it is not the focus of our analysis, we decided against systematically dropping our earlier observations which could introduce significant bias. Future research may nevertheless try to incorporate relationship quality into the analysis.

For entrepreneurs with self-employed life partners, the dataset has limitations with respect to identifying whether the entrepreneurial couple runs the same or different businesses. Therefore, we worked around this limitation by using proxies for the identification of a couple's jointly managed businesses. A couple that jointly runs and manages a business (copreneurial couples) simultaneously strives to meet family and business goals and may perceive a more intense "we-ness"- consideration of themselves driven by couple goal congruence in addition to their existing romantic bond (Jang and Danes, 2013: 46; Chua et al. 2011). Higher "we-ness" within the couple –the mutual perception as entrepreneur in the partnership combined with a team feeling (Jang and Danes, 2013) - might positively affect entrepreneurial well-being. On the other side, running the same business and the accompanying overlap of work and family-life might trigger conflicts and so negatively affect the well-being of both partners. Further research should start by investigating whether couples running a business together report higher or lower well-being than couples who are self-employed with several businesses.

Moreover, as we do not have adequately information in the SOEP on the specific working conditions, the individuals are exposed to in their specific occupation, we are not able to test for potential mediators that might mediate our investigated. We must leave this aspect to future research.

Another limitation of our study addresses our measure for subjective wellbeing: the overall life satisfaction. Although it is a very common measure for studying the subjective wellbeing of individuals (Diener et al. 2012; Helliwell and Barrington-Leigh, 2010), also in the context of entrepreneurial wellbeing (e.g., Bhuiyan and Ivlevs, 2019, van der Zwan et al. 2018), it is still a single-item variable and might be criticized for only capturing one dimension of subjective wellbeing, while neglecting for instance the affective and eudaimonic facete of it. On the other hand, the overall life satisfaction (measured via a single item scale) has in general shown higher correlation with the social context than happiness did (Helliwell and Putnam, 2004) and is recommended by the latest recommendation for the measurement of subjective wellbeing of the OECD (OECD, 2013; Bhuiyan and Ivlevs, 2019).

Moreover, the unique survey structure of the SOEP that individually interviews each household member makes it possible to incorporate both parties of a couple. To mitigate a potential "household effect," we controlled for variables on the household level such as household income and the number of children. However, it remains possible that some issues could not be captured by our household-level controls. Although we used an established and longitudinal panel model, we were not able to fully rule out possible reversed causality or simultaneity issues. We addressed this problem in our robustness analysis by applying entropy balancing with ongoing investigations into the effect of a change in the life partner's occupation on the focal individual's satisfaction levels. As there were only a few life partners with occupational transitions in our study, especially from self-employment to wage-employment (0.6% of observations) and vice versa (0.73% of observations), we were not able to thoroughly interpret and receive meaningful results regarding a change in the life partner's occupation. We

leave it to future research to utilize a data set that allows light to be shed on these effects of social context, and especially the family, on entrepreneurial well-being.

## 3.5 Conclusion

By addressing contextual antecedents of entrepreneurial well-being, our findings contribute to two literature streams in the field of entrepreneurial well-being: (i) the relevance of the social context of the household (life partner) and related spill-over and compensation theory, and (ii) work-family interplay in the entrepreneurship context. Our study provides new arguments about why and how family-embedded contextual factors can relate to an entrepreneur's well-being.

Our study provides new insights into the well-being of the entrepreneur, especially in the social context, by focusing on the effects of the occupational position of the life partner. By applying spillover and compensation theory, our results show that self-employed life partners and their occupation provide positive spillover to focal individuals' satisfaction with work, regardless of whether they are wage- or self-employed. In the case of family satisfaction, we show that self-employment provides negative spillovers to life partners, as self-employment per se is associated with lower family satisfaction. The overall life satisfaction of self-employed individuals, in comparison to those who are wage-employed, is positively affected by self-employed life partners because self-employed couples display higher life satisfaction than when the self-employed partner is in a relationship with a wage-employed life partner. Our special sample structure enables us to test for the effect of life partners on the well-being of the entrepreneur, offering a new perspective of entrepreneurial well-being and its antecedents within the social context.

# 4. How Do Life Partners and Their Occupational Choice Affect the Path of Transition to Entrepreneurship? A Comparison Between Direct and Indirect Entry into Entrepreneurship

Cemre Demir • Meike Stephan •Arndt Werner

**Abstract**

Although hybrid entrepreneurship constitutes a significant share of entrepreneurial activity, research on this topic is still in its infancy. Moreover, in general entrepreneurship research only few studies have investigated intra-couple influences on the decision to be and to become self-employed. Therefore, in the study at hand, we use panel data from the German Socio-Economic Panel (GSOEP) to analyse whether life partners and their occupational choice relate to wage workers' propensity to enter full-time entrepreneurship either directly or indirectly via hybrid entrepreneurship. Drawing on social capital theory, this study also tests whether the results are different for men and women. Although hypothesised, we find no empirical evidence for the relevance of life partners and their occupations on direct transition to full-time entrepreneurship. For women, however, our findings do suggest that having a self-employed life partner significantly increases their propensity to enter entrepreneurship indirectly, that is, via hybrid entrepreneurship.

**Keywords:** Hybrid entrepreneurship; social capital; life partner; occupation; gender-related differences

**JEL Codes:** L26, D81, J16

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## 4.1 Introduction

The research area of entrepreneurship is rich in literature covering individual-specific factors associated with an individual's decision to undertake entrepreneurship. Much of the previous research has ascribed this decision to the traits and dispositions of the entrepreneur, thereby emphasizing the role of internal mechanisms (Oezcan and Reichstein, 2009) and making strong assumptions about outside effects, external influences, and the context (Carroll and Mosakowski, 1987; Thornton, 1999). In reaction to this classical perspective, Welter (2011) has called for a more context-embracing perspective within entrepreneurial research and has suggested a focus on context conditions by identifying two dimensions dealing with the question of 'when' (temporal and historical) and four dimensions dealing with the question of 'where' (business, social, spatial, and institutional). The social context incorporates the household and family embeddedness. Responding to this call, entrepreneurship research embracing the social context has increasingly investigated intergenerational influences (e.g., de Wit and van Winden, 1989; Lindh and Ohlsson, 1996; Dunn and Holtz-Eakin, 2000). However, interactions between couples are still lacking appropriate academic attention. This is surprising because most entrepreneurs have a life partner (Blanchflower and Meyer, 1994; Bruce, 1999; Blanchflower, 2007; Parker, 2008; Özcan, 2011). Only few studies have addressed intra-couple influences (e.g., Caputo and Dolinsky, 1998; Bruce, 1999; Budig, 2006; Parker, 2008), and the understanding of its impact on the decision to be and to become self-employed are still vague.

The study at hand responds to this gap in research literature by analysing whether an individual's decision to become an entrepreneur is affected by social capital in form of the existence as well as the occupational position of a life partner. While previous studies have only investigated the effect of life partners on the choice of a direct movement into full-time entrepreneurship (e.g., Caputo and Dolinsky, 1998; Özcan, 2011), research has not yet considered whether the individuals in transition have already been engaged in entrepreneurial

activities in secondary employment (e.g., hybrid entrepreneurship) at the time of the switch. Thus, the impact of life partners and their social capital on this stepwise movement into entrepreneurship remains unclear. Specifically, the study at hand focuses on the transition from hybrid entrepreneurship, that is, where an individual remains in a salaried primary job while entering self-employment in a secondary job (Folta, Delmar, and Wennberg, 2010). Hybrid entrepreneurship enables the individual to test and learn about their entrepreneurial ability and business potential (Petrova, 2010a and 2010b), while only making small initial commitments in terms of time and capital (Raffiee and Feng, 2014). This process of testing and learning determines how much fear of failure and perceived risk can be reduced and how entrepreneurial competency and self-efficacy can be increased (Ferreira, 2020). Ultimately, this determines how the business is continued (Wennberg et al., 2006). Assuming that individuals who are more risk averse are also more likely to enter hybrid entrepreneurship relative to full-time entrepreneurship (Raffiee and Feng, 2014), and assuming that women are more risk averse than men (Solesvik et al., 2013), the study at hand focuses on social capital effects and gender-related differences in decision-making behaviour within staged entry into entrepreneurship.

Using panel data from the German Socio-Economic Panel (GSOEP), we ran conditional fixed-effects logistic regressions that link the presence of social capital in form of the existence as well as the occupational position of the life partner to the individual's occupational choice of entering entrepreneurship directly from wage employment or indirectly via hybrid entrepreneurship. By doing so, our study is novel: it can distinctively identify social capital effects within the entrepreneurial process and hence shed light on how social capital differently relates to a direct and indirect movement into entrepreneurship. Our study contributes to the literature on hybrid entrepreneurship by investigating the relevance of social capital on the decision to enter full-time versus hybrid entrepreneurship. Our study also contributes to the entrepreneurship research embracing the social context by seeking evidence regarding whether

the existence of a life partner as well as the life partner's occupational position is relevant in the context of this specific occupational decision. Furthermore, our study contributes to the debate on gender-related differences in entrepreneurship by investigating possible different meanings of social capital for men and women in their decision-making behaviour. Besides these theoretical implications, our study also has practical implications, as it can provide policymakers with a greater understanding of the dynamics of hybrid entrepreneurship and the relevance of social capital within the family context for new venture creation. The paper proceeds as follows: in the second section, an overview of the related literature is provided, and the theoretical framework and the hypotheses are outlined. The third section contains a description of the data sample, variables, and analytic strategy. The fourth section presents the results of the empirical study. Finally, the fifth section concludes this paper by discussing the main results, limitations, practical implications, and suggestions for future research.

## 4.2 Literature Overview and Hypotheses Development

### *4.2.1 Unmasking Hybrid Entrepreneurship as a Stepwise Movement into Entrepreneurship*

Hybrid entrepreneurs have been neglected in entrepreneurship research for a long time as their prevalence challenges the traditional consideration of entrepreneurship as a dichotomous choice between entry and no entry, between self-employment and wage labour (Burke, FitzRoy, and Nolan, 2008). In the past decade, however, researchers have recognized that hybrid entrepreneurs are a discrete group with unique antecedents (e.g., Thorgren, Nordström, and Wincent 2014), characteristics (e.g., Kurczewska et al., 2020), dynamics (e.g., Wennberg et al., 2006; Schulz, Urbig and Procher, 2016), and outcomes (e.g., Fini, et al., 2017; Marshall et al., 2019). Folta et al. (2010) have made a core contribution to this relatively new research stream by introducing a theoretical framework focusing on the individual's stepwise movement from wage employment to self-employment. In their process-based model, the authors emphasize that individuals can transition into self-employment while also retaining their wage job. In a first systematic literature review (Demir et al., 2020), a vast amount of applied nomenclatures,

criteria, and conceptions was found – not only concerning hybrid entrepreneurship, but also concerning related concepts such as multiple job holding (Bouwhuis, et al., 2017) and part-time entrepreneurship (Petrova, 2005, 2010a, 2010b, and 2012). To provide a solid overview of the simultaneous engagement in wage employment and self-employment, independent of the terms and labels, the study at hand defines *hybrid entrepreneurs* as individuals who engage in self-employment activities while simultaneously holding a primary job in wage employment. This definition is in line with the proposed concept by Folta et al. (2010).

Hybrid entrepreneurs constitute a significant share of all entrepreneurs throughout many countries (e.g., Bosma et al., 2008), and they can be found in all entrepreneurial stages, especially in the transitions into and out of entrepreneurship (Folta et al., 2010; Raffiee and Feng, 2014). Hybrid entrepreneurs are commonly categorized depending on whether they remain in the hybrid state (*persistent hybrids*) or transit into full-time entrepreneurship (*transitory hybrids)* (Viljamaa and Varamäki, 2015; Viljamaa et al., 2017). The latter relates to hybrid entrepreneurship as a feature of nascent entrepreneurship (Folta et al. 2010). More than half of nascent entrepreneurs start their business while still being wage employed (Reynolds et al., 2004; van Gelderen, et al., 2005; Bosma et al., 2008; Burke et al., 2008; Campbell and De Nardi, 2009) and are thus to be considered hybrid entrepreneurs. Hybrid entrepreneurship is often referred to as a two-stage process: the first step captures the decision to transition from wage employment to hybrid entrepreneurship; the second step captures the decision to transition from hybrid entrepreneurship to full-time entrepreneurship (Thorgren et al., 2016). Entry into hybrid entrepreneurship is different to entry into self-employment or wage labour: individuals choose the hybrid path with the intention to supplement income, seek nonmonetary benefits, or transition to full-time entrepreneurship (Folta et al., 2010). The decision to undertake hybrid entrepreneurship is fundamentally influenced by an individual's uncertainty concerning their entrepreneurial context, their human capital, and their switching costs. Folta et al. (2010), for

example, have found evidence that individuals working in larger firms and having less entrepreneurship experience, higher opportunity costs, higher human capital, and higher switching costs in terms of greater industry tenure prefer hybrid entry to self-employment entry. In a related vein, Raffiee and Feng (2014) have found that individuals who are risk averse and have low core self-evaluation are more likely to enter hybrid entrepreneurship than they are to enter full-time self-employment. This suggests that risk aversion is an important determiner of how individuals enter self-employment. To observe the entry into self-employment, our paper focuses on the second step of the two-stage process – the decision to transition from hybrid entrepreneurship to full-time entrepreneurship.

### *4.2.2 Social Capital, Risk, and the Decision to Become an Entrepreneur*

An individual's occupational choice of entrepreneurship does not occur in a social vacuum but is strongly influenced by the family and the household context (among other external factors). This shapes the constraints, resources, and motivations, as well as – ultimately – the individual's decision-making behaviour (Özcan, 2011). Constituting the smallest micro-unit of the socio-economic environment, the couple relationship particularly affects occupational choices (Özcan, 2011). Individuals generally consider not only their own but also the needs and preferences of their life partners. Thus, the type of employment of one life partner influences the type of employment of the other (e.g., Bradbury et al., 1986; Blossfeld and Drobnic, 2001; Verbakel and De Graaf, 2008 and 2009). Moreover, social capital has been proven to be an immensely important factor for the decision to start a business as well as for the nascent entrepreneurs' success (Davidsson and Honig, 2003). Social capital is present in existing network relationships that provide resources and information more cheaply than at market prices (Davidsson and Honig, 2003; Semrau and Werner, 2012 and 2014). The family – especially the life partner – is a strong network tie that can provide emotional and financial support as well as knowledge spill-overs (Davidsson and Honig, 2003). In line with this, the

findings of Özcan (2011) suggest that being married increases the likelihood of entering entrepreneurship as a main occupation for women and men because of such social capital effects.

There is a positive relationship between life partners and the occupational choice of entrepreneurship (Parker, 2008). Besides social capital theory, which is central to our study, literature also has used the positive assortative mating rationale (e.g., Mare, 1991; Kalmijn and Flap, 2001; Brown et al., 2006; Ermisch, et al., 2006; Andersson and Hammarstedt, 2010; Dohmen et al., 2005) to explain this positive correlation. According to this theory, individuals are more likely to group with individuals with similar characteristics to themselves (Andersson and Hammarstedt, 2010). Empirical studies grounded on this rationale have shown that self-employment propensity acts as a sorting mechanism: individuals similarly inclined to self-employment are more likely to be in a relationship (Bruce, 1999). Entrepreneurial households differ from wage employed households regarding risk aversion and decision making (Carter, et al., 2017). The career pathway of starting a business is generally associated with risk (Mueller, 2006). Risk as a characteristic of the entrepreneurial business must be distinguished from the risk attitude of the entrepreneur as an individual. Previous studies have found that entrepreneurs are usually less risk averse than employees (Mueller, 2006), and those with higher risk aversion are less likely to opt for full-time entrepreneurship (Raffiee and Feng, 2014). Following Sitkin and Pablo (1992), decision-making behaviour is affected by risk propensity and risk perception. According to Weingart and Sitkin (1995: 1575), risk propensity is ‘an individual’s current tendency to take or avoid risks’. Wennberg et al. (2006) propose that a stepwise entry into entrepreneurship (by remaining in wage employment and acting as a hybrid entrepreneur) is motivated by a risk-sharing effect, favoured by more risk-averse individuals. Compared to full entry intro entrepreneurship, hybrid entrepreneurship requires less start-up capital, less time investment, and no abandonment of the secure main job (Petrova, 2012). Furthermore, hybrid

entrepreneurship enables individuals who regard their hybrid business as a first step towards full-time self-employment to first test entrepreneurial environments. Assuming that informational asymmetries pose a threat to a new venture's success (Backes-Gellner and Werner, 2007), testing entrepreneurial markets via hybrid entrepreneurship allows individuals to gain and develop knowledge about entrepreneurial abilities and to assess the business idea in the context of the market. Through this, the individual can learn about the pitfalls and potentials of entrepreneurship and can undertake adjustments and refinements before committing full time (Wennberg et al., 2006). Hybrid entrepreneurship allows the individual to make small and less-intensive initial commitments (Folta et al., 2010). Initially, individuals prefer to spend only a small amount of time and capital on the business, avoiding the risk of financial pitfalls if the business and personal potential turns out to be low. Then, time and capital are increasingly invested depending on the entrepreneur's level of expectation that the new business idea has potential for success. This potential is reassessed after a certain period (Petrova, 2010a and 2010b).

If hybrid entrepreneurship mitigates the risk of failure in entrepreneurship (in comparison to a direct switch from wage employment into full-time entrepreneurship), the question remains as to whether and how social capital provided by the life partner affects the two routes into full-time entrepreneurship. It can be argued that life partners provide emotional support (Bosma et al., 2004) and can reduce the partner's doubts by providing objective opinions and emotional attention. Consequently, the life partner can act encouragingly (Werbel and Danes, 2010). Furthermore, the life partner can contribute with voluntary work in the venture as well as with financial resources to secure liquidity. Capital provided by the life partner also positively impacts the ability to obtain further start-up loans from external financial suppliers (Davidsson and Honig, 2003; Werbel and Danes, 2010; Semrau and Werner, 2012 and 2014). In sum, social- and financial capital provided by the life partner reduces uncertainty, risk, and fear of

failure. Social capital provided by the life partner therefore positively impacts the risk perception of the individual. Assuming that a direct switch to entrepreneurship is associated with higher risk compared to an indirect switch from hybrid entrepreneurship, we propose that emotional, financial, and physical support of the life partner and the possibility to share risks are important for switching into full entrepreneurship. We therefore propose the following hypothesis:

*Hypothesis 1a (H1a): The presence of a life partner shows higher positive effects for a direct transition into full-time entrepreneurship than for the indirect route via hybrid entrepreneurship.*

Research drawing on social capital theory has also emphasised that when life partners have similar types of employment, transfers of social capital have increased benefits. In this case, life partners can more easily draw on each other's resources through the direct and indirect provision of additional skills, knowledge, experiential learning, motivation, and networks (e.g., Caputo and Dolinsky, 1998; Taniguchi, 2002; Budig, 2006; Parker, 2008; Verbakel and De Graaf, 2008; Danes et al., 2009). Thus, when investigating the effect of the life partner's role on the propensity of individuals to enter entrepreneurship, the life partner's characteristics in terms of social capital should be considered. The presence of social capital – in the form of people who advise on how to behave or who to contact when things do not work as planned – is associated with a reduction of uncertainty (Aldrich et al., 1989). In general, a life partner who participates in the labour market acquires more social capital than a non-working life partner. This positively affects the quantity of possible social capital exchange of the couple and the partner's success in the labour market (Bernardi, 1999; Özcan, 2011). A self-employed life partner who has already established a network of social contacts (e.g., suppliers, tax consultants, financial suppliers) provides additional valuable social capital for entrepreneurship. For entrepreneurial couples, the presence of knowledge spill-overs impacts the life partners' choice in favour of entrepreneurship (Parker, 2008). Moreover, a self-employed life partner possesses

the job flexibility and autonomy to enable both members of the couple to specialise and participate in the labour market (Özcan, 2011). Thus, we propose the following hypothesis:

*Hypothesis 1b (H1b): Compared to individuals with life partners in other occupations, individuals with entrepreneurial life partners are more likely to switch directly into full-time entrepreneurship than via hybrid entrepreneurship.*

### *4.2.3 Gender-Related Differences in the Choice of Routes for Entrepreneurship*

Previous research has shown that men and women differ in their labour market behaviour (Panos et al., 2014). This difference can largely be explained by societal norms regarding women's dominant role in family responsibilities. Empirical studies, for example, have shown that women spend much more time than men in household activities and child-rearing and are more willing to quit their paid jobs or take on secondary or part-time jobs for family-related reasons (Hersch and Stratton, 1997; Theodossiou, 2002; Grosch et al., 2006; Amuedo-Dorantes and Kimmel, 2009). Moreover, in comparison to men, women have to interrupt their jobs for child-rearing more often, which negatively impacts their membership in job-related networks. This can result in a loss of social capital (Brush, 1998). Women and men also exhibit differences in entrepreneurship behaviour: prior studies have observed that factors affecting entrepreneurial behaviour – be it micro-economically (e.g., Caputo and Dolinsky, 1998; Taniguchi, 2002) or macro-economically (e.g., Block et al., 2018) – differ by gender (e.g., Georgellis and Wall, 2000; Budig, 2006; Langowitz and Minniti, 2007; Burke et al., 2008; Costin, 2012; Dabic et al., 2012; Wall, 2015). This leads to gender-specific entrepreneurial propensities (Burke et al. 2008; Hoerisch et al., 2017).

Significant gender differences also exist when focusing on the drivers of hybrid entrepreneurship. Atherton et al. (2016) have shown that women are more likely than men to choose self-employment to achieve greater flexibility in work for the sake of non-work-related tasks but are less likely to be hybrid entrepreneurs if their partner is working. Being a hybrid

entrepreneur thus reflects a low capitalisation of women's businesses (Hundley, 2001). This is also supported by Eliasson and Westlund (2013), who have found a negative effect on hybrid entrepreneurship for women with a partner with high annual earnings. Men, however, seem to be unaffected by their partners' earnings concerning their decision to be hybrid entrepreneurs. However, they are more likely than women to be hybrid entrepreneurs to pay housing costs (Atherton et al., 2016). Several studies also have indicated that women are less willing to face uncertain levels of income, revealing more risk-averse behaviour compared to men (Sexton and Bowman-Upton, 1990; Jianakopolos and Bernasek, 1998; Caliendo et al., 2009). Moreover, women perceive barriers associated with the acquisition of necessary capital more negatively than men, which can also be regarded as a proxy for a gender effect on risk perception (Roper and Scott, 2009). Along this line of thought, Brush (1998: 160) indicates that different 'social structures in work, family and social life' of women certainly affect their endowment of human and social capital, resulting in a real disadvantage for women in terms of raising capital – they are perceived as a riskier entrepreneurial group (Brush, 1998). Based on empirical results of gender-related differences in decision-making behaviour, for the more risk averse women (in comparison to men), social capital provided by having a life partner who is furthermore also self-employed might be more important due to the reduction of risk. We expect that the aforementioned assumptions described in H1a and H1b are stronger for women compared to men. Therefore, for women, we expect the following:

*Hypothesis 2a (H2a): In comparison to men, for women, the presence of social capital provided by the life partner shows higher positive impacts on the probability of a direct and indirect switch to self-employment.*
*Hypothesis 2b (H2b): For women, the expected difference in the presence of social capital related to a direct versus an indirect switch is more pronounced than for men.*

## 4.3 Methodology

### *4.3.1 Sample*

To test our hypotheses, we used data from the GSOEP – a representative panel survey of private households in Germany, conducted annually with 30,000 respondents. We used data on the Cross-National Equivalent File (CNEF) with extended income information (PEQUIV), the person-related generated status (PGEN), and the individual question module (PL) from the years 1993 to 2016. The data set contains detailed information on the relevant topics of demographics, employment, income, and satisfaction indicators. Furthermore, through its panel structure, it allows researchers to exploit information for each year and to observe individuals over several waves. The plausibility of the data is longitudinally validated, making GSOEP a superior source for panel analysis.

### *4.3.2 Variables*

Table 4.1 describes the dependent, independent, and control variables.

***Table 4.1:*** *Description of Variables*

| Variables | Description |
|---|---|
| *Dependent variable:* | |
| Occupational choice | |
| Direct entry into self-employment | Transition from wage employment to self-employment: Binary variable (1=Transition; 0= No transition/Persistence in wage employment) |
| Indirect entry into self-employment | Transition from hybrid entrepreneurship to self-employment: Binary variable (1=Transition; 0= No transition/Persistence in hybrid entrepreneurship) |
| *Independent variables:* | |
| Life partner | Existence of life partner in previous year: Binary variable (1= Life partner; 0= No life partner) |
| Life partner occupational position | Occupational position of life partner in previous year: Categorical variable with 3 characteristics (2=self-employed; 1=wage employed; 0= not employed/registered unemployed) |
| *Control variables:* | |
| Age | Age: Metric variable in years |
| Educational attainment | Number of years of education: Metric variable in years |
| Self-rated health status | Self-rated health status in previous year: 5-Likert scale variable (1=excellent to 5=poor) |
| Wages and salary | Logged wages and salary from main wage employment in previous year: Metric variable in Euro |
| Job satisfaction | Satisfaction with work in previous year: 11-Likert scale variable (0=completely dissatisfied to 10=completely satisfied) |
| Life partner educational attainment | Number of years of education completed by the life partner: Metric variable in years |
| Children | Number of children in the household: Metric variable in numbers |

*Dependent Variable*

The dependent variable is the occupational choice of the individual. Following Folta et al. (2010), we distinguished between wage labour, hybrid entrepreneurship, and self-employment. We used information on the employment status, the occupational position of the primary job, and income from self-employment. The variable of employment status separates employed individuals from non-employed individuals in their main occupation. As we are interested in individuals who are employed, we excluded individuals with employment status of 'vocational training', 'not employed', or 'sheltered workshop'. This left individuals who stated that they were 'full-time employed', 'regular part-time employed', or 'marginal, irregular part-time employed' (in Germany, this constitutes 'Mini-Jobs', where the monthly income does not exceed EUR 450) as their main occupation. In GSOEP, the occupational position of the primary job is defined by the survey participants` subjective assessment. Other criteria, such as the time allocation, the proportion of income generated from the main job, or tax considerations do not constitute defining elements for the main job in GSOEP. Regarding the occupational position, we excluded the categories 'not employed', 'in education', 'registered unemployed', 'pensioner', 'military or community service', and 'apprentice'. We defined 'manual labourers', 'employees', and 'civil servants' as wage employed individuals. We defined 'self-employed' as self-employed individuals. Within the category of 'self-employed', we excluded farmers and helping hands in family businesses, as they are unlikely to have a significant economic effect (Gruenert, 1999), are difficult to compare with other jobs, and thus might cause potential selection bias (Arum and Mueller, 2004). The category of 'self-employed' thus contains individuals who are freelancers, self-employed without employees, and self-employed with employees. Self-employment is a frequently used proxy for entrepreneurship in empirical research (Parker, 2009).

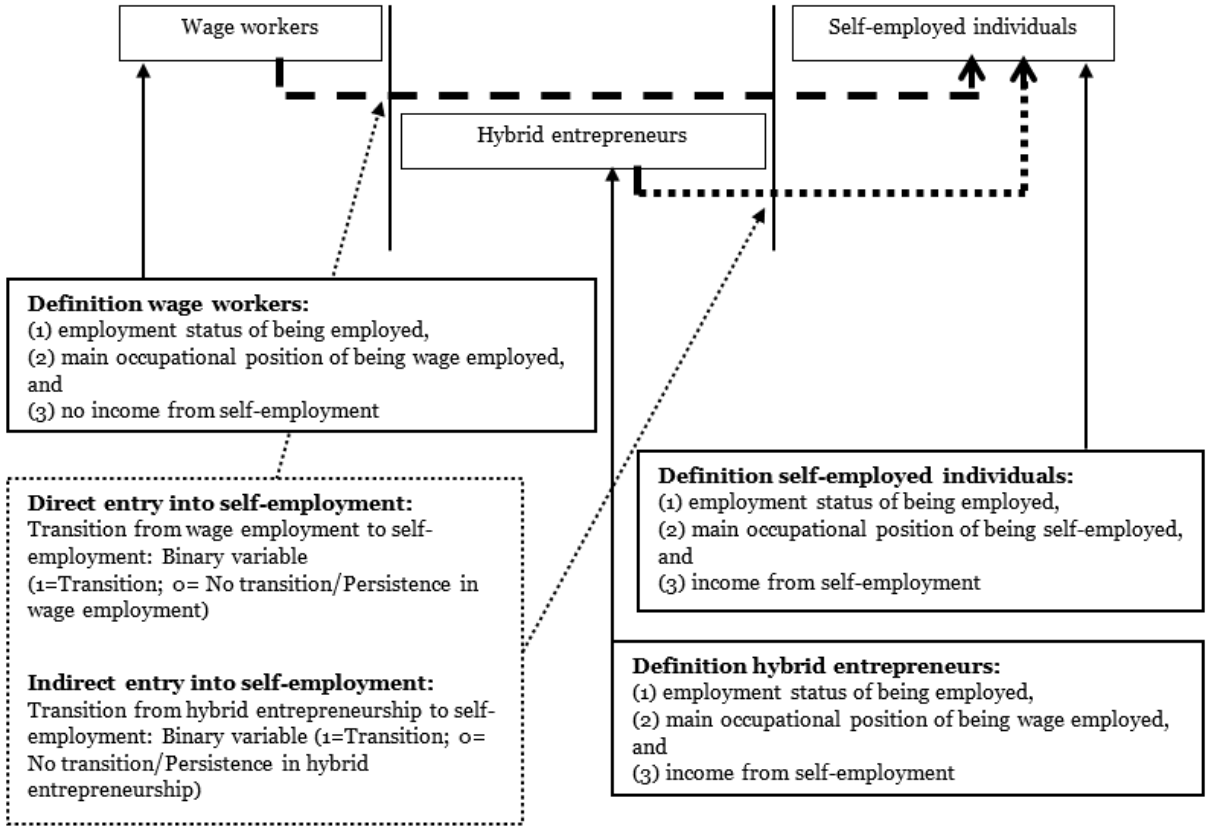
To further define our sample, we used information about income from self-employment. The variable of income from self-employment is the product of the number of months that income was received in the previous year. To bypass the time-matching problem of having the employment status and the occupational position from the survey year, but the income from self-employment from the previous year, we leaded the variable on income from self-employment in our analysis. We excluded zero values because of our focus on employed individuals. Furthermore, income above the threshold of EUR 200,000 was not considered because of some unrealistically high values. Income from self-employment is self-reported in GSOEP. From past studies, this is known to be quite unreliable (e.g., Blanchflower and Oswald, 1998).

Individuals in our sample were considered hybrid entrepreneurs if they, in any given year, had (1) an employment status of being employed, (2) a main occupational position of being wage employed, and (3) income from self-employment. For hybrid entrepreneurship, Folta et al. (2010) emphasise that wage employment should be the main occupation and self-employment the secondary occupation. Apart from this condition, 'hybrid entrepreneurship' is a relatively inclusive term. It does not oblige any consideration of the criteria of time allocation between both jobs (compare to Petrova 2005, 2010a, 2010b, and 2012), or the proportion of income generated from the entrepreneurial activity (compare to Mungaray and Ramirez-Urquidy, 2011). In some few waves, GSOEP collects information on regular and irregular secondary jobs, as well as the occupational classification of secondary jobs. We considered including this combined information as a fourth condition to define hybrid entrepreneurs, but we found a limitation: the variable on regular and irregular secondary jobs did not distinguish between whether the secondary job was in wage employment or self-employment. Furthermore, we found a limitation to the occupational classification of the secondary jobs: it offers unlimited classifications, again with no distinction between wage employment and self-employment.

Even a combination of information could not clarify the source of income from self-employment, so we refrained from using these items. Individuals in our sample were considered self-employed if they, in any given year, had (1) an employment status of being employed, (2) a main occupational position of being self-employed, and (3) income from self-employment. Finally, individuals in our sample were considered wage workers if they, in any given year, had (1) an employment status of being employed, (2) a main occupational position of being wage employed, and (3) no income from self-employment.

For our regression analysis, we used the panel structure of the data and constructed two transition variables. The first transition variable depicted the switch from wage employment to self-employment. The variable took the value 0 if an individual did not transition or remained in wage employment when comparing *t*-1 to *t*. The variable took the value 1 if an individual transitioned from wage employment in *t*-1 to self-employment in *t*. The second transition variable depicted the switch from hybrid entrepreneurship to self-employment. The variable took the value o if an individual did not transition or remained in hybrid entrepreneurship when comparing *t*-1 to *t*. The variable took the value 1 if an individual transitioned from hybrid entrepreneurship in *t*-1 to self-employment in *t*. The following figure provides an overview of the underlying items and depicts how we constructed the transition variables:

***Figure 4.1**: Operationalization of the Variable*




*Independent Variables*

*Our independent variables are the existence of a cohabiting life partner and the life partner's* occupational position. Both our independent variables are lagged one year. To capture the existence of a life partner, we constructed a dummy variable. Our variable took the value 1 if an individual had a cohabiting life partner. It took the value 0 if an individual did not have a cohabiting life partner. To analyse how family characteristics affect the likelihood of self-employment, most studies use marital status. A common method is to construct a dummy variable and equal singlehood of cohabitation, being divorced or widowed, or being unmarried (Özcan, 2011). This equalisation is questionable given the distinctive characteristics of each family status regarding the provision of financial and nonfinancial resources, social shifts regarding the participation of women in the labour force (Stevenson and Wolfers, 2007), and demographic shifts regarding the average age at time of marriage (Teachman et al., 2013). There are now a broad range of family circumstances where unmarried couples cohabit. Scholars have

recently found that there is no difference between married and cohabiting couples in terms of the life partners' influence on upward mobility (Verbakel and De Graaf 2009). Thus, cohabiting life partners can also influence an individual's occupational choice independent of the marital status (Arum, 1997; Bernardi, 1999; Brown et al., 2006; Budig, 2006; Parker, 2008). In the special case of risky entrepreneurship, the life partner can provide stability and a safety net (Le 1999; Hess, 2004; Brown et al., 2006). We therefore suggest that an intra-household relationship is now more relevant than marital status when it comes to how life partners provide the context in which entrepreneurial decisions and behaviour unfold and the existence of intra-couple influences in form of social capital transfer on an individual's occupation. Our data allowed us to match life partners within the household, independent of the marital status. We used this cohabitation information to construct our first independent variable. To account for the life partner's occupational position, we constructed a categorical variable with three characteristics. The variable took the value 0 if the life partner was not employed or registered unemployed, it took the value 1 if the life partner was wage employed, and it took the value 2 if the life partner was self-employed.

There is a time-matching issue between our dependent and independent variables. The dependent variable of occupational choice occurred at some point in time during the period between *t*-1 and *t*, whereas we measured the independent variables of the existence of a life partner and the life partner's occupational position at time *t*-1. If an individual switched occupation multiple times in one year, our model would yield imprecise results due to the time lag between the dependent and independent variables. However, we believe that such an occupational vacillation is a rare event in our sample, so our model should be able to depict the relationship between our variables appropriately.

*Control Variables*

We included several control variables which are frequently used in (hybrid) entrepreneurship research, and which might act as confounders if excluded from the analysis. We controlled for the individual-level variables of age, educational attainment, self-rated health status (lagged one year), wages and salary from main wage employment (lagged one year), and job satisfaction (lagged one year). We also controlled for the life partner's educational attainment and the number of children in the household. Except for wages and salary from main wage employment, we did not test for nonlinear impacts. In the following, we summarise relevant findings on nonlinear relationships from past studies and show that they are often ambiguous due to counterarguments. Testing all nonlinear effects would thus not carry weight for conclusive results and would go beyond the scope of this study.

In our sample, we consider individuals aged 18–67 as this is the age span of most individuals within the labour market. Studies on the first step of self-employment entry have found that age impacts the transition (Singh and DeNoble 2003; Lévesque and Minniti 2006; Kautonen, Down, and Minniti 2014) and that this relationship is either linear (Lévesque and Minniti, 2006) or an inverted U-shaped relationship (Kautonen et al., 2014). The latter means that the probability of an individual to become an entrepreneur increases with age up to a certain threshold and decreases thereafter (Lévesque and Minniti, 2011). Recent studies on the second step of self-employment entry have noticed a U-shaped relationship between a hybrid entrepreneur's age and the intention to enter full-time entrepreneurship: younger and older hybrid entrepreneurs are more likely than middle-aged individuals to become full-time entrepreneurs (Thorgren et al. 2016). Interestingly, this contrasts with the other aforementioned studies. There are various ideas regarding older individuals' engagement in entrepreneurship, tied to the opportunities to start a business on the one hand and the willingness to do so on the other hand (Van Praag and Van Ophem, 1995; Blanchflower et al., 2001). Concerning opportunities, older people may

have better access to human, financial, and social capital and may have accumulated more entrepreneurial resources, such as experience and knowledge (Singh and DeNoble 2003; Weber and Schaper 2004). Concerning willingness, there are opposing rationales: there may be a declining willingness to become self-employed with increasing age, which can be explained by the opportunity cost of time (Lévesque and Minniti 2011), higher risk aversion, lower physical abilities (Kautonen et al. 2014), and less time for amortisations of initial investments (Hintermaier and Steinberger 2005). However, there may also be an increasing willingness for older people to move to self-employment, related to the phenomenon of bridge employment – paid work done after retirement (Kerr and Armstrong-Stassen, 2011; Van Solinge, 2014). A major motivation for this career change is to have more flexible working conditions to achieve a better work-life balance and a safeguard of health (Cahill, Giandrea, and Quinn, 2013).

The relationship between educational attainment as an indicator for human capital endowment and the transition to entrepreneurship has yielded inconclusive theoretical and empirical findings (e.g., Clark and Drinkwater, 2000; Blanchflower, 2004; Kim et al., 2006; Van Der Sluis, et al., 2008). Higher education can increase human capital, access to financial capital (Evans and Jovanovic, 1989), abilities to identify opportunities, and also skills in making managerial decisions (Lucas, 1978), all of which favour the occupational choice of self-employment. However, higher education also correlates with a higher salary. Assuming that this comes along with a high degree of specialisation, this can impede self-employment (Blanchflower, 2000). A recent theoretical framework has considered an underlying U-shaped relationship, meaning that individuals with low or high levels of education are more likely to enter entrepreneurship than individuals with intermediate levels of education (Poschke, 2013). This consideration can be justified when considering differences in motivations of individuals (Simoes et al., 2016). The occupational choice of being an entrepreneur is generally either opportunity- or necessity-driven. While less-educated individuals tend to transition into self-

employment as a form of last resort (e.g., to avoid unemployment), individuals with higher levels of education tend to do so to pursue opportunities (Von Greiff, 2009). The educational attainment of the life partner typically serves as an indicator for human and social capital resources (Özcan, 2011). Previous research has indicated a positive relationship between an individual's self-employment and their partner's education level, as a partner's education may enhance knowledge transfers (Parker, 2008) and increase the family's human capital when entrepreneurial activity occurs in family businesses (Sanders and Nee, 1996). In our study, we operationalised both the educational attainment of the individual and that of the life partner as the number of years of education completed. The value of this variable ranged from 7 to 18 and was generated by GSOEP (Grabka, 2016). Individuals with no degree were assigned 7 to 8 years. A school leaving degree were assigned between 9 and 12 years of education. Individuals with a vocational degree were assigned an additional 2 to 3.5 years. Individuals who attended a technical college were assigned an additional 4 years. A vocational college or university degree equated to a total of 18 years of education (the construction of this variable follows Couch 1994).

Literature on the relationship between health and entrepreneurial entry is scarce (e.g., Pagán, 2009; Jones and Latreille, 2011). Most studies have considered health status as a control variable (e.g., Caputo and Dolinsky, 1998). There is mixed evidence, with some studies indicating a positive relationship between poor health and self-employment (Borjas 1986; Zissimopoulos and Karoly, 2007; Pagán, 2009; Jones and Latreille, 2011) and others revealing negative associations (Taylor, 2001; Parker and Rougier, 2007; Cahill et al., 2013). The ambiguous findings derive from different proxies used to access health status and also from differing ages of the sample groups (Simoes et al., 2016). Within GSOEP, respondents answered the question about health status on an ordinally scaled, five-point Likert scale ranging from 1 (excellent) to 5 (poor); this is the proxy considered in our study.

We used wages and salary from main wage employment to account for effects of income on the occupational choice. The decision to switch occupation, especially from wage employment to self-employment, may cause substantial irrecoverable switching costs, like opportunity costs from sacrificing wage income (Dixit and Rob, 1994; O'Brien et al., 2003; Folta et al., 2010). Wages or salary from the main job is the product of the number of months that income was received and the average amount per month. We excluded values below EUR 5,400 because of our focus on employed individuals. This threshold represents the annual wage or salary of 'Mini-Job' holders. It seems implausible that individuals are employed for lower wages and salary in Germany. Furthermore, we did not consider income above the threshold of EUR 200,000 because of some unrealistically high values. We used the logarithm of this income variable, assuming that a change in the proportion of income would lead to the same change in proportion in occupational choice (Easterlin, 2001; Layard, Mayraz, and Nickell, 2008; Stevenson and Wolfers, 2008).

Past studies have emphasised that employees with lower job satisfaction but high levels of human, social, and financial capital are more likely to switch to entrepreneurship (Budig, 2006). Domain-specific life satisfaction in GSOEP was initially measured with seven items (1984 to 1990), and since 2008 it has been measured with ten items. We used the single item of job satisfaction as a proxy measure for satisfaction derived from work. Respondents were asked about their satisfaction with their work. They gave answers on an ordinally scaled, 11-point Likert scale ranging from 0 (lowest satisfaction) to 10 (highest satisfaction).

We also controlled for the number of children in the household – persons in the household under the age of 18 at the time of the survey. The value of this variable ranged from 0 to 10. Parenthood is negatively correlated with the likelihood of entrepreneurship (Simoes et al., 2016). It has a negative impact when an individual considers the struggle to balance the demands of family and self-employment to be too great (Fairchild, 2009; Sena et al., 2012) and

when family responsibilities increase risk aversion (Simoes et al., 2016). However, it has a positive impact when an individual considers entrepreneurship as a means to achieve greater independence and flexibility and a better balance of competing domestic and employment responsibilities (Caputo and Dolinsky, 1998; Bruce, 1999; Lin et al., 2000; Lombard, 2001; Brown et al., 2006; Wellington, 2006).

### *4.3.3 Analytical Procedure*

The GSOEP contains multiple observations over time of the involved individuals and thus depicts a panel data set. The Hausman test (Hausman 1978) can be used to specify the performance of a fixed-effects model. Fixed-effects models are a common method to analyse longitudinal data (Schurer and Yong, 2012; Vaisey and Miles, 2017). Such models account for unobservable or simply unobserved effects that do not change over time (i.e., they are fixed). Thus, the use of panel data allows researchers to control for time-invariant characteristics (e.g., birthplace, gender, genetic disposition, etc.) that are measured or not. By doing so, the risk of biased results through excluded predictor variables is reduced. The elimination of fixed effects can be achieved through various techniques (e.g., Wooldridge, 2006). We applied the within-transformation: the mean of all variables was subtracted from each actual observation (Wooldridge 2006). As each of our dependent variables is dichotomous (individuals transition or they do not transition) and to account for fixed effects, we used fixed-effects logit models, alternatively called conditional fixed-effects models (StataCorp., 2015). Such models differ from ‘normal’ logistic regressions in that they calculate the likelihood in relation to each group, that is, in relation to each individual over time, thus accounting for individual fixed effects that do not vary over time. To account for possible heteroskedasticity and autocorrelation, we computed robust standard errors using the Huber/White/sandwich estimator (StataCorp., 2015). Moreover, all variables were tested for multicollinearity by computing pairwise correlations and variance inflation factors (VIF; Wooldridge 2006). The correlations and VIF values do not

lead to multicollinearity concerns (Hill and Adkins, 2001).

## 4.4 Results

Our first sample which considers both, singles and individuals with life partners, contains 557 individuals (3,621 observations), including 283 individuals (1,899 observations) who have indirectly entered entrepreneurship and 274 individuals (1,722 observations) who have directly entered entrepreneurship. About 75% of the direct entrants are individuals with life partners and about 78% of the indirect entrants are individuals with life partners. Our second sample which considers only individuals with life partners contains 327 individuals (2,117 observations), including 167 individuals (1,115 observations) who have indirectly entered entrepreneurship and 160 individuals (1,002 observations) who have directly entered entrepreneurship. Table 4.2 reports the descriptive statistics for the direct entrants. Table 4.3 reports the descriptive statistics for the indirect entrants.

***Table 4.2:*** *Descriptive Statistics for Direct Entrants*

| Variables | Mean | Std. Dev. | Min | Max |
|---|---|---|---|---|
| Direct entry into self-employment | .16 | .37 | 0 | 1 |
| Age | 40.74 | 8.83 | 21 | 65 |
| Educational attainment | 13.5 | 2.87 | 7 | 18 |
| Self-rated health status | 2.32 | .81 | 1 | 5 |
| Wages and salary | 34519.5 | 23845.36 | 5400 | 153388 |
| Job satisfaction | 7.23 | 1.83 | 0 | 10 |
| Life partner educational attainment | 13.08 | 2.95 | 7 | 18 |
| Children | 1.05 | 1.01 | 0 | 4 |
| Life partner unemployed | .21 | .41 | 0 | 1 |
| Life partner wage employed | .62 | .48 | 0 | 1 |
| Life partner self-employed | .16 | .37 | 0 | 1 |

Note: These descriptive statistics refer to our first main model (Model 2 in Table 6)

***Table 4.3:*** *Descriptive Statistics for Indirect Entrants*

| Variables | Mean | Std. Dev. | Min | Max |
|---|---|---|---|---|
| Indirect entry into self-employment | .15 | .36 | 0 | 1 |
| Age | 41.59 | 8.59 | 23 | 67 |
| Educational attainment | 13.63 | 2.88 | 7 | 18 |
| Self-rated health status | 2.34 | .79 | 1 | 5 |
| Wages and salary | 36087.72 | 23794.35 | 5400 | 159600 |
| Job satisfaction | 7.1 | 2.21 | 0 | 10 |
| Life partner educational attainment | 12.86 | 2.77 | 7 | 18 |
| Children | 1.25 | 1.1 | 0 | 5 |
| Life partner unemployed | .25 | .43 | 0 | 1 |
| Life partner wage employed | .67 | .47 | 0 | 1 |
| Life partner self-employed | .08 | .28 | 0 | 1 |

Note: These descriptive statistics refer to our second main model (Model 4 in Table 6)

Table 4.4 shows the correlation matrix for the direct entrants. Table 4.5 reports the correlation matrix for the indirect entrants.

Table 4.6 shows the overall results of the logistic regression models for the direct and indirect transition to self-employment without any differentiation by gender.

***Table 4.4:*** *Correlation Matrix for Direct Entrants*

| Variables | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| (1) Direct entry into self-employment | 1.00 | | | | | | | | | | |
| (2) Age | 0.01 | 1.00 | | | | | | | | | |
| (3) Educational attainment | 0.00 | 0.12*** | 1.00 | | | | | | | | |
| (4) Self-rated health status | -0.02 | 0.19*** | -0.14*** | 1.00 | | | | | | | |
| (5) Wages and salary | -0.05* | 0.14*** | 0.32*** | -0.11*** | 1.00 | | | | | | |
| (6) Job satisfaction | 0.06* | -0.04 | -0.03 | -0.26*** | 0.03 | 1.00 | | | | | |
| (7) Life partner educational attainment | 0.00 | 0.16*** | 0.66*** | -0.05 | 0.16*** | -0.02 | 1.00 | | | | |
| (8) Children | 0.04 | -0.22*** | 0.07** | -0.08** | 0.14*** | -0.02 | 0.00 | 1.00 | | | |
| (9) Life partner unemployed | -0.01 | -0.08*** | -0.05* | -0.01 | 0.15*** | 0.06* | -0.19*** | 0.26*** | 1.00 | | |
| (10) Life partner wage employed | 0.01 | -0.07** | -0.02 | -0.02 | -0.10*** | -0.11*** | 0.03 | -0.21*** | -0.67*** | 1.00 | |
| (11) Life partner self-employed | 0.00 | 0.19*** | 0.08** | 0.03 | -0.04 | 0.08** | 0.17*** | -0.01 | -0.23*** | -0.57*** | 1.00 |

Note: This correlation matrix refers to our first main model (Model 2 in Table 6); * p<=0.1; ** p<=.05; *** p<=.01

***Table 4.5:*** *Correlation Matrix for Indirect Entrants*

| Variables | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| (1) Indirect entry into self-employment | 1.00 | | | | | | | | | | |
| (2) Age | 0.05 | 1.00 | | | | | | | | | |
| (3) Educational attainment | 0.03 | 0.20*** | 1.00 | | | | | | | | |
| (4) Self-rated health status | -0.01 | 0.19*** | -0.04 | 1.00 | | | | | | | |
| (5) Wages and salary | 0.02 | 0.23*** | 0.18*** | -0.02 | 1.00 | | | | | | |
| (6) Job satisfaction | -0.06** | 0.00 | 0.00 | -0.36*** | 0.07** | 1.00 | | | | | |
| (7) Life partner educational attainment | 0.02 | 0.09*** | 0.65*** | 0.01 | 0.01 | -0.02 | 1.00 | | | | |
| (8) Children | 0.05* | -0.29*** | 0.03 | -0.05* | -0.03 | 0.05 | -0.04 | 1.00 | | | |
| (9) Life partner unemployed | -0.02 | -0.12*** | -0.08*** | -0.08*** | 0.07** | 0.08*** | -0.20*** | 0.27*** | 1.00 | | |
| (10) Life partner wage employed | 0.01 | 0.09*** | 0.02 | 0.08** | 0.00 | -0.10*** | 0.11*** | -0.27*** | -0.81*** | 1.00 | |
| (11) Life partner self-employed | 0.02 | 0.03 | 0.10*** | -0.01 | -0.11*** | 0.05 | 0.12*** | 0.05* | -0.17*** | -0.43*** | 1.00 |

Note: This correlation matrix refers to our second main model (Model 4 in Table 6); * p<=0.1; ** p<=.05; *** p<=.01

***Table 4.6:*** *Results of Conditional Fixed-Effects Logistic Regression for All Individuals*

| | **Model 1** | | | **Model 2** | | | **Model 3** | | | **Model 4** | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **Direct Entry into Self-Employment** | | | | | | **Indirect Entry into Self-Employment via Hybrid Entrepreneurship** | | | | | |
| | Odds ratio | Sig | Std. error | Odds ratio | Sig | Std. error | Odds ratio | Sig | Std. error | Odds ratio | Sig | Std. error |
| Age | 1.147 | *** | (.037) | 1.198 | *** | (.056) | 1.116 | *** | (.031) | 1.215 | *** | (.056) |
| Educational attainment | 1.030 | | (.149) | .637 | | (.255) | 1.537 | ** | (.276) | 1.389 | | (.329) |
| Self-rated health status | .861 | | (.104) | .873 | | (.142) | .923 | | (.131) | .815 | | (.196) |
| Wages and salary | .593 | ** | (.123) | .573 | ** | (.147) | .121 | *** | (.031) | .097 | *** | (.036) |
| Job satisfaction | .863 | *** | (.041) | .889 | * | (.055) | .802 | *** | (.040) | .795 | *** | (.057) |
| Life partner educational attainment | . | . | . | .615 | | (.262) | . | . | . | .964 | | (.258) |
| Children | 1.825 | *** | (.384) | 2.218 | *** | (.679) | .991 | | (.200) | 1.204 | | (.373) |
| **Life partner** | .914 | | (.308) | . | . | . | 1.318 | | (.551) | . | . | . |
| **Life partner occupational position** | | | | | | | | | | | | |
| Not employed/registered unemployed | . | . | . | 1.041 | | (.382) | . | . | . | 1.350 | | (.647) |
| Wage employed (=reference category) | . | . | . | . | . | . | . | . | . | . | . | . |
| Self-employed | . | . | . | .288 | * | (.196) | . | . | . | 3.150 | | (3.184) |
| Pseudo r-squared | .075 | | | .107 | | | .279 | | | .360 | | |
| Chi-square | 36.66 | | | 34.16 | | | 93.89 | | | 61.03 | | |
| Number of individuals | 274 | | | 160 | | | 283 | | | 167 | | |
| Number of observations | 1,722 | | | 1,002 | | | 1,899 | | | 1,115 | | |
| Prob > chi2 | .000 | | | .000 | | | .000 | | | .000 | | |

Note: * p<=0.1; ** p<=.05; *** p<=.01; Robust standard errors (in parentheses)

The odds ratios of the included variables express the percentage impact on the individual's probability of entering entrepreneurship via a direct transition out of wage employment. Odds ratios with a value higher than 1 show that the variable has a positive impact on an individual's choice to enter entrepreneurship directly in comparison to remaining in wage employment. Odds ratios with a value lower than 1 show negative impacts of the variable for the choice of a direct entry to entrepreneurship. Table 6 depicts Models 1–4. Model 1 reports the results of the impact of our control variables (age, health, education, wage level, children, job satisfaction), and our first independent variable (the existence of a life partner) on direct entry into entrepreneurship. Model 1 shows significant results for age, wage level, job satisfaction, and children. In line with the results of Lévesque and Minniti (2006), Lin et al. (2000), and Wellington (2006), age and children show a positive impact on an individual's tendency to become self-employed, but job satisfaction and wage level show a negative impact on the transition to self-employment. Higher wage level and higher job satisfaction in wage employment reduce an individual's motivation to change the occupation, leading the individual to remain in wage labour (Budig, 2006). Contrary to our assumptions, the existence of a life partner does not result in a higher tendency to directly enter entrepreneurship.

In Model 2, we tested more specifically for social capital effects on the direct transition to entrepreneurship. By further controlling for the occupational position of the life partner and the life partner's education, we found a negative impact of the life partner's self-employment on an individual's tendency to directly enter into entrepreneurship. This result is contrary to our theoretical assumptions and previous studies (e.g., Özcan, 2011). The education of the life partner shows no significant impact on the direct transition to entrepreneurship. Model 3 and Model 4 display the results for an indirect movement into entrepreneurship by switching out of a hybrid status. Like Model 1, Model 3 also controls for age, health, education, wage level, children, job satisfaction, and also includes our first independent variable (the existence of a

life partner). The results of Model 3 (representing the variables' impact on an indirect switch) slightly differ from the effects in Model 1 (capturing the effect on a direct switch). Model 3 also shows a positive and significant impact of age and negative impacts of a higher level of job satisfaction and wage level. In comparison to Model 1, children show no effect whereas education has a positive impact on an individual's tendency to make an indirect switch to entrepreneurship. As for the direct switch, the existence of a life partner does not affect an individual's endeavour to leave the hybrid status. We must reject Hypothesis 1a because we found no effect of the life partner on the movement to entrepreneurship out of any position (wage employment and hybrid entrepreneurship). Furthermore, in comparison to an employed life partner, a self-employed life partner shows a negative significant impact on a direct switch. For an indirect switch, the odds ratio of a self-employed life partner displays a more than three times higher but insignificant likelihood of deciding to leave the hybrid status in favour of full-time entrepreneurship. We assumed that a self-employed life partner would positively impact the individual's likelihood of leaving the current status for full-time entrepreneurship by any route, with a higher impact on a direct switch; our findings in Models 2 and 4 do not reflect these assumptions. Thus, we also must reject Hypothesis 1b.

*4.4.1 Results for Gender-Related Effects of the Role of Social Capital*

Table 4.7 and 4.8 depict Models 5–12, which display the effects on the routes of transition to entrepreneurship differentiated by gender This enables us to test Hypotheses 2a and 2b.

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***Table 4.7:*** *Results of Conditional Fixed-Effects Logistic Regression for Direct Entry into Self-Employment by Gender*

| **Direct Entry into Self-Employment** | **Model 5 Women** | | | **Model 6 Men** | | | **Model 7 Women** | | | **Model 8 Men** | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Odds ratio | Sig | Std. error | Odds ratio | Sig | Std. error | Odds ratio | Sig | Std. error | Odds ratio | Sig | Std. error |
| Age | 1.182 | *** | (.062) | 1.124 | *** | (.044) | 1.455 | *** | (.183) | 1.163 | *** | (.058) |
| Educational attainment | .839 | | (.346) | 1.077 | | (.148) | .541 | | (.648) | .508 | | (.213) |
| Self-rated health status | .675 | * | (.148) | .997 | | (.146) | .740 | | (.181) | .997 | | (.209) |
| Wages and salary | .474 | ** | (.167) | .626 | * | (.171) | .729 | | (.403) | .562 | * | (.170) |
| Job satisfaction | .886 | * | (.062) | .844 | *** | (.053) | .923 | | (.096) | .867 | * | (.068) |
| Life partner educational attainment | . | . | . | | | | 2.073 | | (1.168) | .443 | * | (.210) |
| Children | 1.508 | | (.503) | 1.973 | ** | (.528) | 3.010 | | (2.014) | 2.194 | ** | (.691) |
| **Life partner** | .879 | | (.477) | .917 | | (.395) | . | . | . | . | . | . |
| **Life partner occupational position** | | | | | | | | | | | | |
| Not employed/registered unemployed | . | . | . | . | . | . | .857 | | (.567) | 1.017 | | (.432) |
| Wage employed (=reference category) | . | . | . | . | . | . | . | . | . | . | . | . |
| Self-employed | . | . | . | . | . | . | .090 | | (.178) | .354 | | (.266) |
| Pseudo r-squared | .106 | | | .067 | | | .215 | | | .095 | | |
| Chi-square | 18.38 | | | 25.28 | | | 20.91 | | | 26.04 | | |
| Number of individuals | 97 | | | 177 | | | 50 | | | 110 | | |
| Number of observations | 613 | | | 1,109 | | | 316 | | | 686 | | |
| Prob > chi2 | .010 | | | .000 | | | .013 | | | .002 | | |

Note: * p<=0.1; ** p<=.05; *** p<=.01; Robust standard errors (in parentheses)

***Table 4.8:*** *Results of Conditional Fixed-Effects Logistic Regression for Indirect Entry into Self-Employment by Gender*

| **Indirect Entry into Self-Employment via Hybrid Entrepreneurship** | **Model 9 Women** | | | **Model 10 Men** | | | **Model 11 Women** | | | **Model 12 Men** | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Odds ratio | Sig | Std. error | Odds ratio | Sig | Std. error | Odds ratio | Sig | Std. error | Odds ratio | Sig | Std. error |
| Age | 1.151 | *** | (.059) | 1.116 | *** | (.037) | 1.325 | *** | (.108) | 1.201 | *** | (.064) |
| Educational attainment | 2.054 | ** | (.608) | 1.390 | | (.305) | 2.011 | | (1.076) | 1.314 | | (.271) |
| Self-rated health status | 1.444 | * | (.301) | .745 | | (.141) | 2.146 | * | (.870) | .619 | | (.188) |
| Wages and salary | .163 | *** | (.058) | .099 | *** | (.035) | .112 | *** | (.063) | .078 | *** | (.039) |
| Job satisfaction | .865 | * | (.073) | .767 | *** | (.047) | .942 | | (.155) | .738 | *** | (.066) |
| Life partner educational attainment | | | | | | | .128 | | (.111) | 1.058 | | (.275) |
| Children | 1.354 | | (.587) | .969 | | (.223) | .323 | ** | (.314) | 1.303 | | (.447) |
| **Life partner** | 2.207 | | (1.767) | 1.240 | | (.658) | . | . | . | . | . | . |
| **Life partner occupational position** | | | | | | | | | | | | |
| Not employed/registered unemployed | . | . | . | . | . | . | 1.867 | | (1.971) | 1.145 | | (.655) |
| Wage employed (=reference category) | . | . | . | . | . | . | . | . | . | . | . | . |
| Self-employed | . | . | . | . | . | . | 8.463 | ** | (8.596) | 1.996 | | (3.529) |
| Pseudo r-squared | | .253 | | | .304 | | | .373 | | | .388 | |
| Chi-square | | 42.47 | | | 56.42 | | | 34.60 | | | 45.54 | |
| Number of individuals | | 88 | | | 195 | | | 41 | | | 126 | |
| Number of observations | | 469 | | | 1,430 | | | 224 | | | 891 | |
| Prob > chi2 | | .000 | | | .000 | | | .000 | | | .000 | |

Note: * p<=0.1; ** p<=.05; *** p<=.01; Robust standard errors (in parentheses)

By first observing gender-related differences in the effect of social capital on the direct entry into entrepreneurship, displayed in Model 5 and Model 6, we found the following results: for women and men, age has a significant and positive effect on the direct transition to entrepreneurship. For women, the probability of leaving wage employment for self-employment increases by 18% per year, for men this increase shows a value of 12%. Furthermore, for women, we found a negative relationship between health and direct transition to entrepreneurship: if women perceive their own health status worse, the likelihood for a direct switch decreases by almost 33%. For both men and women, higher job satisfaction and higher wage level show negative effects on the probability of leaving the current position for self-employment. Moreover, children play a more significant and positive role for men (in comparison to women) in the decision to directly switch to entrepreneurship – this impact displays an increase of 97% per child. We found no significant effect of the existence of a life partner on the transition to entrepreneurship for either women or men. When more precisely observing the social capital effects of the life partner on the direct transition to entrepreneurship, displayed in Model 7 and Model 8, we again found no significant impact of the life partner's self-employment for either women or men. By controlling for the occupational position of the life partner, for men, the life partner's education negatively impacts men's tendency to directly transition to self-employment: the tendency reduces by 56% per additional year of the life partner's education. For women, controlling for the occupational position of the life partner negates any further impacts of wage level, job satisfaction, and health on the direct transition to self-employment.

Model 9 and Model 10 show the effects on an indirect entry to entrepreneurship, differentiated by gender. For the indirect switch, we found significant results for age, education, health, wage level, and job satisfaction for women. For women who switch indirectly, health shows a reversed effect: women's tendency to leave the hybrid status in favour of self-employment increases by 44% if health is perceived poor. For men, we also found positive effects of age

and negative effects of job satisfaction and wage level. Regarding our first variable of interest – the existence of a life partner – our results show that women's and men's likelihood of taking an indirect step into self-employment is not affected by having a life partner. When including the occupational position and the education of the life partner (Model 11 and Model 12), women's likelihood of switching is no longer affected by job satisfaction and educational attainment, but the effect of children becomes significant. Children are negatively correlated to women's tendency to enter entrepreneurship indirectly, decreasing the likelihood by almost 68%. Additionally, women's likelihood of leaving the hybrid status for full-time entrepreneurship is positively associated with having a self-employed life partner: the likelihood increases by more than 800%. For men, we do not receive significant effects of the life partner's occupational position on men's tendency to leave the hybrid status in favour of full-time entrepreneurship. The results of the gender-specific models for both ways of entering entrepreneurship partly verify our Hypothesis 2a. For the indirect switch, women's likelihood of entering entrepreneurship is more strongly affected (than that of men) by social capital represented in the occupational position of the life partner. For women who directly switch to entrepreneurship, we found no significant effects of the life partner's social capital. This makes us reject Hypothesis 2b.

Table 4.9 summarises our accepted and rejected hypotheses.

***Table 4.9:*** *Accepted and Rejected Hypotheses*

| Assumed hypotheses | | |
|---|---|---|
| H1a: | "The presence of a life partner shows higher positive effects for a direct transition into full-time entrepreneurship than for the indirect route via hybrid entrepreneurship." | ✗ |
| H1b: | "Compared to individuals with life partners in other occupations, individuals with entrepreneurial life partners are more likely to switch directly into full-time entrepreneurship than via hybrid entrepreneurship." | ✗ |
| H2a: | "In comparison to men, for women, the presence of social capital provided by the life partner shows higher positive impacts on the probability of a direct and indirect switch to self-employment." | ✗/✓ |
| H2b: | "For women, the expected difference in the presence of social capital related to a direct versus an indirect switch is more pronounced than for men." | ✗ |

Note: ✓: Fully supported; ✗/✓: Partly supported; ✗: Not supported

## 4.5 Discussion

Research is increasingly focusing on the family as the central social context factor shaping entrepreneurial decisions and behaviour (e.g., De Wit and van Winden, 1989; Lindh and Ohlsson, 1996; Dunn and Holtz-Eakin, 2000). In this vein, important influences can originate from the life partner (Budig, 2006; Parker, 2008). As couples comprise the majority of entrepreneurs in Germany, our paper answers the research question of whether an individual's decision regarding the route into entrepreneurship might be affected by social capital provided by a life partner. Our study draws on data from the GSOEP with a sample of 1,002 observations of a direct switch to entrepreneurship out of wage employment and 1,115 observations of an indirect switch to entrepreneurship out of the hybrid status. Our results suggest that life partners and their occupations do not increase an individual's propensity to become an entrepreneur. Contrary to our hypotheses and in contrast to previous studies (e.g., Caputo and Dolinsky, 1998; Özcan, 2011), our results suggest that having a self-employed life partner decreases the

probability of directly switching to entrepreneurship. We further found no effect of the life partner's occupation on the probability of switching to entrepreneurship out of the hybrid status. The presence of a life partner shows no effect on the probability of entering entrepreneurship via direct or indirect routes. Moreover, our results suggest that social capital has no different effect on the choice of direct entry compared to indirect entry. Our hypotheses for gender-related differences in terms of the impact of social capital on the probability of entering entrepreneurship can be partly verified. We found evidence that having a self-employed life partner positively influences a woman's propensity to enter full-time entrepreneurship out of a hybrid status, whereas we found no gender-related differences for the direct switch. The simple presence of a life partner does not increase women's likelihood of either directly or indirectly entering entrepreneurship. Concerning the direct path to entrepreneurship, this result is consistent with Caputo and Dolinsky (1998).

We have reflected on best practices when reporting and discussing the findings of our research. Recent initiatives (e.g., Rothstein et al., 2005) have reassessed the criteria for what constitutes valid and powerful empirical research and have indicated the issue of 'file-drawing', that is, when studies with negative results remain unpublished. This practice often accompanies the phenomenon of '*p*-hacking', where significance levels are pushed below the threshold of .05 (Bettis, 2012; Brodeur et al., 2016) or 'HARKing', which stands for hypothesising after the results are known (Bosco et al., 2016). Such trends reduce the transparency and replicability of scientific research and can be misleading as they do not reflect the true underlying empirical process (Meyer et al., 2017). In line with recent proposed guidelines and suggestions tackling the aforementioned issues, we believe that our research – despite its many nil-findings – offers implications that help to further improve research on entrepreneurship. For example, and in a similar vein, Schulz et al. (2017) also provided sophisticated and enriching research, although they do not find significant differences between their variables on household composition with respect to the impact of hybrid entrepreneurship on explaining multiple job holders' earnings

structure. Our empirical results do not confirm the hypothesized positive effect of the presence of a life partner and especially a resourceful life partner on the propensity to transition to entrepreneurship. Furthermore, and differing to studies which have also focused on the nexus of social capital and self-employment (e.g., Caputo and Dolinsky, 1998; Davidsson and Honig, 2003; Wagner, 2005; Mueller, 2006), our study suggests that life partners have different impacts on the probability of transitioning to entrepreneurship depending on the different routes taken. We have demonstrated that having a self-employed life partner is not necessarily a predictor of an individual's engagement in entrepreneurship when assuming that a transfer of social capital occurs. We initially proposed that social capital is transferred through the self-employed life partner's established networks, time flexibility, and autonomy, allowing both partners to specialise and participate in the labour market. In consideration of our findings, we must extend our perspective to include further effects that might interfere with social capital transfer by life partners and their provided resources. For example, occupational choice in the household context is also affected by decisions of risk diversification and risk pooling through the combination of different types of employment (Schiller and Crewson, 1997; Parker, 2008). Studies have shown that couples seek to manage risk by having different employment types, thereby implying informal insurance arrangements (e.g., Blanchflower and Oswald, 1990; Clark and Drinkwater, 2000; Georgellis and Wall, 2000). Considering self-employment's association with high levels of risk (Knight, 1921; Duchesneau and Gartner, 1990) and the endeavour of households to diversify risk, an individual may persist in wage employment because of their life partners' self-employment. Individuals whose partners are already self-employed could choose the indirect route into entrepreneurship via hybrid entrepreneurship because hybrid entrepreneurship reduces the initial risks of entrepreneurship. Furthermore, entrepreneurship is more likely to increase the level of work–family conflict as it is associated with higher work obligations and more working hours (O'Driscoll, 1992; Parasuraman et al., 1996). In the beginning in particular, a business venture requires a significant amount of time

and effort from the entrepreneur and the other household members, which increases the family–business intersection and creates fertile ground for conflicts that arise through the work–family interface (Werbel and Danes, 2010). Therefore, the household context and the life partner in particular can act as a constraint: life partners who perceive work–family conflicts have been proven to increase strain on the self-employed (Werbel and Danes, 2010).

Our research offers several opportunities for future academic work. Generally, additional conceptual and empirical research focusing on hybrid entrepreneurship is needed as little is currently known about this phenomenon. Because of the urgent need to embrace a more context-based perspective within entrepreneurial research, we embedded our paper in the social dimension categorised by Welter, which covers networks, households, and families (Welter, 2011). As such, the following propositions and ideas for hybrid entrepreneurship also relate to the social dimension. Firstly, the effects of networks on hybrid entrepreneurs are unknown to date. A fruitful avenue for further research could therefore be to investigate the existence of networks, the type of networks (e.g., in the private and in the market domains), and the broadness of networks. Closely tied to this issue are peer effects on hybrid entrepreneurs and their businesses. Here, future work could investigate how the engagement of a colleague in hybrid entrepreneurship and the presence of hybrid entrepreneurship as a conversation topic among colleagues affect an individual's decision to be a hybrid entrepreneur. Secondly, future research could further examine the influence of the households on hybrid entrepreneurs and their businesses. For example, another interesting prospect that is also likely to attract policy interest would be to investigate couples' joint participation in a hybrid venture and analyse their entrepreneurial success. Finally, the family embeddedness of hybrid entrepreneurship remains unexplored. Future studies on hybrid entrepreneurship could therefore focus on these role model functions and intergenerational influences. Future research addressing the influence of life partners – especially the life partner's self-employment – on the likelihood of an individual

to enter entrepreneurship should consider how the ongoing coronavirus pandemic might have affected decisions in favour of entrepreneurship over paid employment. Assuming an increased pursuit of risk diversification due to the coronavirus pandemic, the life partner's self-employment could make individuals less likely to choose entrepreneurship. These theoretical and practical implications as well as avenues for future academic work are neither exhaustive nor conclusive, yet we hope that they will provide an orientation for subsequent research and will stimulate scholars to investigate the important topic of hybrid entrepreneurship further.

Like any research, our work comes with some limitations. Firstly, our study cannot display the explanatory powers of other theories that can rationalise intra-couple influences on the decision to be engaged in hybrid entrepreneurship. For example, positive assortative mating (e.g., Mare, 1991; Kalmijn and Flap, 2001; Brown et al., 2006; Ermisch et al., 2006; Andersson and Hammarstedt, 2010), risk diversification (Parker 1997), and role model and demonstration effects (e.g., Bosma et al., 2012) are possible explanations for our empirical results and could be in effect simultaneously. Furthermore, our study suffers from data-related limitations. As we used an existing data set, we cannot specify, for example, whether the life partners work in the same entrepreneurial business as copreneurs. If so, aspects of the scholarly domain of the family business could also be relevant and could help to find reasons for determinants being so complex and intertwined. Moreover, data-related limitations appear regarding self-employed individuals, who run an incorporated business. An incorporated business appears as a legal entity and provides legal benefits, such as the protection of personal assets (Özcan, 2011). An entrepreneur in an incorporated business inhabits an ownership position in that business and is also employed as an executive manager in that same business. GSOEP contains information of the self-reported and self-assessed occupational position of the individual. The question on the occupational position was revised in 2019 by including the option 'Managing partner or similar white-collar employee in self-owned business / company' in the section 'White-collar worker'.

As such, in the 2019 wave of GSOEP, owner managers of an incorporated business, e.g., a Ltd. or a GmbH, who basically hold an employment contract with their own firm are classified as white-collar workers, respectively wage employed individuals. However, before 2019, this information was not elaborated in GSOEP. Therefore, for our data from the years 1993 to 2016, we cannot unambiguously say how entrepreneurs with an incorporated business who have an employment contract with their own firm are classified. Based on the 2019 wave, we can only assume that in previous waves such individuals were also classified as white-collar workers, respectively wage employed individuals. The question remains whether this classification is justifiable. Such individuals might be contractually employed, yet they carry out entrepreneurial tasks in their own firm and are crucial for the business survival and identity. Concerning this specific limitation to our research, future scholars could collect theory-driven data for this specific phenomenon.

Despite the outlined limitations, our work depicts a valuable scholarly contribution. It is the first attempt to simultaneously focus on hybrid entrepreneurship literature, adopt a social context perspective, offer explanations from the social capital theory, and consider gender-related differences in decision-making behaviour. We thus help establish where scholarly attention currently exists and where more exploration is needed. Our findings also reveal issues worthy of analysis. Thus, this paper draws attention to promising research opportunities: the topic of hybrid entrepreneurship portrays changes in social norms and labour market conditions. This makes our paper unique, inhabiting a new space within research and constituting a valuable scholarly contribution.

# 5. Psychological Well-being of Hybrid Entrepreneurs: A Replication and Extension Study using German Panel Data

Meike Stephan • Cemre Demir • Frank Lasch •Alexander Vossen •Arndt Werner

**ABSTRACT**

This study contributes to new debates about how hybrid entrepreneurship is related to specific psychological well-being dimensions (job, life, and leisure time satisfaction). To address this issue, Ardianti, Obschonka, and Davidsson (2022; AOD) published first empirical results in *JBVInsights*. They provide evidence for different effects on well-being, depending on how individuals have switched from or into hybrid entrepreneurship. By drawing on panel data from Germany, two studies are conducted. While study 1 replicates the original methodological approach, study 2 provides an extension by applying cross-model coefficient comparison tests. In study 1 we were able to replicate some of the original results presented by AOD. In contrast to the original study, we find that the switch from wage employment to hybrid entrepreneurship is negatively related to job and life satisfaction. Also, while AOD show that a switch from hybrid entrepreneurship to full-time entrepreneurship relates significantly to job and life satisfaction, we find no such effects. Finally, in study 2, we provide novel evidence that the effects induced by a job switch to hybrid and full-time entrepreneurship are significantly stronger for job satisfaction when compared to life and leisure time satisfaction.

**Keywords:** entrepreneurial well-being, life satisfaction, job satisfaction, leisure time satisfaction, hybrid entrepreneurship.

JEL Classification: I39, J22, J24, J28, L26

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## 5.1 Introduction

Entrepreneurial well-being (EWB) has become an important influencing construct in psychological and entrepreneurship research (Shir et al., 2019; Wiklund et al., 2019; Layard, 2005; Aguilar et al., 2013; Frey and Stutzer, 2002; Frijters et al., 2004; Proto and Rustichini, 2015). Defined as "the experience of satisfaction, positive affect, infrequent negative affect, and psychological functioning about developing, starting, growing, and running an entrepreneurial venture" (Wiklund et al., 2019, 582), well-being is influenced by entrepreneurship in both positive and negative ways (Shir, 2015; Shir et al., 2019; Wiklund et al., 2019; Stephan et al., 2022; Solomon et al., 2022).

While most of this research focuses on antecedents and consequences of a direct entry of individuals into full-time self-employment (Benz and Frey, 2008a; Binder and Coad, 2013), EWB of hybrid entrepreneurs has not been systematically researched. Being the first to provide empirical evidence on how hybrid entrepreneurship (HE) may be related to specific psychological well-being dimensions, Ardianti et al. (2022; hereafter "AOD" study) have recently published empirical results on the indirect entry into self-employment via HE (individuals working simultaneously in wage and self-employment; Folta et al., 2010). They find that HE results in higher strain levels, lower job satisfaction when compared to full-time employment or self-employment.

These results are an important advancement in EWB research as entry modes via HE have become more and more prevalent in many countries (Ardianti et al., 2022; Joona and Wadensjö, 2013; Reynolds, 2012; Xi et al., 2018). Viewed positively, HE allows individuals to test and learn about their entrepreneurial ability and business potential (Petrova, 2010a; 2010b) while making only small initial time and capital commitments (Raffiee and Feng, 2014). Viewed negatively, HE can cause tensions of time and resource allocation between wage employment and self-employment and role-allocation problems. Hence, combining wage employment and self-employment will most certainly affect well-being in distinct ways when compared to other

occupational situations.

The main objective of this article is to replicate and extend the UK-based results with data from the German Socio-Economic Panel (GSOEP): In study 1 we replicate the methodological approach of the AOD study and compare our results to the original article. In study 2 we extend existing research by utilizing cross-model coefficient comparison (Mize et al., 2019) to account for different strengths of the job-switches on different well-being dimensions. By applying this method, we compare the marginal effects of a specific occupational movement behavior (e.g., switching from wage employment to HE) on different outcomes (e.g., job vs. life satisfaction).

In line with the AOD study, we show that changes in well-being induced by a switch to HE differ from changes in well-being induced by other kinds of switches. In contrast to the AOD study, we find a negative effect on job and life satisfaction induced by the switch to HE from wage employment. In study 2 we show that the negative effect of switching from wage employment to HE is significantly higher for job satisfaction when compared to life satisfaction.

## 5.2 Background: The AOD study

### *5.2.1 Data and sample*

Using data from the United Kingdom Household Longitudinal Survey (UKHLS) of the years 2011 to 2017, the AOD study comprises information about 119,446 full-time wage employed individuals, 18,496 self-employed individuals, 3,847 hybrid entrepreneurs and 5,149 dual wage job holders.

### *5.2.2 Method*

The AOD study examines whether switches from or into HE show differences in well-being compared to other job switches and whether potential differences are caused by the specific work arrangements of HE ("treatment effects" based on the procedural utility argument) or by ex-ante personality traits ("self-selection effects"; Baron et al., 2016; Schneider et al., 1995). To detect self-selection effects, the study starts by conducting ANOVA and Games Howell post-hoc analysis. To address the issue of self-selection bias and to isolate them from the

treatment effect, an entropy balancing approach is used (Hainmüller, 2012). This methodology enables to test for the pure effect of a treatment (job switch) independently from self-selection effects of individuals into entrepreneurship (Stephan et al., 2020; Stephan, 2018). Entropy balancing is applied to individuals of the control group (who maintained the job status in two consecutive years) and the treatment group (individuals performing a job switch). By using the weights retrieved from entropy balancing, a difference-in-difference regression is conducted for each kind of job switch.

### *5.2.3 Variables and coding*

To make the treatment group and the control group comparable by simulating random allocation and reducing pre-existing differences, three outcome variables were used (t and t+1) in their matching approach: changes in life and job satisfaction, and mental strain. Life and job satisfaction were measured on a 7-point, mental strain on a 4-point Likert scale. Independent variables relate to age, gender, marital status, education, organization type and personality traits (agreeableness, conscientiousness, extraversion, neuroticism, openness). The variable 'hybrid intensity' was added to better examine changes in the transition of HE to full-time entrepreneurship and back to wage employment. *Hybrid entrepreneurs* are defined as individuals who simultaneously perform wage employment as the primary job and self-employment as the secondary job (Folta et al., 2010). The primary job refers to the job with the most hours. If the working hours were equal, the highest-wage job was considered as the primary one. Other employment situations refer to *full-time entrepreneurs* (single jobholder), *full-time wage employed* (single jobholder), and *dual job holders* as individuals working in two wage employed jobs. In total, six types of job switches are considered: (i) full-time wage employed to HE; (ii) hybrid entrepreneurs to full-time wage employment; (iii) hybrid entrepreneurs to full-time entrepreneurship; (iv) single (full-time) job holder to dual job holders; (v) dual job holders who switched back to single job holder; and (vi) direct transitions from full-time wage to full-time self-employment.

*5.2.4 Results*

The main finding of the AOD study is that the well-being of hybrid entrepreneurs is different in some dimensions from the comparison groups. The ANOVA results show that hybrid entrepreneurs perceive higher levels of mental strain compared to full-time wage employees, self-employed individuals, and dual job holders. Hybrid entrepreneurs and dual job holders have significantly lower levels of job satisfaction in comparison to self-employed individuals. Regarding life satisfaction, no differences are identified. The difference-in-difference regressions produce only significant results for the switch to self-employment on increased job satisfaction from hybrid status and wage employment. The switch to self-employment out of the hybrid status also shows an increase in life satisfaction. In contrast, the switch to HE is insignificant for all well-being measures. This is also be observed for the other types of job switches (for an overview of the AOD results, see column 2 of Table 5.8, for the detailed results of the AOD study see Tables A.5.7-A.5.12).

## 5.3. Replication (study 1)

*5.3.1 Data and sample*

We draw on data from the German Socio-Economic Panel (GSOEP), the largest wide-ranging representative panel study in Germany conducted annually with 30,000 respondents in approximately 10,000 households from the years 1984 to 2019. Our sample consists of 328,932 full-time wage employed individuals, 36,516 self-employed individuals, 1,032 hybrid entrepreneurs and 19,593 dual wage job holders. Please note that compared to the AOD study, we use data with a broader time span (1984-2019).

*5.3.2 Method*

We applied the same matching approach and employed entropy balancing (Hainmüller, 2012) to mitigate self-selection effects (Huang et al., 2017). The received weighting factor allows us to make the individuals in the control and treatment groups comparable in terms of their characteristics (the matching variables). As we have several observations per individual,

we collapsed our dataset to just one observation per individual to receive a weighting factor for all individuals. We then decided which of the collapsed values will be used for entropy balancing (Table 5.1). With the items of the single remaining observation for everyone, entropy balancing was then performed for the respective treatment groups. We then matched the obtained weighting factor per individual with the initial sample. In line with the AOD study, we then conducted longitudinal regression with fixed effects (panel individual), time effects (survey years), and clustered robust standard errors using Stata 17. Running fixed effects regression with year dummies is computationally equivalent to performing difference-in-difference regressions for panel models (*xtdidregress*) for each treatment group, including the respective weighting factor of the entropy balancing[14] [15].

### *5.3.3 Variables and coding*

#### *Matching variables*

In line with the AOD study entropy balancing procedure, we matched individuals based on the same variables[16] [17] (Table 5.1). Tables A.5.1 to A.5.6 report the balancing variables included in the respective switches.

*[Insert Tables A.5.1 to A.5.6 here]*

Different to AOD, we use the absolute satisfaction values for matching (AOD measure the satisfaction change before/after the job switch). The reason for this is our longitudinal panel data that entails not only a before/after measure of satisfaction, but typically multiple before/after observations for the same individual.

[14] For more information: https://www.stata.com/new-in-stata/difference-in-differences-DID-DDD/

[15] AOD pooled the data and applied ANOVA and Games Howell post hoc tests for some of their estimations. As pooling our longitudinal panel would introduce significant bias, we decided against these tests in our replication.

[16] For some of the switches we were not able to use all matching variables (the algorithm did not converge within the specified tolerance, STATA reports an error term stating that the algorithm failed to adjust mean of the control and treatment group. For example, for the switch from HE to wage employment we had to neglect job satisfaction (Table 5).

[17] Information on the individuals' characteristics "BIG 5" (neuroticism, openness, extraversion, conscientiousness, agreeableness) in GSOEP are available for the years 2005, 2009 and 2013. To prevent losses of too many observations of the years before 2005, we assigned the values from these years to the other years. Since these variables capture psychological traits, they can be expected to remain relatively stable over shorter periods of time (Cobb-Clark and Schurer, 2012).

***Table 5.1:*** *Variables used in the matching analysis*

| Variable name | Value used for matching | Definition |
|---|---|---|
| ***Well-being*** | | |
| Life satisfaction | Mean | Self-reported overall life satisfaction measured in an 11-point Likert scale (0= completely dissatisfied; 10= completely satisfied) |
| Job satisfaction | Mean | Self-reported satisfaction with current job measured in an 11-point Likert scale (0= completely dissatisfied; 10= completely satisfied) |
| Leisure time satisfaction | Mean | Self-reported satisfaction with leisure time measured in an 11-point Likert scale (0= completely dissatisfied; 10= completely satisfied) |
| ***Matching covariates*** | | |
| Age | Latest | Respondents age |
| Age2 | Latest | Respondents age squared |
| Gender | First | Dummy coded variable (1=male 0=female) |
| Married | Latest | Dummy coded variable (1=married 0=non-married) |
| Education | Latest | Number of years invested in education |
| Org. type | Latest | Dummy coded variable (1= public sector 0=private sector) |
| Hybrid intensity | Mean | Ratio of self-employment and wage employment income |
| Income gap | Mean | Income gap between income in t and t+1 |
| Agreeableness | Latest | Mean of composite score from three 7-point Likert scales of self-reported measure on agreeableness |
| Conscientiousness | Latest | Mean of composite score from three 7-point Likert scales of self-reported measure on conscientiousness |
| Extraversion | Latest | Mean of composite score from three 7-point Likert scales of self-reported measure on extraversion |
| Openness | Latest | Mean of composite score from three 7-point Likert scales of self-reported measure on openness |
| Neuroticism | Latest | Mean of composite score from three 7-point Likert scales of self-reported measure on neuroticism |

*Dependent variables*

Aside general life satisfaction, we capture domain-specific satisfaction in form of job and leisure time using an eleven-point Likert scale ranging from 0 (lowest satisfaction) to 10 (highest satisfaction). The single item on general *Life satisfaction* is used as the first proxy of well-being as a common and valid measure in the psychological and entrepreneurial literature (Diener and Lucas, 1999; Helliwell and Wang, 2012; Layard, 2010; OECD, 2013)[18].

The domain specific *Job satisfaction* (Aguilar et al., 2013; Binder and Coad, 2016; Borjas, 1979) and *Leisure time satisfaction* (Binder and Coad, 2016; Demoussis and Giannakopoulos, 2008; Van Praag et al., 2003) are surveyed in all years from 1984 onwards. A difference between GSOEP and UKHLS exists regarding the applied scale levels for measuring overall life and job satisfaction. UKHLS measures satisfaction levels in 7-point, whereas GSOEP uses an 11-point Likert scale. This makes us able to detect effects in more nuanced way.

Another distinction refers to job satisfaction. In UKHLS, the measure for job satisfaction refers to satisfaction with their primary job only. In GSOEP, the job satisfaction question is placed at the very beginning of the questionnaire and refers to overall job satisfaction, including hybrid activity. Thus, the measure helps to depict hybrid entrepreneurs' satisfaction with both jobs and changes when they switch to full-time self-employment or wage employment. Also, we were not able to include mental strain as a proxy measure of well-being. In UKHLS, respondents are asked whether they have recently felt constantly under strain. Unfortunately, in GSOEP, there is no such question and we used instead satisfaction with leisure time as a conventional measure of domain-specific satisfaction (Binder and Coad, 2016; Hyytinen and Ruuskanen, 2007; Van der Zwan et al., 2018).

[18] General life satisfaction is regarded to be as valid as the more psychometrically customized 'Satisfaction with Life Scale" (Diener et al., 1985; Cheung and Lucas, 2014; Schimmack and Oishi, 2005). Using it as a proxy measure of well-being, our study is consistent with contemporary research (Abreu et al., 2019; Bhuiyan and Ivlevs, 2019; Van der Zwan et al., 2018).

*Independent variables*

Following Folta et al. (2010) and in line with AOD, we distinguished between wage labor, HE, and self-employment. We used information on the employment status[19], the occupational position of the primary job[20], and income from self-employment[21]. Individuals were considered *hybrid entrepreneurs* if they had, in any given year, an employment status of being employed, a central occupational position of being wage employed, and income from self-employment. Like in the AOD study, we also followed Folta et al. (2010) in the operationalization of HE. Apart from this condition, HE is a relatively inclusive term. It does not require any consideration of the criteria of time allocation between both jobs (Petrova, 2005; 2010a; 2010b; 2012) or the proportion of income generated from the entrepreneurial activity (Mungaray and Ramirez-Urquidy, 2011). Like AOD, we paid major attention to the hierarchy of both jobs when defining HE. However, while AOD used information on time allocation to operationalize the hierarchy of jobs within the hybrid status, we used information on income generated from entrepreneurial activity. Apart from this minor difference in the operationalization of hybrid entrepreneurs, our construct of HE is consistent with the one used in AOD.

*Self-employed* are those who had, in any given year, an employment status of being employed in general, a central occupational position of being self-employed, and income from self-employment. As *single job holders* are considered individuals that had, in any given year, an employment status of being employed, a central occupational position of being wage employed or self-employed, and no income from self-employment. We defined individuals as *dual job holders* if they had, in any given year, an employment status of being employed, a

[19] The employment status variable distinguishes in their primary occupation employed from non-employed individuals. Our sample consists of full-time employed, regular part-time employed, or marginal, irregular part-time employed ('Mini-Jobs,' where the monthly income does not exceed 450€) as primary occupation.

[20] Regarding the occupational position, we define wage employed individuals as manual laborers, employees, and civil servants. The category self-employed contains freelancers, self-employed without employees, self-employed with employees.

[21] The income variable is the number of months income was received in year-1. To bypass the time-matching problem of having employment status and occupational position from the survey year but the income from the last year, we introduce the self-reported variable on income. We exclude zero values because of our focus on employed individuals. To deal with extreme outliers in terms of income, we executed the Winsor command (Cox, 1998).

central occupational position of being wage employed, no income from self-employment, and income from secondary (wage) employment. We examined the same six types of job switches and the control groups for each sample are composed of individuals who remained in the initial job.

*5.3.4 Results*

In all our samples we consider two consecutive years (t and t+1) to compare individuals conducting a job-switch with observations of those who did not switch (control group). In our first sample, we compare individuals who remain in wage employment to those observations of individuals who switched from wage employment to HE (job satisfaction n=232; life satisfaction n=249; leisure satisfaction n=253, depending on the sample size of the models; Table 5.2)[22]. Switching from wage employment to HE results in a highly significant reduction of job satisfaction (-.491). In the case of life satisfaction, the switch to HE also shows a substantial decrease (-.190), but no significant effects for satisfaction with leisure time. These effects *differ* from the results of the AOD study, as they do not find any significant results on job and life satisfaction triggered by the switch to HE although the sign of the coefficient is also negative – at least implying a negative tendency on job and life satisfaction[23].

Our second sample comprises all individuals who switch from wage employment to full-time self-employment and the corresponding control group (n=577; n=585; n=622; Table 5.3). We find that the switch to self-employment positively affects the job satisfaction of individuals (+.512). The effects of switching to full-time entrepreneurship on life and leisure time satisfaction are insignificant. These results are *in line* with the AOD study and coherent with EWB literature (Binder and Coad, 2016; Parasuraman et al., 1996; Parasuraman and Simmers, 2001; Stephan, 2018; Stephan et al., 2022)[24].

[22] In the regression tables we always report the within $R^2$.

[23] Concerning the negative impact of a switch to HE on life and job satisfaction, differences in measure constructs might be a reason for the deviating results compared to AOD.

[24] This effect is explained by higher flexibility and procedural utility. Also, in coherence to many other studies our results do not indicate an effect of entrepreneurship on the overall-life satisfaction of individuals (Van der Zwan et al., 2018).

Our third sample analyzes the switch out of the hybrid status to full-time entrepreneurship (Table 5.4). Given the limited number of observations of the control group (individuals remaining in HE) and the 204 to 222 observations (depending on the respective models), who switch from hybrid- to full-time entrepreneurship, we receive *insignificant* F-Statistics for all three satisfaction dimensions (Model 7 to 9)[25].

For the fourth sample, the fact that only a few individuals remain in hybrid status for more than one year has also affected our investigation of the switch from hybrid status back to full-time wage employment, where we also receive insignificant F-Statistics for all three models (Table 5.5). We had to neglect year dummies in Models 7 to 12 as job switches out of the hybrid status are not represented yearly. Tables A.5.3 and A.5.4 display all covariates used for entropy balancing for the switch out of hybrid status to self-employment and wage employment. Our fifth sample (n=4,424; n=4,617; n=4,236) includes individuals that remain single-job holders (exclusively only wage or self-employed) and those moving from single to dual job holder. The switch out of single job holding to dual job holding affects negatively both job satisfaction (-.110) and life satisfaction (-.048), while the effect on satisfaction with leisure time is positive (+.055). These effects are *different* to the ones documented in the AOD study, which does not show any significant results for the switch to dual job holding.

Finally, the sixth sample (Models 16 to 18; n=5,710; n=6,032; n=5,609; Table 5.7) concerns individuals who remain in dual jobs and those who switch from dual jobs to single job holding. In line with the results of the AOD study, we receive no significant effects on life and job satisfaction for this switch, but a weak significant and positive effect on leisure time satisfaction. For an overview of a comparison between the results of the AOD study and study 1 of the replication see Table 5.8.

[25] According to recent studies, about 700,000 individuals in Germany switch to the hybrid status every year, but almost the same number leave the status as well (Butkowski et al., 2022).

***Table 5.2:*** *Switching from full-time wage employment to hybrid entrepreneurship*

| | (1)<br>Job satisfaction<br>b/se<br><br>n=249 | (2)<br>Life Satisfaction<br>b/se<br><br>n=253 | (3)<br>Leisure time satisfaction<br>b/se<br><br>n=232 |
|---|---|---|---|
| Switching from full-time wage employment to hybrid entrepreneurship | -.493***<br>(.126) | -.190**<br>(.083) | .187<br>(.130) |
| **Cross-Model Coefficient Comparison** | | | |
| Model1-Model2 =-.302**(.127) | | | |
| Model1-Model3=-.680***(.168) | | | |
| Model2-Model3=-.377***(.141) | | | |
| Observations | 158,411 | 159,704 | 149,199 |
| $R^2$ | .031 | .039 | .012 |

*** p<.01, ** p<.05, * p<.1, includes dummies for survey years, clustered standard errors in parentheses.

***Table 5.3:*** *Switching from full-time wage employment to full-time entrepreneurship*

| | (4)<br>Job satisfaction<br>b/se<br><br>n=585 | (5)<br>Life satisfaction<br>b/se<br><br>n=622 | (6)<br>Leisure time satisfaction<br>b/se<br><br>n=577 |
|---|---|---|---|
| Switching from full-time wage employment to full-time entrepreneurship | .512***<br>(.097) | -.045<br>(.064) | -.136<br>(.112) |
| **Cross-Model Coefficient Comparison** | | | |
| Model4-Model5 =.557***(.097) | | | |
| Model4-Model6=.648***(.138) | | | |
| Model5-Model6=.091 (.119) | | | |
| Observations | 158,747 | 160,073 | 149,544 |
| $R^2$ | .022 | .022 | .012 |

*** p<.01, ** p<.05, * p<.1, includes dummies for survey years, clustered standard errors in parentheses.

***Table 5.4:*** *Switching from hybrid entrepreneurship to full-time entrepreneurship*

| | (7) Job satisfaction b/se | (8) Life satisfaction b/se | (9) Leisure time satisfaction b/se |
|---|---|---|---|
| | n=217 | n=222 | n=204 |
| Switching from hybrid entrepreneurship to full-time entrepreneurship | -1.12<br>(.730) | -.08<br>(.336) | 1.6<br>(.119) |
| **Cross-Model Coefficient Comparison** | | | |
| Model7-Model8 =-1.04 (.682) | | | |
| Model7-Model9=-2.72***(.983) | | | |
| Model8-Model9=-1.68 (1.37) | | | |
| Observations | 252 | 257 | 232 |
| $R^2$ | .085 | .001 | .095 |

*** p<.01, ** p<.05, * p<.1, clustered standard errors in parentheses.

***Table 5.5:*** *Switching from hybrid entrepreneurship to full-time wage employment*

| | (10) Job satisfaction b/se | (11) Life satisfaction b/se | (12) Leisure time satisfaction b/se |
|---|---|---|---|
| | n=124 | n=127 | n=114 |
| Switching from hybrid entrepreneurship to full-time wage employment | .167<br>(.351) | .472<br>(.321) | -.35<br>(.783) |
| **Cross-Model Coefficient Comparison** | | | |
| Model10-Model11=-.306 (.432) | | | |
| Model10-Model12= .517 (.879) | | | |
| Model11-Model12= .822 (.607) | | | |
| Observations | 159 | 162 | 142 |
| $R^2$ | .004 | .016 | .006 |

*** p<.01, ** p<.05, * p<.1, clustered standard errors in parentheses.

***Table 5.6:*** *Switching from full-time wage employment to dual job holding*

| | (13)<br>Job satisfaction<br>b/se<br><br>n=4.424 | (14)<br>Life satisfaction<br>b/se<br><br>n=4.617 | (15)<br>Leisure time satisfaction<br>b/se<br><br>n=4.236 |
|---|---|---|---|
| Switching from full-time wage employment to dual job holding | -.110***<br>(.031) | -.048**<br>(.021) | .055*<br>(.031) |
| **Cross-Model Coefficient Comparison** | | | |
| Model13-Model14= -.063** (.032) | | | |
| Model13-Model15= -.166*** (.041) | | | |
| Model14-Model15= -.103*** (.034) | | | |
| Observations | 170,247 | 171,975 | 160,732 |
| $R^2$ | .008 | .015 | .005 |

*** p<.01, ** p<.05, * p<.1, includes dummies for survey years, clustered standard errors in parentheses.

***Table 5.7:*** *Switching from dual job holding to full-time wage employment*

| | (16)<br>Job satisfaction<br>b/se<br><br>n=5.710 | (17)<br>Life satisfaction<br>b/se<br><br>n=6.032 | (18)<br>Leisure time satisfaction<br>b/se<br><br>n=5.609 |
|---|---|---|---|
| *Switching from dual job holding to full-time wage employment* | .047<br>(.040) | .007<br>(.029) | .066*<br>(.038) |
| **Cross-Model Coefficient Comparison** | | | |
| Model16-Model17 =.041 (.042) | | | |
| Model16-Model18=-.019 (.052) | | | |
| Model17-Model18=-.059 (.043) | | | |
| Observations | 10,175 | 10,751 | 9,986 |
| $R^2$ | .000 | .000 | .000 |

*** p<.01, ** p<.05, * p<.1, includes dummies for survey years, clustered standard errors in parentheses.

***Table 5.8:*** *Overview of results of AOD study and replication (study 1 and study 2)*

| Kind of job switch | Results of Ardianti et al. (2022) | Results of replication | Results of extension |
|---|---|---|---|
| ***Switch from full-time wage employment to hybrid entrepreneurship*** | n=710 | n=253, n=249, n=232 | effect on job satisfaction significantly higher than effect on life and leisure-time satisfaction |
| Job satisfaction | (-) n.s. | (-)*** | |
| Life satisfaction | (-) n.s. | (-)** | |
| Leisure time satisfaction | not included | (+ ) n.s. | |
| Mental strain | (+) n.s. | not included | |
| ***Switch from full-time wage employment to full-time entrepreneurship*** | n=567 | n=622, n=585, n=577 | effect on job satisfaction significantly higher than effect on life and leisure-time satisfaction |
| Job satisfaction | (+)*** | (+)*** | |
| Life satisfaction | (+) n.s. | (-) n.s. | |
| Leisure time satisfaction | not included | (-) n.s. | |
| Mental strain | (-) n.s. | not included | |
| ***Switch from hybrid entrepreneurship to full-time entrepreneurship*** | n=111 | n=222, n=217, n=204 | |
| Job satisfaction | (+) *** | (-) n.s. | |
| Life satisfaction | (+)* | (-) n.s. | |
| Leisure time satisfaction | not included | (+) n.s. | |
| Mental strain | (-) n.s. | not included | |
| ***Switch from hybrid entrepreneurship to full-time wage employment*** | n=878 | n=127, n=124, n=114 | |
| Job satisfaction | (-) n.s. | (+) n.s. | |
| Life satisfaction | (-) n.s. | (+) n.s. | |
| Leisure time satisfaction | *not included* | (-) n.s. | |
| Mental strain | (+) n.s. | *not included* | |
| ***Switch from single job holding to dual job holding*** | n=925 | n=4.617, n=4.424, n=4.236 | effect on job satisfaction significantly higher than effect on life and leisure-time satisfaction |
| Job satisfaction | (-) n.s. | (-) *** | |
| Life satisfaction | (-) n.s. | (-) ** | |
| Leisure time satisfaction | *not included* | (+)* | |
| Mental strain | (+) n.s. | *not included* | |
| ***Switch from dual job holding to single job holding*** | n=1.427 | n=6.032, n=5.710, n=5.609 | |
| Job satisfaction | (+) n.s. | (+) n.s. | |
| Life satisfaction | (-) n.s. | (+) n.s. | |
| Leisure time satisfaction | *not included* | (+)* | |
| Mental strain | (+) n.s. | *not included* | |

## 5.4 Extension (study 2)

### *5.4.1 Method*

Does the switch from wage employment to HE has a stronger impact on life satisfaction than it has on job satisfaction? In study 2 we use cross model coefficient comparison (CMCC) to compare the effects of different occupational movement behaviors on different types of well-being outcomes. Specifically, we are interested in finding differences in the effect strength of switching from wage employment to HE across different types of well-being outcomes.

This question entails comparing effect sizes, that in general should not be answered by simply comparing the coefficients but rely on a more formal Wald Test that also includes their standard errors and covariance (Mize et al., 2019). Yet, as both coefficients come from different estimations, they lack a joint covariance needed for this test. To address this issue, we use a stacked regression approach using Stata's *stackreg* command (Tauchmann and Oberfichtner, 2021). Based on this, we applied a linear comparison (using Stata's *lincom*) of the coefficients of the treatment for the different satisfaction levels to test whether the coefficients are jointly zero. If they are not, the effects are truly significantly stronger or weaker and a ranking can be established. The statistical Wald Test is based on the following formular (exemplary for the coefficient comparison of job and life satisfaction):

$$z = \frac{\beta_{job\ satisfaction} - \beta_{life\ satisfaction}}{\sqrt{\sigma^2_{job\ satisfaction} + \sigma^2_{life\ satisfaction} - 2\sigma_{job\ satisfaction,life\ satisfaction}}}$$

### *5.4.2 Results*

Comparing the coefficients by applying CMCC of the respective models of a job-switch, we receive significant differences between the results for job and life satisfaction. Switching to HE out of wage employment has a significant higher impact on an individual's job satisfaction when compared to life satisfaction. As for the switch to HE, we receive the most substantial effect of the switch to full-time entrepreneurship for job satisfaction. The strongest effect on

job satisfaction also holds to be valid for moving to dual job holding.

## 5.5 Discussion

In the following we provide explanations for our main findings and discuss their theoretical and practical implications. Our results suggest that switching from wage employment to HE relates negatively to job and life satisfaction but has no effect on leisure time satisfaction. For a switch from wage employment to full-time entrepreneurship, we find the reverse for job satisfaction resulting in a well-being surplus, but no effects on life and leisure time satisfaction.

### 5.5.1 Contributions to theory

On the one hand, the study at hand contributes to established work-family research, viz. compensation and spillover theory (Champoux, 1978; Staines, 1980; Evans and Bartolomé, 1984), and work-family enrichment perspective (Greenhaus and Powell, 2006; Greenhaus and Beutell, 1985). By connecting our research on HE to work-family literature, our findings suggest that hybrid entrepreneurs experience negative spillovers between domains. We propose that this can be traced back to difficulties in meeting both work and family obligations (Jennings and McDougald, 2007). In contrast, compensation theory would expect that deficiencies in satisfaction in one domain (e.g., work) are compensated by a satisfaction surplus in another, such as family or leisure time (Champoux, 1978; Staines, 1980). However, our findings do not suggest such compensatory effects in HE. Arguing from the work-family enrichment perspective (Greenhaus and Powell, 2006; Greenhaus and Beutell, 1985), hybrid entrepreneurs seem to experience rather depleting than enrichment for example through negative spillovers into the wage employment domain resulting in role conflicts (Rothbard, 2001; Greenhaus and Beutell, 1985; van Sell et al., 1981). Moreover, the novel results of our CMCC indicate that job satisfaction is the strongest predictor in relation to the switch to HE, full-time entrepreneurship and dual job holding, thereby strengthening the argument of role-conflicts in the case that individuals simultaneously also work in wage employment. However, the question still remains somewhat open why the switch from wage employment to HE results in a negative effect on

job and life satisfaction, while having no effect on leisure time satisfaction. Concerning job satisfaction, this might be reasoned in a perceived crisis of time- and resource allocation between wage employment and self-employment (Petrova, 2010b). Furthermore, the positively perceived high degree of autonomy and personal responsibility of self-employment (Benz and Frey, 2008b) can lead to a more negative perception of characteristics and conditions of wage employment. In line with this, Nikolova et al. (2023) for example show that self-employed having employees allows for delegating responsibility, experiencing more sense of control, meaning and well-being at work as compared to wage-employed managers or solo entrepreneurs (which is the case of most hybrid entrepreneurs). Alternatively, it can be argued that differences in coping strategies typically attributed to self-employed and wage employees can occur. Following such reasoning, Nikolaev et al. (2022) suggest that self-employed are more likely to engage in problem-focused coping to overcome challenges, complex and competing occupational demands, while wage employed are more likely to engage in emotion-focused coping. We therefore posit that hybrid entrepreneurs may still be more used to emotion-focused than problem-focused coping. Recent literature on EWB points in the same direction and highlights for example the role of recovery mechanisms to prevent entrepreneurial ill-being (Williamson et al., 2021; Wach et al., 2021). Wach et al. (2021), for example, argue that cognitive demands (challenge stressors) can lead to a positive effect on well-being, while emotional demands (hindrance stressors) are negatively related. Furthermore, having two jobs simultaneously might hinder detachment from work to recover as time spent for the second job comes at the expense of detachment emotionally and physically from the main occupation and vice versa (Boyd et al., 2016).

Second, we also contribute to the emerging literature on EWB with implications not only for HE, but also entrepreneurship in general. For the direct switch to full-time entrepreneurship, we confirm the results of previous literature. Despite higher financial uncertainty, longer working hours and overall more stressful conditions (Ramón-Llorens et al., 2016; Wach et al.,

2020; Binder and Coad, 2013; Carter, 2011), the self-employed report higher levels of well-being than wage employed (Stephan, 2018; Nikolova, 2019; Hessels et al., 2017), particularly in the domain of job satisfaction (Parasuraman et al., 1996; Parasuraman and Simmers, 2001; Stephan, 2018; Loewe et al., 2015). Thus, our findings nuance existing theories of EWB, such as the procedural utility theory, which appears not to hold for hybrid entrepreneurs in our sample. Similarly, in the case of HE, we find little support for the work centrality literature (Loewe et al., 2015; Thompson et al., 1992) and some arguments of the work-family literature, that positive work experience spills over into other life domains (Andersson, 2008; Hessels et al., 2017; Van der Zwan et al., 2018).

In sum, our findings indicate that hybrid entrepreneurs appear to shoulder a double burden. They seem to be less able to rip fruits from the specific "high quality" working conditions conducive to (full-time) self-employment in the short run and simultaneously seem not be able to exploit and enjoy their leisure time because of the longer working hours and the necessity of having to meet obligations from both self-employment and wage employment. Therefore, they may experience little job satisfaction benefits as compared to wage employees switching to full-time self-employment, and less leisure time satisfaction due to high occupational demands. This joins recent debates in EWB literature about the importance of managing time and considering the necessity of recovery and detachment (Williamson et al., 2021; Wach et al., 2021). However, leisure time satisfaction is not exclusively driven by quantitative (reduced time) but also by qualitative components, for example a better perception or a more flexible use of the remaining leisure time. Furthermore, in HE the invested time in the self-employed activity might be perceived as a good investment in self-realization and personal development. Both negative and positive arguments, could result in a compensation effect leading to a non-significant result for leisure time satisfaction. Further research is needed to identify the mechanisms at work.

### *5.5.2 Practical implications*

Concerning practical implications, our results indicate that German HE appears to be only a short "pit stop" (see Table 5.9). We find high fluctuation and comparatively few individuals remain in HE for two consecutive years, implying that individuals in Germany seem to choose the hybrid path not as a desired state but rather as a transit zone on the path to full-time self-employment.

***Table 5.9:*** *Number of distinct individuals for different kind of job switches out of hybrid status in* $t_0$

| **Kind of job switch** | **$t_0$-$t_1$** | |
|---|---|---|
| Remaining in hybrid entrepreneurship | 25 | 6.8 % |
| Switch to full-time wage-employment | 126 | 34% |
| Switch to full-time entrepreneurship | 218 | 59% |
| **Number of all individuals** | 369 | 100% |

Practically, this fluctuation can be explained by hybrid being subject to the same bureaucratic regulations as full-time entrepreneurs (Butkowski et al., 2022). These regulations require strong personal and economic competencies of the individual involved. For hybrids this means many additional strains besides the challenges to their wage employment. In literature, the decision on how long to stay in HE is argued to depend on how fast individuals can reduce uncertainty through learning about their entrepreneurial abilities within the hybrid state (Folta et al., 2010). The hybrid state is used as a specific way to assess conceived business potential, without risking too much (Wennberg et al., 2006). Within the hybrid status, this learning process determines time and resource allocation between both jobs and the decision to either transition to full-time entrepreneurship, remain in hybrid status, or abandon business. For hybrid entrepreneurs, this could imply to balance a certain tradeoff between (desired) benefits from entrepreneurial learning and experiencing and the challenge of effectively managing time and resources. Hybrid entrepreneurs should be aware of the risk that in the short run their expectations of higher job satisfaction might not be fulfilled, and their leisure time affected by combining wage employment with self-employment.

### 5.5.3 Directions for future research

As our study is a replication of AOD (2022), we measure the effect of HE on the subjective well-being of individuals. However, well-being is a multifaceted term with many different dimensions (Ryan and Deci, 2001). Further research should therefore also address the effects of HE on other dimensions such as eudaimonic and physical well-being of individuals. Especially the effect on the eudaimonic well-being is of particular interest as it shows to be affected by self-employment (Nikolaev et al., 2022; Stephan et al., 2020). This also applies to the effects of switching into HE on physical health, as evidence shows that switching to self-employment is found to have positive effects in this respect (Nikolova et al., 2021). In line with self-determination theory, the effect of HE on dimensions of psychological functioning (autonomy, competence, meaningfulness at work, etc.) could be more addressed by future research as these "basic needs" play a crucial determinant in driving EWB (Nikolaev et al., 2020; Stephan et al., 2020; Shir et al., 2019). Finally, future research could use time perspectives to better understand why individuals remain in HE and how their well-being evolves over-time.

### *5.5.4 Limitations*

As we use secondary data, we were not always able to include the same variables compared to the AOD study. For example, due to GSOEP data limitations, we could not use mental strain as a measure of well-being. However, it should be noted that in the AOD study none of the job switches displayed any significant effect on mental strain. Also, our measure of job satisfaction refers to overall job satisfaction, and we were not able to distinguish the satisfaction for the main occupation and the secondary occupation in the case of HE and dual job holding. For the same reason of unavailable data, in contrast to AOD, who used time allocation (hybrid intensity), we used information on income from self-employment to define hybrid entrepreneurs. While this measure has the advantage of being quite inclusive, it does not allow to fully account for the diversity and complexity of HE. Finally, as we were not able to distinguish the satisfaction for the main occupation and the secondary occupation, it may be

that our job switches captured necessity entrepreneurs (individuals driven to enter HE due to dissatisfaction with their wage employment; Nikolaev et al., 2019). We addressed this issue through our panel data and could define occupational choice at some point during the period between t-1 and t and well-being measures at time t. This approach helped to track our variables' causality, yet a weak reverse causality remains.

## 5.6 Conclusion

Overall, we conclude that the results of our study support the research conducted by AOD in showing that the switch to HE results in different effects on the well-being of individuals, especially in comparison to full-time entrepreneurship. By replicating and extending the research triggered by AOD, we present additional empirical evidence and new insights for further research on HE and a better understanding of its effect on well-being for individuals.

# 6. Where to Find my Balance? Organizational Size and its Impact on the Effort-Reward Imbalance of Employees

Meike Stephan • Tobias Scholz • Christian Soost • Arndt Werner

**Abstract**
Current research posits that stress in working life plays an enormous role in mental and physical diseases. Previous research has neglected the impacts of firm characteristics (i.e., size and structure) on work stress and compensating rewards. Therefore, this study investigates how organizational size and organizational structure affect the effort-reward imbalance of employees. Drawing on population ecology theory, we argue that when organizational size increases, complexity must be handled and formalization must occur. Middle-sized organizations are more likely to become trapped in a transition phase from informal to formal structures and suffer from the liability of the middle. Using cross-sectional data of 5,709 employees from the latest available survey of the effort-reward imbalance in the German Socio-Economic Panel (GSOEP), our research findings indicate an inverted U-shaped relationship between organizational size and the employees' effort-reward imbalance. These findings contribute to the emerging research stream on the antecedents of the effort-reward imbalance of employees and provide important implications for practice.

**Keywords**: effort-reward imbalance, organizational size, working conditions, liability of the middle

## 6.1 Introduction

In recent years, stress has gained prevalence in working life, as have its consequences for employees' mental and physical health. Stress at work affects the workforce's health and wellbeing, which consequently increases absenteeism (Darr & Johns, 2008). From an economic perspective, stress at work also has negative impacts by reducing productivity levels and increasing rates of sick leave (Darr & Johns, 2008; Anthony-McMann et al., 2017). As a result, companies should have an inherent interest in avoiding harmful stress at work.

In the literature, two models are widely used to explain the development of stress at work: job demand control (JD-C) and effort-reward imbalance (ERI). The JD-C model describes the emergence of stress through a mismatch between job demands and autonomy at the workplace (Karasek, 1979, van Vegchel et al., 2005a). When faced with high workloads, temporal pressure, and little freedom to make decisions, wage-employed individuals experience more psychological stress (Hessels et al., 2017). The ERI model, in contrast, focuses on stress arising from an imbalance between high levels of professional effort and correspondingly low levels of reward (income, esteem, job security). Here, this imbalance of high levels of effort combined with too little reward is assumed to lead to mental stress, which can even result in cardiological diseases (Siegrist, 1996, Siegrist, 2002, Eddy et al., 2017).

While the consequences of an imbalance between effort and reward have already been thoroughly researched (e.g., van Vegchel et al., 2005b), the antecedents that lead to an ERI are mostly unclear, especially at an organizational level (Weiß & Süß, 2016; Tsutsumi et al., 2002). The present article therefore aims to fill this gap in the research literature by addressing the following research question: *How and under which conditions does organizational size and corresponding organizational structures affect the ERI of employees?*

Drawing on population ecology theory, we argue that organizational size strongly correlates with implemented and formalized structures in an organization (Kim & Gao, 2010). Larger

organizations have to specialize, formalize, and create more rigid hierarchies (Child, 1973; Sirén et al., 2017). Consequently, when organizations grow, they transition from being small organizations with informal structures into being larger organizations with more formal structures (Kim, & Gao, 2010). Organizations in this transformation phase face what past research has described as the "liability of the middle" phenomenon (Hannan, & Freeman, 1977). This phenomenon results in an inverted U-shaped relation between size and the mortality rate of an organization (Wholey et al. 1992), in which the peak reflects the switch from informal to formal structures (Sirén et al., 2017). Proposing an inverted U-shaped relation becomes increasingly relevant in strategic management research (Haans et al., 2016). In this study, the key prediction is that these organizational restructuring processes and disturbances will affect the ERI of employees in middle-sized firms (e.g., Sánchez-Marín et al., 2019). Using cross-sectional data from the 2016 German Socio-Economic Panel (GSOEP) cohort of 5,709 employees, we will test the derived hypotheses.

Our study contributes to the literature in several ways: firstly, to the best of our knowledge, it is one of the first studies to specifically investigate the antecedents of employees' ERI at the organizational level. Secondly, this study reveals the impact of the liability of the middle on employees' wellbeing in organizations. Thirdly, this paper emphasizes the relevance of formalized structures in enabling employees to experience a balanced reward mechanism.

## 6.2 Theoretical Background and Hypotheses

### *6.2.1 The model of the effort-reward imbalance*

In psychology, an individual's effort is defined as a "response to an underlying motivation" (Goldsmith et al., 2000, p.355). Thus, effort is closely related to motivation theory and its derivative, expectancy theory (Goldsmith et al., 2000, Vroom, 1964; Atkinson, 1964). Motives, described as "orientation, disposition, or taste to seek or to avoid various behaviors," result in the expectation that actions will have an anticipated outcome (Goldsmith et al., 2000, p.355).

This reciprocity between effort and outcome is a basic prerequisite in social life and an integral element of the ERI model (Siegrist, 1996). Viewed positively, reward and recognition of an individual's performance by others is of great importance for the individual, its self-esteem, health, and overall wellbeing (e.g., Lakey & Scoboria, 2005; Daniels & Harris, 2000; Merino & Privado, 2015). In the workplace, this consequently leads to an employee having higher motivation (Herzberg, Mausner and Snyderman, 1959; McGregor 1960; Vroom, 1964; Porter and Lawler, 1968). Viewed negatively, if professional performance is not rewarded in the occupational context by superiors or coworkers, psychological stress can be triggered (Jamal, 1984). Thus, the ERI model focuses on reward in the form of positive reward or feedback from superiors and job security which, if missing, result in psychological stress – especially in combination with high professional demands. Some of the basic assumptions of the ERI model are related to Equity Theory induced by Adams (1965). Equity Theory also assumes that individuals' effort evolves by the anticipation or the desire that the "investment" in something will result in valuable returns (Pritchard, 1969). In accordance with Equity Theory a perceived balance is strongly dependent on the perceived balance of investment and return of other individuals with whom the person compares him/herself (Pritchard, 1969). In the ERI Model the comparison with others in order to feel adequately rewarded is rather neglected. The ERI model was first introduced by Siegrist (1996), and it has its roots in the "person-environment fit model" designed by French et al. (1982) and the JD-C model introduced by Karasek (1979). In contrast to these early models, the ERI model draws heavily on personal features, besides focusing on situation-related characteristics (Siegrist, 1996). For example, according to the ERI model, a specific workplace situation that is characterized by high effort (high costs) and low reward (low gains) for the employee counteracts the principles of reciprocity and triggers negative stress in professional life. Gains in terms of the ERI model, on the other hand, build on "status control" (Siegrist, 1996) – the ability to control one's social status (e.g., averting the threat of unemployment), positively influenced by promotions, job security, and the recognition

of supervisors.

Task control is "the working individual's potential control over his tasks and his conduct during the working day." (Karasek, 1979, pp.289–290). This was the dominant factor in the early models. Compared to task control, status control is considered to be of much more fundamental importance for professionals (Siegrist, 1996). According to Siegrist, "it seems less costly to cognitively adapt to a low level of task control than to adapt to a low level of status control" because a loss of task control bears fewer negative and existential consequences than the loss of status control, such as the loss of occupational position (Siegrist, 1996, p.30).

In the ERI model, effort is divided into an extrinsic and an intrinsic form. Intrinsic effort relates to personal traits like propensity to spend effort, ambition to have control, and desire for recognition (Siegrist, 1996, 2002). In contrast, extrinsic effort is related to work pressure due to workload (overtime), time pressure, and work interruptions (Siegrist, 1996). As a result, an ERI can become particularly harmful if it takes a chronic course. Many previous studies have documented that a long-lasting imbalance between invested effort (costs) in the job and received rewards (gains) provokes negative emotions such as anger, resentment, and distress (Siegrist, 1996).

The exposure of an employee to such an imbalance over longer periods can lead to biological changes that affect the release of stress hormones and stimulation of the nervous system. This in turn can increase blood lipids, blood pressure, and inflammation (Dragano et al., 2017). Moreover, several studies have also provided evidence that specific job conditions characterized by high effort and low rewards (job promotion, job security, and monetary and non-monetary rewards) also negatively affect employees' wellbeing (e.g., Selenko et al., 2017) and raise the risk of cardiovascular diseases (Siegrist, 1996; Siegrist, 2002; Tsutsumi & Kawakami, 2004; van Vegchel et al., 2005b). Preckel et al. (2010) found that an imbalance between effort and reward negatively impacts self-reported health. Interestingly, when testing for effort and reward separately, reward had a stronger effect on health than effort. In a

multicohort study with over 90,000 participants, the results suggested that individuals perceiving an ERI had a higher risk for coronary heart diseases (Dragano et al., 2017). Additionally, an ERI's harmful effect is independent of perceived job strain – ERI and job strain showed additive effects (Dragano et al., 2017). Furthermore, an ERI can also negatively affect the level of fatigue and the prevalence of sleep disturbances (Fahlén et al., 2006), which may lead to exhaustion or burnout (Toppinen-Tanner et al., 2002). De Jonge et al. (2000) showed that the combination of high effort and low reward has a more harmful effect than low job control as an ERI is more highly associated with emotional exhaustion, psychosomatic complaints, physical symptoms, and job dissatisfaction. Employees working in the health care sector show an increase in their intention to leave the organization and also the profession when they are exposed to an ERI (Derycke et al., 2010).

So far, little research has investigated the job and environment characteristics that may lead to an ERI. According to Tsutsumi et al. (2002), an ERI can be linked to workplace changes for individuals inside the organization. Here the sensitivity of the ERI was investigated by measuring how it changes in accordance to changes of the working environment of the employee. The investigated changes were change of task, change of department, change of superior, change of responsibility level, and change in workplace demands. Changes perceived as stressful were reflected in an increasing ERI, whereas promotions in the previous year improved the ERI (Tsutsumi et al., 2002). Siegrist suggests interpersonal interventions that might prevent employees from becoming stressed and experiencing an ERI, although these interventions are not explicitly tested (Siegrist, 2002). He specifically addresses the superiors in organizations who should improve their leadership techniques, recognizing their employees more strongly and increasing their rewards. Based on these suggestions, Weiß & Süß (2016) analyzed the effect of transformational leadership on the ERI with the result that transformational leadership shows a balancing effect. Transformational leadership improves employees' rewards by strengthening their esteem and providing better job and career prospects

(Weiß & Süß, 2016). Research has so far neglected the organizational antecedents on ERI, and the impacts of organizational size on ERI remain unclear.

### *6.2.2 Organizational size and the Population Ecology Theory*

As a firm's size changes, there is a shift in the organizational structure. Researchers like Greiner (1998) state that organizations grow over time and that increased size is linked to bureaucratization and an increase in top-down control. Thus, population ecology theory (e.g., Hannan, & Freeman, 1977; Aldrich et al., 1984; Núñez-Nickel & Moyano-Fuentes, 2006) links organization theory to the theory of evolution, suggesting that organizations fight for their survival in competition against other organizations. Similar to nature, there is no overarching best-practice for survival, but rather it is a process of the survival of the fittest. The implications of this are reflected in Hannan and Freeman's question: "Why are there so many kinds of organizations?" Aldrich et al. (1984) associate organizational diversity with the basic evolutionary mechanisms of variation, selection, and retention, leading to the understanding that organizations change over time, new organizations are constantly created, and many disappear from the market (Scholz, & Stein, 2017).

A focus in population ecology theory is on why organizations fail and how this is associated with (1) the liability of newness, (2) the liability of smallness, (3) the environmental conditions when the organization was founded, (4) the evolution and co-evolution in the population, and (5) the degree of adoption in the niche (Kieser, & Ebers, 2014). Following this line of thought, Aldrich and Auster (1986) highlight that smaller organizations have a particular disadvantage against large organizations because smaller organizations lack the opportunities aligned to the economies of scale. Compared to large firms, they also have more problems finding qualified employees and may lack access to capital. Empirical research has found strong evidence that the mortality of organizations initially rises with the growth of the organization until it declines after a peak (Wholey et al. 1992; Amburgey et al. 1994). This phenomenon is the liability of the middle. Hannan and Freeman (1977, p. 946) describe this in their seminal work as follows:

"when the large organizations enter, those in the middle of the size distribution are trapped. Whatever strategy they adopt to fight off the challenge of the larger form makes them more vulnerable in competition with small organizations and vice versa." The underlying inverted U-shaped relationship between a firm's size and mortality (also highlighted by Wholey et al., 1992) reflects the liability of the middle.

Medium-sized organizations in the process of formalizing their structures are often in a transformation phase (Kim & Gao, 2010). This process goes hand-in-hand with a switch from informal structures toward hierarchical and formal structures, an increase in specialization (Sirén et al., 2017), and an eventual increase in strategic management issues (Connell, 2001). Another influence is a lack of strategic decisiveness due to isomorphic tendencies (DiMaggio& Powell, 1983). Young organizations look for guidance, copying their structures and strategies. However, these may not fit their specific organizational context and may lead to a strategic misfit. This mismatch can be dealt with as a small organization, but when the organization grows, the structures will be reinforced, and the misfit will be observable. Consequently, the liability of the middle can also be explained due to structures that need to be changed in the ongoing formalization process. The organization must also create a fitting strategy.

Small organizations typically have environmentally motivated characteristics, aiming to be lean, creative, innovative, agile, and entrepreneurial. In contrast, big companies are often considered stable, financially safe, risk-averse, and a safe bet overall (Lievens et al. 2001; Chapman et al. 2005). Face-to-face contact enables the participation of employees in small firms (employee voice) also reasoned in "loosely structured employee voice mechanisms" what might result in a higher degree of firm innovation (della Torre et al., 2021: 764). Medium-sized enterprises are stuck between those two extremes and are at a tipping point, resulting in pressure to either keep the startup mentality alive (Love, 2016) or grow into a structured organization. A synchronous pursuit of "both worlds" increases organizational complexity (Parker, 2011) and may impact employees' ERI. This links with research into organizational ambidexterity, which

has shown that organizations constantly struggle to find an equilibrium between exploration and exploitation (March, 1991). Gupta et al. (2006) warn that a unilateral focus on exploitation leads to a competency trap, while a unilateral focus on exploration creates a failure trap. Additionally, maximizing ambidexterity, especially in terms of exploration and exploitation, can become unmanageable (He, & Wong, 2004). Especially, the disability to manage ambidexterity increases with organizational size (Choi, Ha, Kim, 2022). As ambidexterity is linked to the people in the organization, the manager plays a particularly crucial role (Mom et al., 2015). Ambidexterity depends on the people and how they are supported by the surrounding structure (Scholz, & Stein, 2017). Ambidexterity is linked to people and in that the founder plays a pivotal role (Ling et al., 2020). Founders struggle with the transition from an informal startup to a formalized organization. Coordination mechanisms are needed to utilize the startup mentality for innovation, exploration, and efficient use of resources (Mom et al., 2009).

Focusing on the workforce, organizations in the transitional phase stop looking to hire creative generalists, preferring to recruit reliable specialists. In the transitional phase, many firms are "stuck in the middle" and demand their employees to be masters of both worlds. This leads to a massive increase in complexity of the organization.

Furthermore, as organizations grow, they may be confronted with structural inertia (Hannan, & Freeman, 1984), making it difficult for them to adapt and create essential structures as they are locked into path dependencies (Sydow et al., 2009).

Organizations also have different degrees of alertness (fitness), that is, different levels of ability to react quickly to challenges (Anderson et al., 1999). Alertness also requires adequate structures for the current organizational size. If an organization is growing rapidly, alertness diminishes, leading to an increase in problems and a potential increase in mortality. For example, if organizations are overwhelmed by the growth and they struggle to recruit new employees, the existing employees have to handle the extended workload. This situation will lead to a lack of alertness and an increase in errors. In addition, the employees will also perceive

this imbalance as a lack of fairness which also lead to a decrease in innovational capacities (Janssen, 2000).

The liability of the middle, however, does not imply that all medium-sized enterprises are struggling with these issues. Many medium-sized enterprises are sufficiently large for an effective and efficient organization. Nevertheless, while there are some very successful medium-sized firms in the market, overall, the liability of the middle phenomenon is predominant. A majority of studies implicate a U-shaped relationship in which medium-sized enterprises have a higher mortality rate than small or big companies. This, consequently, affects employees' ERI as the following section describes.

## 6.3 Hypothesis Development

*The effect of organizational size on the effort-reward imbalance*

While intrinsic effort levels are related to personal traits (Siegrist, 1996, Siegrist, 2002, Joksimovic et al., 1999), extrinsic effort levels are influenced by organizational size and the way this impacts organizational functioning. Due to the liability of the middle, we argue that organizational size and corresponding organizational structures will affect employees' extrinsic effort levels and reward systems, particularly in medium-sized companies. Organizational complexity increases with firm growth due to the increasing number of people, processes, and resources. However, organizations also utilize economies of scale more efficiently as they grow. It has been observed that growing organizations tend to formalize and specialize and are subsequently more hierarchical than small firms (Child, 1973; Sirén et al., 2017). As such, Flamholtz and Hua (2002) posit that if an organization doubles in size in terms of employees, the organization changes entirely. On the individual level, organizational change has been proven to have harmful effects for the individual's health as it increases stress and leads to more "stress-related medication prescriptions for insomnia, anxiety, and depression" (Dahl, 2011:253). Moreover, research has also shown that the tendency to become more hierarchical

can be attributed to a shift toward strategic management (e.g., Connell, 2001). As a result, large organizations are more capable of balancing their working conditions (García-Serrano, 2011) and are more likely to introduce formalized HR departments compared to small- and medium-sized firms (Sánchez-Marín et al., 2019, Saridakis et al., 2013). In addition, a growing organization ideally moves from an informal network of people toward a formalized structured organization. This transition phase can be observed in the increase of reporting (Gallo & Christensen, 2011). Last but not least, as the organization grows, tasks become more specific and task allocations more narrowed. That is, former generalist "all-rounder" employees need to oversee and manage smaller but more specialized fields of activities compared to the tasks they performed when their company was still small (Sadler-Smith et al., 2003). This increases their workload and induces them to intensify their efforts. Thus, arguing that extrinsic effort is accompanied by an increase in organizational size, we derive the following hypothesis:

> *H1: Organizational size has a positive linear impact on the extrinsic effort level of the employee.*

As firms grow and become more formalized, we posit that feedback from the founder dilutes with an increase in size over time and is eventually replaced by a formalized and centralized form of feedback (Katsikea et al., 2011). Moreover, with an increase in organizational size, internal labor markets (ILMs) evolve, providing structured career paths and promotion levels to bind employees to the company in the long term (Hollister, 2004; Kalleberg & van Buren, 1996). In other words, ILMs are more common in more formalized and institutionalized organizational environments and can be regarded as institutionalized practices (Pfeffer & Cohen, 1984). Kalleberg and van Buren (1996) have shown that ILMs are the predominant characteristic that explains the reward structure associated with increased organizational size. They found a positive relationship between organizational size and employee reward attributed to the tendency of organizations with ILMs to pay higher wages. It is well documented that an increase in organizational size leads to higher wage levels and more fringe benefits (e.g.,

Hollister, 2004; Pedace, 2010; Kalleberg & van Buren, 1996). From a theoretical perspective, the organizational size can positively impact employees' wage levels due to a sorting effect of the employees (e.g., higher qualified applicants feel more attracted to larger organizations), the market environment, the presence of labor unions, and the organizational structure (Hollister, 2004). When also considering the "small is beautiful" scenario, working in smaller firms is positively affected by close relations, less bureaucratization and "family style" that reduces the levels of conflict in the organization (Wilkinson, 1999: p. 207). These positive characteristics of the "small house" might balance the characteristics associated with the "bleak house" scenario (Sisson 1993; Rainnie, 1985, 1989). The "bleak-house" scenario highlights that small firms pay lower wages, have limited access to labor unions and offer a more insecure workplace for employees (Wilkinson, 1999). An organization's possibility of balancing the "bleak house" scenario with the "small is beautiful" scenario -to argue with these scenarios- is only possible up to a certain growth point of the organization. As the organization grows, the informal family character decreases, but at the same time wages do not necessarily grow. However, when transitioning from informal to formal structures, organizations struggle to survive (Sirén et al., 2017). Consequently, there may be a lag in formalization if the management is overwhelmed with the transformation and needs to improvise (de Haan et al., 2007). Furthermore, the management might be overwhelmed with simultaneously managing the transformation process and ensuring that a sufficiently rewarding mechanism remains. When informal procedures have reached their limits and formal structures have not yet been implemented, especially at the leadership level, the organization cannot adequately function (Lepoutre & Heene, 2006). In sum, these problems impact employees as they influence reward structures: informal reward, such as praise by the founder, is no longer possible. Due to the liability of the middle and the transition phase from informal to formal, there is an observable struggle to reward the employees efficiently. Informal rewards decrease substantially, but the formal reward structures have not yet been implemented. Therefore, we propose that the U-shaped relationship between

size and mortality rate (as described in the liability of the middle phenomenon, Wholey et al., 1992) is also reflected in the relationship between reward and organizational size. Thus, we expect that:

*H2: Organizational size has a U-shaped relationship with employee reward.*

Based on this assumed U-shaped relationship and the linear effect of effort with firm size, we conclude the following impact of increasing organizational size on the ERI of employees:

*H3: Organizational size and ERI are characterized by an inverted U-shaped relationship.*

## 6.4 Method and Data

### *6.4.1 Sample*

The GSOEP study provides the data for our study. It is a wide-ranging annual representative longitudinal study of private households, conducted from the German Institute for Economic Research, DIW Berlin. The data contains information from nearly 15,000 households and more than 25,000 individuals. The data provide information on all household members, including Germans living in the Eastern and Western German states, foreigners, and immigrants to Germany. In 2016, the ERI questionnaire (e.g., Siegrist et al. 2004) was included as a special section of the GSOEP survey. Due to the study subject, only participants in the labor market were considered. Therefore, the available sample size dropped to $N$ = 15,630. After including all study variables (see next paragraphs for further details), participants with missing values were excluded and $N$ = 5,709 participants remained.

### *6.4.2 Measures*

*Dependent variables*

The ERI is measured as the ratio of reward and effort (Siegrist, 2002). The reward and effort items and related descriptive statistics are shown in the following Table 6.1. All items were measured on a four-point Likert-scale ranging from strongly disagree to strongly agree; the ERI questionnaire in the SOEP survey was the shortened version (Siegrist et al., 2009). The short version provides satisfactory psychometric properties as internal consistency of scales and a good model fit of the data with the theoretical structure measured by a confirmatory factor analysis (Leineweber et al. 2010). The reward items were split into the following components: esteem, job promotion, and job security. Reverse coded items were recorded to build the sum indices used for the ratio. Scale reliability was tested by Cronbach's Alpha and both the effort and reward scale exceeded the generally accepted minimum requirement of 0.6 (Peterson, 1994) with 0.7 and 0.77 respectively. Common method bias was checked by Harman's single-factor test. The result shows that a single factor accounts for 26% of the variance so there is no indication that common method bias is present in the study.

***Table 6.1:*** *Short version questionnaire of the ERI*

| Items | min | max | m | sd |
|---|---|---|---|---|
| **Effort** | 3 | 12 | 7.9 | 2.2 |
| I have constant time pressure due to a heavy workload. | | | | |
| I have many interruptions and disturbances in my job. | | | | |
| Over the past few years, my job has become more and more demanding. | | | | |
| **Reward** | 7 | 28 | 19.1 | 4.1 |
| **Reward component esteem** | 2 | 8 | 5.4 | 1.7 |
| I receive the respect I deserve from my superiors. | | | | |
| Considering all my efforts and achievements, I receive the respect and prestige I deserve at work. | | | | |
| **Reward component job promotion** | 3 | 12 | 7.1 | 2.1 |
| My job promotion prospects are poor. (r) | | | | |
| Considering all my efforts and achievements, my work prospects are adequate. | | | | |
| Considering all my efforts and achievements, my salary/income is adequate. | | | | |
| **Reward component job security** | 2 | 8 | 6.6 | 1.4 |
| I have experienced or I expect to experience an undesirable change in my work situation. (r) | | | | |
| My job security is poor. (r) | | | | |
| **Effort-reward ratio** | 0.25 | 4 | 1.0 | 0.5 |

The ratio is computed according to the formula erc, where *e* is the sum score of the effort items, *r* is the sum score of the reward items, and *c* is a correction factor. The correction factor depends on the items used in the numerator and denominator of the ratio. According to the short version of the ERI questionnaire, the correction factor is c=37. Thus, small values for the ERI indicate a favorable condition, whereas values above 1 indicate an imbalance of effort and reward. Where the value is above 1, the spent effort is not met by the rewards (Siegrist et al., 2004).

*Independent variables*

*Organizational size* was measured by seven ascending categories and served as a proxy for

hierarchical structures (Child, 1973; Sirén et al., 2017). The frequency distribution of the sample (shown in Table 6.2) is equivalent to the frequency distribution of Germany (German Federal Statistical Office, 2019).

***Table 6.2:*** *Descriptive statistics of control variables and the independent variable of interest*

| Variable | n | % | Variable | n | % |
|---|---|---|---|---|---|
| **Organizational Size** | | | **Employment Status** | | |
| < 5 | 223 | 3.9 | Full-time employment | 3884 | 68.0 |
| 5-10 | 373 | 6.5 | Regular part-time | 1542 | 27.0 |
| 11-20 | 437 | 7.6 | employment | 145 | 2.5 |
| 20-100 | 1006 | 17.6 | Vocational training | 138 | 2.4 |
| 100-200 | 585 | 10.2 | Marginally employed | | |
| 200-2000 | 1432 | 25.1 | | | |
| 2000+ | 1653 | 28.9 | **Gender** | 2767 | 48.5 |
| | | | Male | 2942 | 51.5 |
| **Industry Occupation (NACE aggregated)** | | | Female | | |
| Agriculture | 78 | 1.4 | **Duration of work contract** | 4991 | 87.4 |
| Energy | 85 | 1.5 | Permanent job | 718 | 12.6 |
| Manufacturing | 1340 | 23.5 | Temporary job | | |
| Construction | 303 | 5.3 | | | |
| Trade | 619 | 10.8 | | | |
| Hotel & Restaurants | 157 | 2.8 | **Work schedules** | 2168 | 38.0 |
| Logistics | 334 | 5.9 | Fixed working time | 1395 | 24.4 |
| Credit & Insurance | 188 | 3.3 | Alternating working time | 476 | 8.3 |
| Business Services | 985 | 17.2 | Self-determined working time | 1670 | 29.2 |
| Health & Society Services | 1620 | 28.4 | Working time account | | |
| | | | | | |
| **Civil service job** | | | **Secondary employment** | 500 | 8.8 |
| Yes | 1546 | 27.1 | Yes | 5209 | 91.2 |
| No | 4163 | 72.9 | No | | |
| | | | | | |
| | | | **Works council** | 3467 | 60.7 |
| | | | Yes | 2242 | 39.3 |
| | | | No | | |

*Control variables*

We included control variables to adjust for possible confounding effects. The control variables were selected according to the usual socio-demographic controls used in ERI research – age,

employment status, gender, gross income, and amount of education or training (e.g., Siegrist et al. 2004; Tsutsumi & Kawakami 2004). The average worker was 43.1 years old (*SD* = 10.7); employment status was either full-time (68.0%), regular part-time (27.0%), in vocational training (2.5%), or marginally employed (2.4%). The gender distribution was almost balanced, with 48.5% male employees and 51.5% female employees. The average gross monthly income was 2,700 Euro (*SD* = 1,400).

The amount of education or training was the number of years employees had spent in education, including school, university, and professional training (*M* = 12.9, *SD* = 2.7). We decided to use the amount of education or training instead of usual controls (e.g., principle and higher education) because the German education system differs from those of other European countries and the US (Deissinger, 2015). In Germany, university education and the dual system with two learning venues (apprenticeship funded by the company and part-time vocational school) are partly equivalent degrees, and professional training is important in the German labor market. As such a classic dummy differentiation for education seems inappropriate in this case. Additionally, we added industry occupation, secondary employment, duration of the work contract, working hour possibilities, overtime last month, and employee tenure as control variables. Descriptives and frequencies are listed in Tables 6.2 and 6.3.

***Table 6.3:*** *Descriptive statistics of metric control variables*

| Variable | m | sd |
|---|---|---|
| Age | 43.1 | 10.8 |
| Amount of education/training (years) | 12.9 | 2.7 |
| Overtime last month (hours) | 10.1 | 10 |
| Organizational tenure (years) | 10.5 | 9.3 |
| Gross income (monthly in K Euro) | 2.7 | 1.4 |

The duration of the work contract (permanent vs. temporary) may influence employee effort if

a temporary job can offer access to a permanent job, thus serving as an incentive to a higher level of effort (Engellandt & Riphahn, 2005). Thus, we decided to include the duration of work contract as control variable. Most of the employees included in the survey had a permanent job (87.4%) rather than a temporary job (12.6%).

Zickar et al. (2004) compared holders of multiple jobs and holders of a single job and found evidence that holders of multiple jobs had higher satisfaction, higher stress, and higher affective organizational commitment with their primary jobs compared to their secondary jobs. Additionally, people may have different motives for holding more than one job, such as the need for additional income or to broaden job opportunities (Kottwitz et al., 2017). These motives may have an influence on effort and reward evaluation (Webster et al., 2019), so we added this control variable. Only 8.8% of the survey participants had a secondary employment; 91.2% had only single employment.

The flexibility of work schedules was also chosen as a control variable because flexibility affects productivity, performance, job satisfaction, and absenteeism (Baltes et al., 1999; Pritchard et al., 1980). The work schedules are differentiated by fixed working hours (38.0%), alternating working hours (24.4%), self-determined working hours (8.3%), and a working time account (29.2%).

A further control variable is the existence of a works council due to the special German labor market. Overall, 60.7% of the survey participants reported having a works council in their firm. The larger the size of the company, the more likely it is to have a works council. Works councils are also more prevalent in companies in the civil service due to German government policy.

Overtime was also selected as a control variable as it may affect the results. At first glance, overtime only suggests that employees invest more effort and reduce recovery time. However, this increased effort can lead to expected financial compensation. If overtime is unpaid, the increased effort can lead to increased career expectations (Anger, 2008). Thus, if overtime has a signaling effect (Booth et al., 2003; Anger, 2008), it may influence the reward component of

the ERI model such that it is necessary to include overtime as a control variable. We decided to use the previous month's overtime in hours ($M$ = 10.1, $SD$ = 10.0) as the best proxy for the intensity of the overtime load instead of a simple dummy variable for the existence of overtime. Organizational tenure is defined as the length of employment in an organization (McEnrue, 1988) and must be distinguished from the length of time in one position. It has been considered as an indicator of work experience as work skills and knowledge about the organization is time-dependent (Bird, 1996). Therefore, organizational tenure can be regarded as a human capital measure. However, an employee's knowledge of the organization may affect their evaluation of job promotion opportunities and job security, which are variables of the reward measure in the ERI model. For example, employees who have only been with the company for a short time may assess the chances of promotion differently than employees who have been with the company for a longer time. Similarly, employees who have been with the company for a longer time can better assess the company's resilience and thus job security. Therefore, organizational tenure is included as a control variable. The average employee had worked for 10.5 years ($SD$ = 9.3) at the organization.

### *6.4.3 Data Analysis*

Three ordinary least square regressions were used to test the hypotheses. In the first step, we calculated Models 1 and 2 with the dependent variables – effort and reward – to analyze the effects without combining them in a ratio. In the second step, the ratio was tested in Model 3. Regression diagnostics for all three models showed no multicollinearity problems (VIF ranging from 1.2 to 2.4) and no abnormal influential data points measured by Cook's distance and leverage analysis. The Ramsey RESET test for misspecification was performed. According to the test results, the independent variables of age, amount of education or training, organizational size, overtime last month, and employee tenure needed to be adjusted according to quadratic and cubic effects (further details in the following results section). To meet the requirement of

normally distributed residuals, the dependent variable ERI in Model 3 is logarithmized; Models 1 and 2 show normally distributed residuals. Tests for autocorrelation (Durbin-Watson) and heteroskedasticity (Goldfeld-Quandt) were non-significant and thus the data show no autocorrelation or heteroskedasticity problems. Additionally, we tested the robustness of the model using *k*-fold cross-validation. We observed only marginal differences in the model results (parameter values) independently from *k* (*k* = 5 to *k* = 10), so the model can be considered robust. Additionally, the model parameters were then tested for a possible over- and underfitting by applying the parameters of the model estimates from the training data to the test data. There are no major differences between the model results in the training and test data, so there is no indication of possible over- or underfitting.

### *6.4.4 Results*

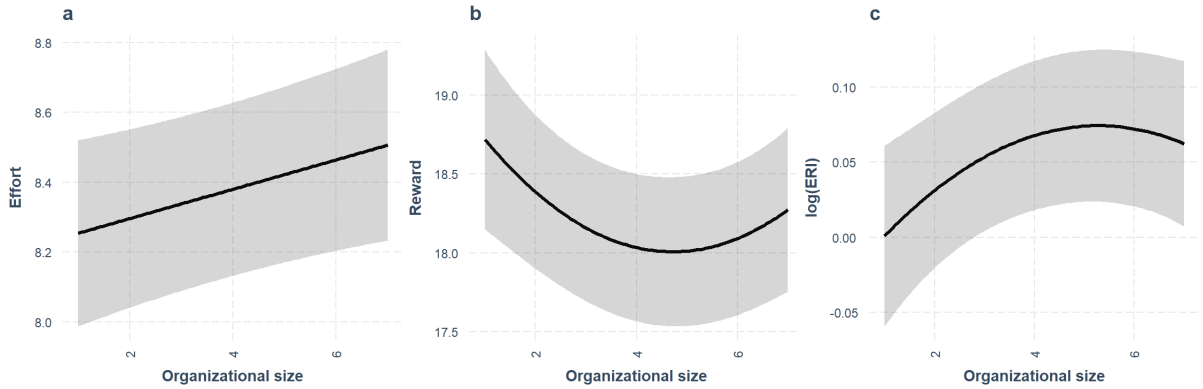
Table 6.4 shows the regression coefficients predicting effort (Model 1), reward (Model 2), and log(ERI) (Model 3). For a better understanding of the effects, an effect plot is shown in Figure 1 for the effects of organizational size on effort, reward, and log(ERI). The gray hatched area shows according to confidence interval limits. As assumed in hypothesis 1, there was a statistically significant linear effect of organizational size on the effort level (Figure 6.1a), a significant U-shape effect on reward, and a significant inverted U-shaped effect on ERI. For both reward and log(ERI), the organizational size variable and the squared term were statistically significant. Beginning at micro firms, an increase in organizational size negatively influences the reward structures due to the lack of informal reward processes. This decrease in informal reward reaches a turning point at mid-size firms with 100–200 employees (-b12b2≈5); after this point, reward increases again (Figure 6.1b). The reversed U-shaped effect on the ERI shows that increasing organizational size increases the imbalance of effort and reward up to mid-size firms (-b12b2≈5). After this point, the imbalance of effort and reward decreases again (Figure 6.1c). Thus, H1, H2, and H3 can be confirmed.

***Table 6.4:*** *Coefficients of OLS regression models*

| | Effort (1) | | Reward (2) | | log(ERR) (3) | |
|---|---|---|---|---|---|---|
| | B | s.e. | B | s.e. | B | s.e. |
| Gender (ref=Male) | 0.47*** | 0.07 | -0.07 | 0.13 | 0.06*** | 0.01 |
| Age | -0.19** | 0.09 | 0.38** | 0.17 | -0.06*** | 0.02 |
| Age2 | 0.00** | 0.00 | -0.01*** | 0.00 | 0.00*** | 0.00 |
| Age3 | -0.00** | 0.00 | 0.00*** | 0.00 | -0.00*** | 0.00 |
| Amount of education/training | 0.16 | 0.11 | -0.38* | 0.20 | 0.04* | 0.02 |
| (Amount of education/training)2 | -0.00 | 0.00 | 0.01* | 0.01 | -0.00 | 0.00 |
| | | | | | | |
| Civil service job | -0.03 | 0.08 | -0.18 | 0.15 | 0.01 | 0.02 |
| Secondary employment | -0.05 | 0.10 | 0.17 | 0.19 | -0.01 | 0.02 |
| Work schedules (ref.=Fixed working time) | | | | | | |
| Alternating working time | 0.07 | 0.07 | -0.28** | 0.14 | 0.03** | 0.01 |
| Self-determined working time | 0.07 | 0.11 | 0.13 | 0.21 | 0.01 | 0.02 |
| Working time account | 0.23*** | 0.08 | -0.05 | 0.15 | 0.04** | 0.02 |
| Employment status (ref.=Full time employment) | | | | | | |
| Regular part-time employment | -0.43*** | 0.08 | 0.90*** | 0.16 | -0.11*** | 0.02 |
| Vocational training | 0.28 | 0.23 | 1.57*** | 0.43 | -0.06 | 0.05 |
| Marginally employed | -1.27*** | 0.20 | 1.61*** | 0.38 | -0.29*** | 0.04 |
| Gross income | 0.14*** | 0.03 | 0.70*** | 0.06 | -0.02*** | 0.01 |
| Industry Occupation (ref.=Health & society services) | | | | | | |
| Agriculture | -0.61*** | 0.25 | 0.05 | 0.47 | -0.11** | 0.05 |
| Energy | -0.08 | 0.24 | -0.17 | 0.45 | 0.00 | 0.05 |
| Manufacturing | -0.27*** | 0.10 | -0.13 | 0.18 | -0.03 | 0.02 |
| Construction | -0.12 | 0.14 | -0.00 | 0.27 | -0.01 | 0.03 |
| Trade | -0.10 | 0.11 | -0.02 | 0.21 | -0.01 | 0.02 |
| Hotel & Restaurants | 0.07 | 0.18 | -0.22 | 0.34 | 0.03 | 0.04 |
| Logistics | -0.34** | 0.13 | -0.80*** | 0.25 | 0.01 | 0.03 |
| Credit & Insurance | -0.35** | 0.17 | 0.17 | 0.32 | -0.05* | 0.03 |
| Business Services | -0.18* | 0.09 | -0.16 | 0.17 | -0.01 | 0.02 |
| Works council | -0.05 | 0.08 | 0.11 | 0.15 | -0.01 | 0.02 |
| | | | | | | |
| Organizational size | 0.04* | 0.02 | -0.49*** | 0.16 | 0.04** | 0.02 |
| (Organizational size)2 | | | 0.05*** | 0.02 | -0.00** | 0.00 |
| Overtime | 0.06*** | 0.01 | -0.01*** | 0.01 | 0.01*** | 0.00 |
| Overtime2 | -0.00*** | 0.00 | | | -0.00*** | 0.00 |
| Temporary job (ref.=Permanent job) | -0.43*** | 0.11 | -0.34 | 0.20 | -0.04* | 0.02 |
| Organizational tenure | 0.17*** | 0.02 | -0.30*** | 0.05 | 0.04*** | 0.00 |
| (Organizational tenure)2 | -0.01*** | 0.00 | 0.01*** | 0.00 | -0.00*** | 0.00 |
| (Organizational tenure)3 | 0.00*** | 0.00 | -0.00*** | 0.00 | 0.00*** | 0.00 |
| Constant | 7.54*** | 1.44 | 19.94*** | 2.72 | -0.04 | 0.29 |
| Adj. R2 | 0.11 | | 0.07 | | 0.09 | 0.24 |
| F | 23.76*** | | 14.12*** | | 17.65*** | |
| Observations | 5,709 | | 5,709 | | 5,709 | |

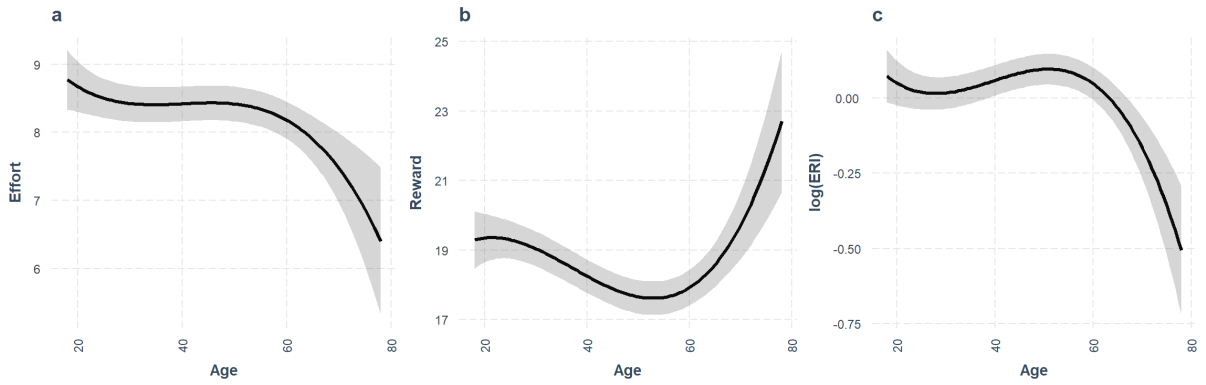
*** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.1$

***Figure 6.1:*** *Graphic display of the effects of organizational size on effort, reward, and log(ERI)*



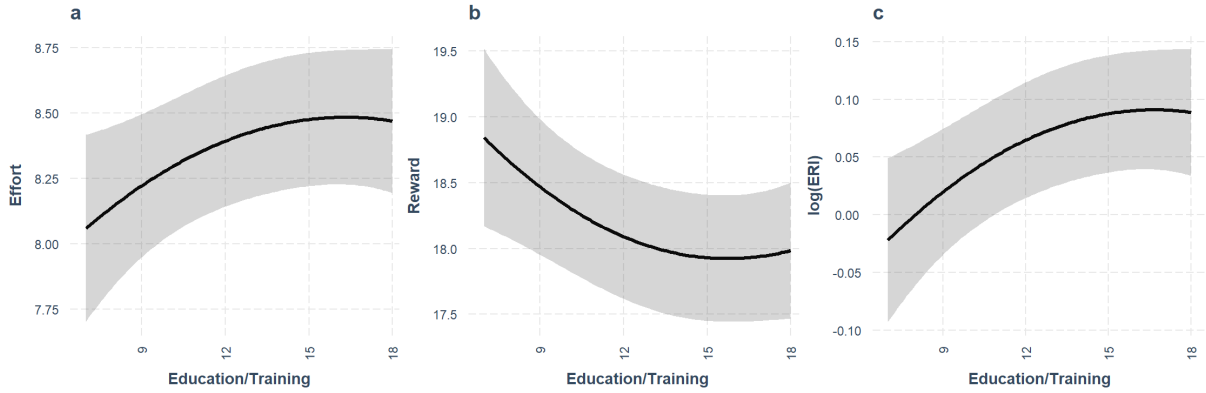

The control variables showed interesting effects. Only the civil service job dummy, the works council dummy, and the secondary employment dummy had no statistically significant effects. Women evaluated the effort ($b = 0.47$, $p \leq 0.001$) and the ERI ($b = 0.06$, $p \leq 0.001$) higher than men. Women showed a 6% higher ERI than men. For the reward model, the gender dummy was not statistically significant. Employee age had a significant cubic effect on effort (Figure 6.2, Model a), reward (Figure 6.2, Model b), and the log(ERI) (Figure 6.2, Model c). The effort level remains constant for a long time until reducing at an older age. Approaching retirement age, the reward falls slightly in comparison to young employees, before rising sharply for employees who work voluntarily. These employees are very often experts who are difficult to replace by younger employees or help to transfer tacit knowledge (e.g., Beazley et al., 2002). Therefore, they are of great value to companies; this is reflected in the reward level. Accordingly, the ERI rises slightly until retirement age and then falls sharply.

***Figure 6.2:*** *Graphic display of the effects of age on effort, reward, and log(ERI)*




The amount of education or training had a weak significant negative effect on the reward level and a weak positive effect on the ERI. The effort level was not affected significantly by the human capital level. Thus, at a 10% significance level, additional education leads to a lower valuation of the reward. At the same time, this imacts the ERI, which increases with the length of education, although this is only weakly significant for the non-squared regression term. Rising reward expectations due to higher education are not met, resulting in an increased imbalance.

***Figure 6.3:*** *Graphic display of the effects of the amount of education/training on effort, reward, and log(ERI)*




In comparison to the fixed working time, we observe some significant effects on the observed work schedules. A working time account has a higher effort consequently (b=0.23, p≤0.01), thus work time flexibility increases effort (Kelliher & Anderson, 2010). Only an alternating

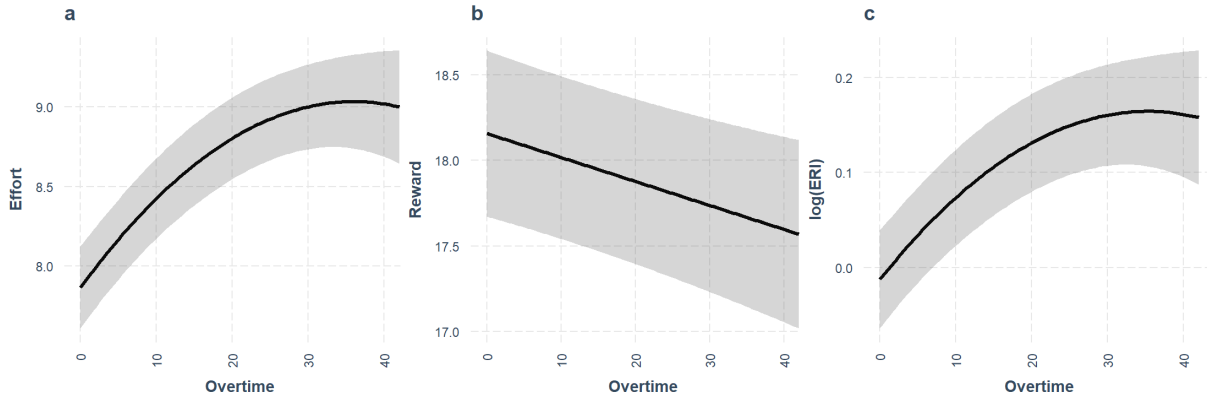
working time was found to lead to a significant lower reward than fixed working hours ($b = -0.28$, $p \leq 0.05$). These effects are reflected in the increase in ERI for the alternating working time ($b = .03$, $p \leq 0.05$) and the working time account ($b = .04$, $p \leq 0.05$).

Employment status had several effects on effort, reward, and ERI. The reference category for the employment status dummy variables is full-time employment. Regular part-time employment led on average to a lower effort ($b = -0.43$, $p \leq 0.001$), a higher reward ($b = 0.90$, $p \leq 0.001$), and consequently to an average 11% lower ERI ($b = -0.11$, $p \leq 0.001$) than full-time employment. Vocational training only had a significant positive impact on the reward level ($b = 1.58$, $p \leq 0.001$). Marginally employment also resulted in a lower effort ($b = -1.28$, $p \leq 0.001$), a higher reward ($b = 1.61$, $p \leq 0.001$), and a lower ERI ($b = -0.29$, $p \leq 0.001$) than full-time employment, but with a much greater absolute effect. The ERI was 29% lower for marginally employed employees compared to employees in full-time.

For the industry occupation dummy variables, we chose health and society services as a reference category. The agriculture ($b = -0.61$, $p \leq 0.05$), manufacturing ($b = -0.27$, $p \leq 0.01$), logistics ($b = -0.34$, $p \leq 0.05$), credit and insurance ($b = -0.35$, $p \leq 0.05$), and business services ($b = -0.18$, $p \leq 0.1$) sectors showed a significantly lower effort level than the health and society services. Like previous studies, our results show how high the workload in the health and society industry is. No significant differences were found between the effort level of the energy, construction, trade, and hotel and restaurants sectors and the health and society sector. For the reward regression, only the logistics industry occupation showed a significantly lower reward ($b = -0.80$, $p \leq 0.01$) than health and society services. Regarding the ERI, only the agriculture sector ($b = -0.11$, $p \leq 0.05$) showed a significantly lower imbalance than health and society services. In summary, it can be said that sector differences play a minor role.

Figure 6.4 shows the effect plots of overtime on effort (a), reward (b), and log(ERI) (c). Overtime has a significant reverse U-shaped relationship with effort and ERI and a negative relationship with reward ($b = -0.01$, $p \leq 0.01$).

***Figure 6.4:*** *Graphic display of the effects of overtime on effort, reward, and log(ERI)*

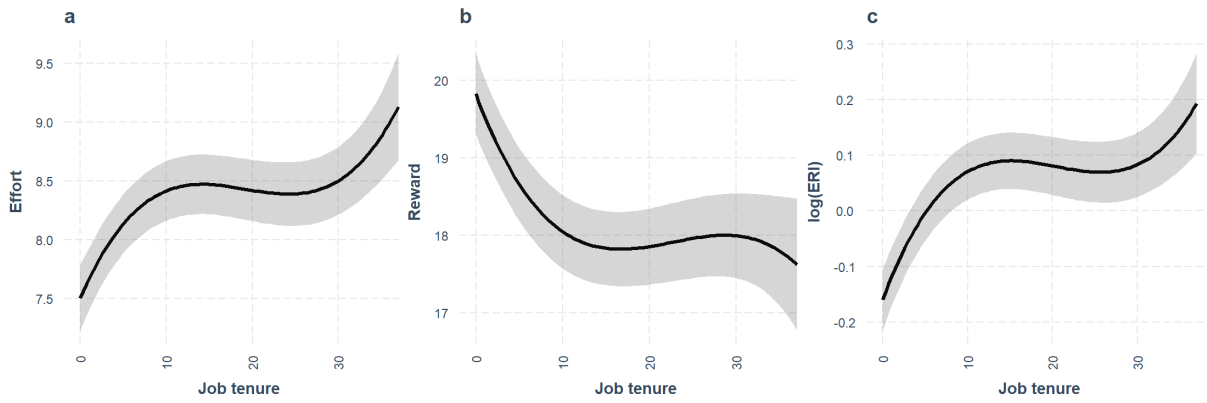



Higher numbers of hours worked overtime led to higher evaluation of effort with a peak at -b12b2≈36 hours and a higher ERI with a peak at -b12b2≈36 hours. The data show that every additional hour of overtime lowers the employees' perception of reward. This could be explained by a diminishing return of overtime pay for the individual. People perceive the relationship between time and money differently depending on the amount of overtime they conduct.

Employees with a temporary job showed a significantly lower average effort ($b = -0.43$, $p \leq 0.001$), a lower average reward ($b = -0.34$, $p \leq 0.10$) and a lower average ERI ($b = -0.04$, $p \leq 0.10$) than employees with a permanent job. This result is surprising since fixed-term contracts can serve as an incentive to a higher level of effort (Engellandt & Riphahn, 2005); in our data, this is not the case.

Figure 6.5 shows the significant cubic effect of job tenure on effort (a), reward (b), and the ERI (c). In the first 10 years of organizational tenure, the effort rises strongly, then remains constant for nearly 20 years before rising again. Figure 6.5 (b) shows that this effect is the opposite for the reward evaluation. Consequently, with increasing organizational tenure, the ERI rises, then remains almost constant from 10 to 30 years before rising again (Figure 6.5c).

***Figure 6.5:*** *Graphic display of the effects of job tenure on effort, reward, and log(ERI)*




## 6.5 Discussion

Our study aimed to investigate whether organizational size impacts the ERI of the employee, especially under the assumption of a transition from informal to formal structures associated with increasing size. We found strong evidence that organizational size affects the ratio of effort and reward and that employees in middle-sized organizations in particular struggle to balance effort and reward in their workplace. This deviates from the assumption that bigger is better, and economies of scale are generally the forces driving organizational growth. The results highlight that there is a peak to overcome before large companies can benefit from the size and utilize it to improve the reward structures for the employees. Dekker and Barling (1995) discovered that differences in support that organizations give to their employees are linked to organizational size. They highlighted that employees perceive the organizational support either from an objective or subjective perspective. An increase in objective support was found to be linked with an increase in organizational size. However, subjective support was found to be often perceived in smaller organizations. This aligns with the transformation from informal to formal structures but does not mention the struggle within the transformation phase. Furthermore, our results are in line with the findings of Kalleberg and van Buren (1996) – reward is higher in large organizations than in small organizations.

### *6.5.1 Theoretical Contribution*

The study reveals several theoretical contributions, especially concerning organizational size. Most of the literature relies on the understanding that small organizations have a lower survivability rate than larger organizations, due to the liability of smallness, as described by Kalleberg and van Buren (1996) bigger seems, in general, to be better. In the research literature, this paradigm seems to be the prevailing hypothesis for any organization. With growth, economies of scale emerge and underline that bigger is better. Nevertheless, Greiner (1998) highlights that bigger organizations may have increased complexity and increased inertia (Kelly & Amburgey, 1991). However, there is a lack of research on the liability of the middle – apart from Wholey et al. (1992). This study shows that a peak in the middle is observable between 100 and 200 employees; this co-aligns with the literature. This may be because an informal network can still work up to 100 employees, yet the management may delay formalization since such efforts are costly (Wickert et al., 2016). In the logistics industry, Mentzer (2001) demonstrate that such a changing point is observable at 150 employees. Consequently, the employees still receive sufficient informal rewards up to the number of 100 employees. Within the 100–200 threshold, they receive less reward, and the organization transforms from an informal network toward a formalized organization. At this point, intrinsic motivation is swapped with external motivation efforts, and the organization's flexibility is replaced by bureaucratization processes. This transformation is mostly carried by the workforce. Furthermore, due to the implementation lag, when a company has between 100–200 employees, they receive low reward for their work and thus have a high ERI. At this stage, although the effort level gradually increases, the informal reward mechanisms no longer function, and the formal reward mechanisms are yet to be implemented. These results highlight the assumption of Hannan and Freeman (1977) that organizations might become trapped in transitioning from a small organization into a large organization. However, the reason for becoming trapped may not be because of fighting the challenge of growing structures, but due to the struggle to bring

the ERI back to an acceptable level.

### *6.5.2 Managerial Contribution*

The results of our study have several managerial contributions, especially for medium-sized enterprises. Our study indicates that as organizations grow, it becomes increasingly difficult to provide sufficient reward, especially non-monetary reward, through informal structures. In smaller companies, the founder can give simple praise; as a company grows, it becomes more difficult for the founder to give individual praise, and this must be replaced by formal structures. Our results allow us to conclude that the combination of undeveloped formal structures and organizational growth reaches a negative peak at an organizational size of 100–200 employees – these organizations struggle to overcome the transformation phase. Our findings indicate that larger organizations with formal structures are better at rewarding employees through formal feedback mechanisms, such as structured appraisal interviews and better job prospects in terms of promotion and job security. Moreover, it is well known that as organizational size increases, employees' wages (firm size wage effect) and fringe benefits also increase (Hollister, 2004; Pedace, 2010; Kalleberg & van Buren, 1996). In our model, we controlled for gross income to better investigate the effect of non-monetary and non-tangible rewards, considering that these rewards might increase with formalization. Regarding both the effect of income on employee reward and the overall effect of increasing size on employee reward, our results are consistent with the findings of Kalleberg and van Buren (1996). Along with the reward items encompassed in the ERI model, Kalleberg and van Buren (1996) measured reward by fringe benefits, earnings, promotions, and the level of autonomy. Our results show that it is important for middle-size companies which might lack the resources to pay higher wages and give fringe benefits – to improve non-monetary and intangible incentives, especially job security, promotion prospects, and recognition of employees' effort. This can improve the ERI. Overall, our results lead us to conclude that a growing organization must ensure that an increase in size does not decrease the reward for the employee. Organizations must develop either strategies

that replace feedback from the founder or mechanisms that forward feedback to other superiors of the employee, even if structures have not yet been developed. The results highlight that the organization plays an integral role in tackling the ERI. This confirms the assumptions of the model. Organizations must take care of "the design and implementation of worksite stress prevention and health promotion programs" and the improvement "of non-monetary gratifications" (Siegrist, 2002, p. 286). The management of organizations should improve leadership techniques and skills to increase reward mechanisms (Siegrist, 2002). Leadership approaches enhancing the esteem of the workforce lead to an improvement of the ERI (Weiß and Süß, 2016).

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

Our study has some limitations that can direct future research in this important and interesting research field. First, this study focuses on the German job market, which has a unique situation. Thus, the results are context specific. It would be interesting to observe if the results relating to ERI are different in an international comparison. It would be interesting to investigate whether the ERI peaks at different points in different contexts and what contributes to a shift in that peak. Future research could investigate whether the main driver of imbalance – the lack of reward in the transformation phase from informal and formal structures – is the same in different countries and different national cultures. As the results of our study are based on cross-sectional data, it would be interesting to investigate whether a change of the workplace – connected with a change of the size of the organization the individual is working in – also results in a change of the ERI. To obtain further and more specific results, panel data should be collected to encompass more organizational context factors. Finally, this study shows that organizational factors influence the ERI of individual employees and reveals that organizational size and structure can alter the ERI. However, there may be many other organizational factors that might influence the ERI, such as the organizational age, the degree of internationality, and many others. In particular, the current Covid-19 pandemic and the observable move toward remote

work in terms of digital affordances might impact the ERI in ways that are not yet predictable (see e.g., Torrès, et al.; 2022; Meurer et al., 2022) Working from home will fundamentally change the organizational structure and how organizational size is perceived, so it will have some impact on the ERI. This will be an interesting research topic for the future. It would be interesting to investigate more specifically how works councils might affect the ERI of employees in an organization. Although works councils do not show any significant effect in this study, research has shown that works councils directly enhance single components of the ERI, such as wage level and job security (Addison et al., 2010; Pfeifer, 2014, Pfeifer, 2011).

## 6.6 Conclusion

This research shows that the ERI is linked with organizational size. Additionally, the liability of the middle is observable in the transformation phase between informal structures and formal structures. Therefore, the imbalance is attributed to the lack of reward in medium-sized organizations. Most importantly, this research highlights that bigger does not necessarily mean better: organizations must overcome the peak ERI, utilize the benefits of the formalization process, and consequently lower the ERI.

# 7. Summary and Conclusion

## 7.1 Main Findings of the Research Questions

The research in this dissertation aimed to reveal answers regarding the contextual antecedents of entrepreneurship and entrepreneurial and employee well-being. An overview of the main findings and distinct answers to the introduced research questions are presented in this chapter. This will be the basis for an overall discussion and its implications.

Chapter 2 focuses on answering the following questions:

**RQ 1.1:** *Is a life partner more important for entrepreneurs than for the wage-employed in terms of individuals' life satisfaction?*
**RQ 1.2:** *Is a life partner less important for the life satisfaction of entrepreneurs with employees than for the life satisfaction of wage-employed individuals and solo-entrepreneurs?*

The results of the empirical analysis of a cross-sectional linear regression show that having a life partner increases the overall life satisfaction of both entrepreneurs and wage-employed individuals. The life partner appears to be a valuable resource for the entrepreneur. Regarding RQ 1.1, the empirical insights show that the effect of having a life partner on an individual's life satisfaction is not higher for self-employed individuals than for wage-employed individuals. In other words, the life partners' physical and emotional support does not have a higher effect on the life satisfaction of the self-employed. RQ 1.2 can be answered in the affirmative based on the results of the empirical analysis. The results show that the relevance of a life partner is higher for solo entrepreneurs than for self-employed individuals with salaried employees. This effect meets the assumption that, especially if entrepreneurship is a lonely journey, as it is for the solo self-employed, life partners appear to be more relevant for the life satisfaction of the entrepreneur.

Chapter 3 focuses on presenting new insights into the relevance of the entrepreneur's life partner and EWB based on the following research questions:

***RQ 2.1:*** *Does their life partner's occupation—self-employment vs. wage employment—affect individuals' well-being?*
***RQ 2.2:*** *Does their life partner's occupation affect different types of individuals' well-being?*

Building on the results of Chapter 2, showing that a life partner increases EWB, Chapter 3 considers a more precise characteristic of the life partner: their occupation. Chapter 3 found that self-employed life partners increase job satisfaction for wage- and self-employed individuals (focal individual) but decrease family satisfaction with the focal individual. On the assumption of interindividual cross-over effects (Altobelli and Moen, 2007; Moen and Yu, 2000), Chapter 3's results demonstrate that a higher level of job satisfaction, associated with and empirically validated for self-employment (e.g., Binder and Coad, 2016; van der Zwan et al., 2018), crosses over to the life partner. This effect can be seen in the opposite direction for family satisfaction. On the individual level, the results show that satisfaction with work and family has a compensating effect on overall life satisfaction. Entrepreneurial couples have higher overall life satisfaction than couples with mixed occupations (wage and self-employed). This is explained by the higher job satisfaction that comes with self-employment and the validated fact that self-employed individuals put more emphasis on their job, making job satisfaction a higher driver for overall life satisfaction (Loewe et al., 2015; Thompson et al., 1992). Thus, RQ 2.1. can be positively answered, as the study in Chapter 3 shows different well-being patterns for different life partner occupations. Moreover, the results of the study support the idea that their life partner's occupation affects different types of individuals' well-being. The results suggest that self-employed life partners increase the focal individual's job satisfaction but decrease their satisfaction with family life. These results give a clear and positive answer to RQ 2.2.

The relevant research question in Chapter 4 also revolves around the influence of the life partner's employment type. In comparison to Chapter 2 and Chapter 3, the dependent subject of investigation is not well-being but the propensity to enter entrepreneurship out of the hybrid status or the status of wage-employment. The research question from Chapter 4 is as follows:

***RQ 3:*** *Do life partners and their occupational choices differently affect the propensity to enter entrepreneurship directly or indirectly (via HE), and is this difference more pronounced for women?*

The results of the longitudinal panel analysis support the idea that a life partner per se has no influence on an individual's propensity to enter entrepreneurship directly (out of a wage-employed occupational position) or indirectly (out of HE). More explicitly, a self-employed life partner (compared to a wage-employed life partner) decreases the propensity to enter entrepreneurship directly out of wage-employment. These results contradict the findings of Caputo and Dolinsky (1998) and Özcan (2011) that indicate a positive influence from life partners in general on the propensity to enter entrepreneurship, and more detailed also support a positive effect of life partners' self-employment on an entrepreneurial propensity. More closely examining gender-related differences, Chapter 4's results indicate that women's propensity to enter full-time entrepreneurship indirectly out of hybrid status is positively related to having a self-employed life partner. Concerning a direct switch from wage employment, this study detected no gender-related effect. In line with RQ 3, the study suggests that life partners in general have no impact on an individual's propensity to enter entrepreneurship (indirectly or directly). Moreover, a self-employed life partner shows a negative influence on entrepreneurial activity in terms of a direct switch to entrepreneurship. Furthermore, the propensity of female hybrid entrepreneurs to enter full-time entrepreneurship is positively affected by a self-employed life partner.

As Chapter 4 suggests the effects of having a life partner on the propensity toward hybrid or full-time entrepreneurship, the main research question of Chapter 5 shifts the focus to different impacts of hybrid and full-time entrepreneurship on individuals' well-being:

***RQ 4:*** *Is individuals' well-being differently affected by an indirect way to entrepreneurship (via HE) and a direct entry to full-time entrepreneurship?*

The results of the empirical analysis are based on a replication and extension study of Ardianti et al.'s (2022) article with German panel data. The results of the replication support that switching to hybrid or full-time entrepreneurship impact an individual's well-being differently. Whereas a switch to full-time entrepreneurship is accompanied by an increase in job satisfaction, a switch to HE reduces job satisfaction and life satisfaction. Furthermore, the replication of Ardianti et al.'s (2022) study with German panel data shows that HE in Germany appears to be only a transit zone on the way to full-time entrepreneurship. Only a few individuals remain hybrid entrepreneurs for more than two consecutive years in the applied sample. Based on this descriptive observation, the examined job switches from the hybrid status are not meaningful, as the associated regression models do not show significance. Moreover, the results of cross-model coefficient comparisons display that a switch to full-time and HE has the most intense effect on job satisfaction (compared with life and leisure time satisfaction).

Chapter 6 shifts from the antecedents of EWB to contextual factors that impact the well-being of employees in organizations. Chapter 6 revolves around the impact of organizational size on the ERI of employees, which is reflected in the following research question:

***RQ 5:*** *Does organizational size affect the ERI of employees?*

The research results of Chapter 6 suggest that an organization's size impacts the ratio of perceived effort and reward for individuals. Organizational size is associated with and empirically validated to correspond with levels of formalization and standardization (Gallo &

Christensen, 2011; Sánchez-Marín et al., 2019). The results of a cross-sectional study reveal that employees in smaller and larger organizations face a better ratio of effort and reward than those in middle-sized companies. The middle-sized companies (100–200 employees) in this study display the highest imbalance of effort and reward. This imbalance in the category of 100–200 employees is driven by a linearly increasing level of effort with a low level of employee reward. These results show that an inverse U-shaped curve describes the relationship between company size and ERI.

***Table 7.1:*** *Overview of research questions and key findings*

| | Research question | Key findings |
|---|---|---|
| **Chapter 2** | **RQ 1.1:** *Is a life partner more important for entrepreneurs than for the wage-employed in terms of individuals' life satisfaction?*<br><br>**RQ 1.2.:** *Is a life partner less important for the life satisfaction of entrepreneurs with employees than for the life satisfaction of wage-employed and solo-entrepreneurs?* | • Life partners increase the well-being of wage-employed and self-employed individuals.<br>• Wage-employed and self-employed individuals show no difference in terms of their well-being with life partners.<br>• For solo self-employed individuals, life partners have a higher positive impact on well-being than for self-employed individuals with employees. |
| **Chapter 3** | ***RQ 2.1:*** *Does the life partner's occupation—self-employment vs. wage employment—affect individuals' well-being?*<br><br>***RQ 2.2:*** *Does the life partner's occupation affect different types of individuals' well-being?* | • Self-employed life partners increase satisfaction with work for wage-employed and self-employed individuals while decreasing their satisfaction with family life.<br>• Self-employed life partners, in comparison to wage-employed ones, increase the overall life satisfaction for their self-employed partners. |
| **Chapter 4** | ***RQ 3:*** *Do life partners and their occupational choices differently affect the propensity to enter entrepreneurship directly or indirectly (via HE), and is this difference more pronounced for women?* | • Life partners have no impact on the propensity to enter entrepreneurship directly or indirectly (out of HE).<br>• Self-employed life partners decrease an individual's propensity to enter entrepreneurship out of wage employment.<br>• A self-employed life partner positively impacts women's propensity to enter entrepreneurship out of the hybrid status. |
| **Chapter 5** | ***RQ 4:*** *Is individuals' well-being differently affected by an indirect way to entrepreneurship (via HE) and a direct entry to full-time entrepreneurship?* | • The switch to HE decreases job and life satisfaction, whereas the switch to full-time entrepreneurship results in a surplus of job-satisfaction.<br>• An individual's switch to hybrid and full-time entrepreneurship has the highest impact on job satisfaction (in comparison to life and leisure-time satisfaction). |
| **Chapter 6** | ***RQ 5:*** *Does organizational size affect the ERI of employees?* | • Individual's ERI has a reversed U-shaped curve with increasing organizational size.<br>• Middle-sized organizations display the highest imbalance of effort and reward. |

## 7.2 Theoretical Implications

One of the main implications that can be drawn from the studies in this dissertation that consider contextual antecedents of the well-being of entrepreneurs and employees is that context is an important antecedent. The context matters from different theoretical perspectives.

Firstly, the positive effect of life partners on EWB contributes to the FEP. Resources provided by the family are, in line with the FEP, one of the most important characteristics of the family system (Aldrich and Cliff, 2003). Social capital is one of these resources. Life partners provide social capital in the form of physical support, as they can contribute to the entrepreneur's business (Brüderl and Preisendörfer, 1998; Caputo and Dolinsky, 1998; Özcan, 2011; Werbel & Danes, 2010). Moreover, life partners provide emotional support (Brüderl and Preisendörfer, 1998; Davidsson and Honig, 2003). Previous research has demonstrated that for business success in terms of social capital theory can be further extended to EWB and the FEP. Studies like Davidsson and Honig (2003), Brüderl and Preisendörfer (1998), and Bosma et al. (2004) have shown that life partners' social capital increases business success and survival. Chapters 2 and 3 of this dissertation support the idea that, likewise, the well-being of an entrepreneur is positively affected by family resources in terms of social capital provided by their life partner. Self-employed life partners are a fruitful resource to the entrepreneur, offering self-employment competency and special human and social capital that can be exploited by the entrepreneur to increase their well-being.

Secondly, the results concerning the contextual antecedents of EWB from Chapter 3 have further implications for theoretical considerations that address compensation theory (Champoux, 1978; Staines, 1980; Evans and Bartolomé, 1984; Greenhaus and Powell, 2006) and crossover effects regarding research that treats the couple as a unit of interest (Altobelli and

Moen, 2007; Moen and Yu, 2000). Self-employed individuals compensate for lower satisfaction in family life with higher job satisfaction. This results in an overall satisfaction surplus. This finding contributes to compensation theory (Champoux, 1978; Staines, 1980) by showing that self-employed individuals are compensatory work oriented. In addition to the results of Chapter 2, the findings of Chapter 5 support the idea that entrepreneurship and HE are closely related to job satisfaction. Chapter 5's findings strongly indicate that job satisfaction is the well-being domain most affected by a switch to hybrid or full-time entrepreneurship. Moreover, Chapter 3 shows that self-employed life partners positively impact individuals' satisfaction with work, resulting in positive interindividual cross-over effects. This impacts theoretical considerations of interindividual cross-over effects for dual-earner couples by suggesting that the life partner's occupation induces special cross-over patterns within the couple.

In contrast to the positive effect of life partners, especially self-employed life partners, on EWB, Chapter 4's results support the idea that, in addition to present social capital considerations, risk-sharing considerations outweigh the decision to enter entrepreneurship. Regardless of the way an individual enters entrepreneurship (directly or via HE), the results of Chapter 4 do not indicate a higher entrepreneurial propensity induced by (self-employed) life partners. In the case of a direct switch to self-employment, however, a partner has a negative effect. The results suggest that individuals more strongly evaluate risk, income diversification, and risk pooling within a partnership when deciding for or against self-employment. Additionally, this effect appears to be more pronounced for the direct switch to entrepreneurship, which is associated with higher levels of risk (in comparison to an indirect switch via HE; Wennberg et al., 2006). In comparison to studies like Özcan (2011) or Caputo and Dolinsky (1998), Chapter 4's findings do not indicate that life partners, especially self-employed life partners, increase an individual's tendency to enter entrepreneurship. The studies of Özcan (2011) and Caputo and Dolinsky (1998) are based on data from the United States. Country-specific characteristics of

risk-taking behavior and income diversification of households might exist and create country-specific uncertainty avoidance patterns in line with the cultural dimensions of Hofstede (1994). For example, Germany displays a higher score in uncertainty avoidance than the United States of America (Hofstede, 1994: p. 5). In conclusion, Chapter 4's results support the idea that the effect of life partners—and more specifically, self-employed life partners—on an individual's tendency toward entrepreneurship might be treated with more focus on spatial context-specific characteristics regarding uncertainty avoidance (Welter, 2011).

Additionally, Chapter 5 contributes to the view of context-specific characteristics of entering entrepreneurship. The finding that HE in Germany appears to be a transitional space on the way to full-time entrepreneurship differs from Ardianti et al.'s (2022) study. Moreover, Chapter 5's findings contribute to the literature on role conflict and role allocation problems (e.g., Andersén, 2017; van Sell et al., 1981) by showing that HE negatively affects individuals' job and life satisfaction. This decrease in well-being might be explained by individuals' inability to allocate time to both jobs. Furthermore, as individuals in the hybrid status train their entrepreneurial orientation, this can have negative effects on their perception of their wage-employed position. A growing entrepreneurial orientation in the dependent position can cause internal cognitive and external conflicts at work, as for example, proactive effort meets resistance from colleagues and superiors (Pureta and Pureta, 2017).

Moreover, the results of Chapter 6 contribute to the literature on antecedents of employee well-being and especially the ERI Model of Siegrist (1996) by showing that the size of the organization impacts employees' level of ERI. In particular, the findings of Study 6 show that middle-sized organizations have the worst level of ERI, probably due to an implementation lag in their formalized and standardized human resources and management practices, also regarded as "liability of the middle" (Hannan and Freeman1977, p. 946). These findings confirm the assumptions of Hannan and Freeman (1977), who stated that the mortality rate of organizations has an inverted U-shaped course correlated with growing organizational size. Hannan and

Freeman (1977) attributed this phenomenon to the struggles of middle-sized organizations to overcome the transformation from a loosely organized and standardized organization to one with implemented formalization and standardization.

### 7.3 Practical Implications

The results of the studies included in this dissertation also have implications for practitioners. First and foremost, what can be put into practice is the awareness that life partners and their occupational choices play an important role in the life of an entrepreneur. On one hand, life partners, especially self-employed life partners, have positive impacts on well-being in terms of life and job satisfaction. On the other hand, self-employed life partners have negative impacts on satisfaction with family life and the propensity to enter self-employment directly from wage employment. Additionally, the negative impact of self-employed life partners on individuals' propensity to switch to full-time entrepreneurship from wage employment displays a self-employed life partner rather as a barrier to a direct switch to entrepreneurship.

From this, policymakers can derive a recommendation for action. Policymakers should foster the implementation of measures to achieve a better work-life balance for self-employed couples, like better insurance coverage for the upbringing of children and the care of relatives. Additionally, better protection in the event of insolvency for self-employed couples could become a means of reducing the inhibition threshold for households in which one partner is already self-employed. These political actions might also have positive impacts on entrepreneurial households' WFI. They might increase satisfaction with family life and the life satisfaction of entrepreneurs.

Likewise, the results of the studies in this dissertation should appeal to financial institutions. Financial suppliers should not regard the presence of an already self-employed life partner as an additional risk factor but should acknowledge that a self-employed life partner has beneficial impacts on the individual's well-being, prevents ill-being, and increases an individual's social and human capital. In sum, financial suppliers should evaluate an entrepreneurial life partner as

a valuable resource in their risk assessment when granting loans. As new business ventures lack information about their historical performance, the life partner might act as a positive signal to reduce information asymmetries between financial suppliers and the entrepreneur (Backes-Gellner and Werner, 2007). This might also positively impact individuals' propensity to enter entrepreneurship when their life partner is already self-employed, increasing new business ventures in an economy.

On the individual level, self-employed individuals should implement strategies or behaviors that make self-employment easier with family life. Self-employed individuals should strive for a better division of family life and professional activity to participate more consciously in life partnership and family life. This might result in a decrease in time-based conflicts within the household. Moreover, research has proven that a reciprocal "secure base" that fosters encouraging and supportive behavior from both parts of the couple prevents WFC and enhances the quality of the relationship of dual-career couples (Petriglieri and Obodaru, 2019). Regarding positive impacts on the entrepreneurs' stress-level and quality of sleep, family life might also benefit from a better and more aware detachment from work (Wach et al., 2021; Williamson et al., 2019).

The negative impacts of HE on an individual's job and life satisfaction also give an important occasion to increase the awareness of employers of hybrid employees in an organization. An entrepreneurial orientation that is trained and sharpened through HE should be perceived by employers as a positive resource to be deliberately used and exploited. This awareness could reduce emerging time- and authority-based conflicts between employers and hybrid entrepreneurs. Thus, the harmful effect of HE on job satisfaction could be mitigated for individuals. The final practical limitation of this dissertation also concerns employers and the management of organizations. The unfavorable ERI in middle-sized companies should impact the awareness of small and medium-sized enterprises (SME) regarding how a focus on transformation and growth changes the employees' level of effort and reward in the

organization. When an organization grows and its complexity increases, management should emphasize its impact on the ERI. The management or owner of an SME should start to implement higher levels of formalization and standardization to compensate for the loss of the previous closeness to the employee.

### 7.4 Limitations and Future Research Avenues

The validity of the studies included in this dissertation must be considered in light of the limitations discussed below.

First and foremost, the studies in this dissertation are based on data from the German Socio-Economic Panel (GSOEP). Even if the GSOEP is the most representative longitudinal dataset for household and individual levels in Germany (Schupp and Wagner, 2002; Wagner et al., 1993, 2007), the data may contain country-specific effects. In the case of the regional context of EWB, the formal and informal (cultural) institutional background an entrepreneur is exposed to can act as a barrier or success factor (Stephan et al., 2022). Research has proven EWB to be higher in countries with a strong "rule of law" (Stephan et al., 2022). Moreover, the country-specific level of uncertainty avoidance (cultural aspect) moderates the relationship between an individual's fear of failure and their decision to enter entrepreneurship (Wennberg et al., 2013). Future research should focus on country-specific effects of self-employed life partners and their impact on EWB and the propensity to enter entrepreneurship. This would form a clearer picture of the spatial impact on the relationship between self-employed life partners and EWB.

Special institutional characteristics in Germany might also affect the studies in this dissertation that address the propensity to enter entrepreneurship indirectly via the hybrid state and the well-being effects from switching to H. Starting a new business in Germany involves significant bureaucratic rules and expenses that are time- and knowledge-intensive (Deutscher Industrie- und Handelskammertag e.V. (DIHK), 2022). This might impact the possibility and individual propensity to start a new business when one has high time obligations in dependent

employment. Regarding the empirical analysis of Chapter 6, which is also based on data from the GSOEP, the country-specific impact on employee well-being is lower because the organizational context buffers this impact (Stephan et al., 2022).

Another limitation of this dissertation arises from the underlying datasets used in studies in Chapter 1 and Chapter 5. In both studies, the researchers based the empirical analysis on cross-sectional data. This leads to a lack of expressive content in terms of causality. Especially for the effect of organizational size on the ERI, it appears promising for further research to test this relationship with a longitudinal dataset. Thus, research can investigate whether an individual's switch from a small organization to a middle-sized or a larger organization impacts the employees' ERI.

Last, one further limitation results from the dependent variable used in studies 1, 2, and 4. The OECD recommends the measurement of overall life satisfaction as a measure of subjective well-being (Bhuiyan and Ivlevs, 2019; OECD, 2013), as life satisfaction is commonly used in research on well-being and EWB (Bhuiyan and Ivlevs, 2019; Diener et al. 2012; Helliwell and Barrington-Leigh, 2010; van der Zwan et al. 2018). Besides that, the use of this single item measurement is not without controversy, as it covers only a unidimensional aspect of subjective well-being, neglecting its affective dimension. Future research should embrace studies on contextual factors of EWB that cover its affective and eudaimonic dimensions. In general, future research should consider the impacts of exogenous shocks, like the recent COVID-19 pandemic, on EWB and the well-being of entrepreneurial couples. Entrepreneurial couples appear to be strongly affected by external shocks like the pandemic, with possible harmful effects on EWB.

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# Appendix

## Appendix to Chapter 3

***Table A.3.1:*** *Difference in difference with time dummies and weighting factor received from Entropy Balancing*

| | (1) Job-satisfaction b/se | (2) Family-satisfaction b/se | (3) Life-satisfaction b/se | (4) Job-satisfaction b/se | (5) Family-satisfaction b/se | (6) Life-satisfaction b/se | (7) Job-satisfaction b/se | (8) Family-satisfaction b/se | (9) Life-satisfaction b/se | (10) Job-satisfaction b/se | (11) Family-satisfaction b/se | (12) Life-satisfaction b/se |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Migration background | .780*** | .369 | .455** | .164* | .085 | .137** | .026 | .135 | -.001 | .021 | .141 | .004 |
| | (.141) | (.273) | (.194) | (.098) | (.118) | (.068) | (.301) | (.219) | (.225) | (.300) | (.221) | (.225) |
| Experience | -.044*** | .006 | .002 | -.041*** | .009*** | -.002 | -.023*** | .003 | .005 | -.024*** | .004 | .005 |
| | (.006) | (.005) | (.003) | (.002) | (.002) | (.001) | (.005) | (.005) | (.003) | (.005) | (.005) | (.003) |
| Working hours | .007** | -.037*** | -.002 | .003** | -.036*** | .000 | .006** | -.035*** | .002 | .006** | -.035*** | .002 |
| | (.003) | (.003) | (.002) | (.001) | (.001) | (.001) | (.002) | (.003) | (.002) | (.002) | (.003) | (.002) |
| Education | .028 | .002 | -.141 | .028 | -.148 | .111 | -.435* | -.265 | .217 | -.426 | -.275 | .214 |
| | (.265) | (.318) | (.253) | (.119) | (.131) | (.089) | (.262) | (.392) | (.226) | (.262) | (.393) | (.226) |
| Education # Education | -.004 | -.002 | .004 | -.003 | .006 | -.005 | .014 | .013 | -.010 | .014 | .013 | -.010 |
| | (.009) | (.011) | (.009) | (.004) | (.005) | (.003) | (.009) | (.016) | (.008) | (.009) | (.016) | (.008) |
| Health | .438*** | .287*** | .419*** | .450*** | .255*** | .446*** | .397*** | .244*** | .446*** | .396*** | .244*** | .446*** |
| | (.031) | (.030) | (.023) | (.012) | (.012) | (.009) | (.026) | (.026) | (.020) | (.026) | (.026) | (.020) |
| Household income (ln) | .205*** | .031 | .296*** | .207*** | -.005 | .245*** | .167*** | -.013 | .222*** | .165** | -.008 | .225*** |
| | (.077) | (.084) | (.058) | (.034) | (.038) | (.024) | (.064) | (.082) | (.048) | (.064) | (.082) | (.048) |
| Children | -.004 | -.148*** | -.020 | .008 | -.173*** | -.015* | -.016 | -.214*** | -.037* | -.015 | -.215*** | -.038* |
| | (.031) | (.034) | (.021) | (.013) | (.014) | (.009) | (.027) | (.037) | (.019) | (.027) | (.037) | (.019) |
| Working hours life-partner | .001 | .001 | .003*** | -.000 | .000 | .002*** | -.001 | -.003** | .000 | -.001 | -.003** | .000 |
| | (.001) | (.001) | (.001) | (.001) | (.001) | (.000) | (.001) | (.001) | (.001) | (.001) | (.001) | (.001) |
| **Transition of life-partner:** unemployed to self-employed | -.001 | -.122 | -.104* | | | | | | | | | |
| | (.074) | (.085) | (.055) | | | | | | | | | |
| **Transition of life-partner:** unemployed to wage employed | | | | .055** | -.060** | -.022 | | | | | | |
| | | | | (.022) | (.025) | (.016) | | | | | | |
| **Transition of life-partner:** Self-employment to wage employment | | | | | | | .075 | -.099 | -.062 | | | |
| | | | | | | | (.057) | (.064) | (.043) | | | |
| **Transition of life-partner:** Wage employment to self-employment | | | | | | | | | | -.048 | -.009 | -.034 |
| | | | | | | | | | | (.079) | (.076) | (.057) |
| Constant | 3.436* | 6.457*** | 3.692** | 3.887*** | 7.846*** | 2.450*** | 7.344*** | 8.095*** | 2.234 | 7.300*** | 8.125*** | 2.218 |
| | (2.075) | (2.341) | (1.847) | (.880) | (.965) | (.658) | (1.979) | (2.656) | (1.670) | (1.979) | (2.660) | (1.669) |
| Observations | 160.166 | 152.255 | 162.788 | 160.166 | 152.255 | 162.788 | 160.166 | 152.255 | 162.788 | 160.166 | 152.255 | 162.788 |
| $R^2$ | .061 | .054 | .074 | .054 | .043 | .075 | .044 | .059 | .074 | .044 | .059 | .074 |

*Includes dummies for industry, company size, years, clustered standard errors in parentheses (individual)

***Table A.3.8:*** *Longitudinal linear regressions (xtreg) with random effects and time-wised fixed effects (years) and clustered standard errors*

| Independent variables | (1) Life-satisfaction | (2) Life-satisfaction |
|---|---|---|
| | Wage-employed | Self-employed |
| Job-satisfaction | .181*** | .292*** |
| | (.003) | (.010) |
| Family-satisfaction | .132*** | .102*** |
| | (.003) | (.007) |
| Constant | .786** | .574 |
| | (.306) | (.734) |
| Observations | 111,901 | 10,907 |
| $R^2$ | .352 | .417 |

*Note: Robust standard errors reported in parentheses *p < 0.1, **p < 0.05, ***p < 0.01. Only variables of interest listed.

## Appendix to Chapter 5

***Table A.5.1:*** *Switching from full-time paid employment to hybrid status (Descriptive statistics before and after matching)*

| Variable | *Before matching* | | | | *After matching* | | | |
|---|---|---|---|---|---|---|---|---|
| | Treated | | Control | | Treated | | Control | |
| | Mean | Variance | Mean | Variance | Mean | Variance | Mean | Variance |
| Life satisfaction | 7.331 | 1.201 | 7.444 | 1.348 | 7.331 | 1.201 | 7.331 | 1.471 |
| Job satisfaction | 7.383 | 1.494 | 7.187 | 1.897 | 7.383 | 1.494 | 7.382 | 1.673 |
| Leisure time satisfaction | 6.206 | 2.577 | 6.709 | 2.574 | 6.206 | 2.577 | 6.207 | 3.015 |
| Age | 50.06 | 109.5 | 46.49 | 130.4 | 50.06 | 109.5 | 50.05 | 109.3 |
| Age2 | 2615 | 1130999 | 2292 | 1119847 | 2615 | 1130999 | 2614 | 1063721 |
| Gender | .7097 | .2068 | .505 | .25 | .7097 | .2068 | .7093 | .2062 |
| Married | .4731 | .2502 | .5463 | .2479 | .4731 | .2502 | .4731 | .2493 |
| Education | 14.11 | 9.912 | 12.72 | 7.602 | 14.11 | 9.912 | 14.1 | 9.428 |
| Organization type | .2294 | .1774 | .2565 | .1907 | .2294 | .1774 | .2294 | .1768 |
| Income gap | .04646 | .04538 | .09012 | .1113 | .04646 | .04538 | .04658 | .07815 |
| Agreeableness | 4.802 | .5056 | 4.787 | .523 | 4.802 | .5056 | 4.802 | .5129 |
| Conscientiousness | 4.858 | .3765 | 4.853 | .3647 | 4.858 | .3765 | 4.858 | .3509 |
| Extraversion | 4.928 | .6543 | 4.909 | .5773 | 4.928 | .6543 | 4.928 | .5855 |
| Openness | 4.928 | 1.335 | 4.592 | 1.347 | 4.928 | 1.335 | 4.927 | 1.252 |
| Neuroticism | 4.153 | .6808 | 4.19 | .7276 | 4.153 | .6808 | 4.153 | .6978 |

*Note: As shown in the matching columns, those individuals who switched to hybrid entrepreneurship (treated) display higher levels of age and lower satisfaction with leisure-time and a higher ratio of male individuals. Concerning the personality traits, individuals of the treatment group show higher openness scores.*

***Table A.5.2:*** *Switching from full-time paid employment to self-employment (Descriptive statistics before and after matching)*

| Variable | *Before matching* | | | | *After matching* | | | |
|---|---|---|---|---|---|---|---|---|
| | Treated | | Control | | Treated | | Control | |
| | Mean | Variance | Mean | Variance | Mean | Variance | Mean | Variance |
| Life satisfaction | 7.255 | 1.299 | 7.447 | 1.349 | 7.255 | 1.299 | 7.255 | 1.554 |
| Job satisfaction | 7.154 | 1.51 | 7.189 | 1.905 | 7.154 | 1.51 | 7.154 | 1.933 |
| Leisure time satisfaction | 6.243 | 2.626 | 6.715 | 2.57 | 6.243 | 2.626 | 6.243 | 2.999 |
| Age | 48.99 | 133.2 | 46.48 | 130.2 | 48.99 | 133.2 | 48.99 | 133 |
| Age2 | 2533 | 1348869 | 2290 | 1116341 | 2533 | 1348869 | 2533 | 1244780 |
| Gender | .5598 | .2468 | .5062 | .25 | .5598 | .2468 | .5598 | .2464 |
| Married | .4983 | .2504 | .547 | .2478 | .4983 | .2504 | .4983 | .25 |
| Education | 13.35 | 8.357 | 12.72 | 7.626 | 13.35 | 8.357 | 13.35 | 8.762 |
| Organization type | .186 | .1517 | .2579 | .1914 | .186 | .1517 | .1861 | .1515 |
| Income gap | .07596 | .1489 | .08977 | .1104 | .07596 | .1489 | .07597 | .09675 |
| Agreeableness | 4.8 | .5402 | 4.787 | .5221 | 4.8 | .5402 | 4.8 | .5198 |
| Conscientiousness | 4.834 | .3318 | 4.853 | .3652 | 4.834 | .3318 | 4.834 | .3605 |
| Extraversion | 4.935 | .593 | 4.909 | .5774 | 4.935 | .593 | 4.935 | .5848 |
| Openness | 4.943 | 1.338 | 4.59 | 1.345 | 4.943 | 1.338 | 4.943 | 1.268 |
| Neuroticism | 4.218 | .6966 | 4.189 | .7281 | 4.218 | .6966 | 4.218 | .7181 |

*Note: As shown in the matching columns, those individuals who switched to full-time entrepreneurship (treated) display a higher age and lower life satisfaction and leisure-time satisfaction. Moreover, the ratio of public service employees is lower for the treatment group. Concerning the personality traits, individuals of the treatment group show higher openness scores.*

***Table A.5.3:*** *Switching from hybrid status to full-time entrepreneurship (Descriptive statistics before and after matching)*

| Variable | *Before matching* | | | | *After matching* | | | |
|---|---|---|---|---|---|---|---|---|
| | Treated | | Control | | Treated | | Control | |
| | Mean | Variance | Mean | Variance | Mean | Variance | Mean | Variance |
| Life satisfaction | 7.161 | 1.317 | 7.587 | 1.147 | 7.161 | 1.317 | 7.161 | 1.935 |
| Job satisfaction | 7.195 | 1.563 | 7.722 | 1.641 | 7.195 | 1.563 | 7.195 | 2.86 |
| Leisure time satisfaction | 5.854 | 3.059 | 6.358 | 2.769 | 5.854 | 3.059 | 5.854 | 3.531 |
| Age | 48.31 | 122.8 | 51.14 | 123.2 | 48.31 | 122.8 | 48.31 | 125.5 |
| Age2 | 2456 | 1200858 | 2736 | 1211125 | 2456 | 1200858 | 2456 | 1157032 |
| Gender | .7033 | .2091 | .7143 | .2091 | .7033 | .2091 | .7033 | .2138 |
| Married | .4989 | .2505 | .6667 | .2276 | .4989 | .2505 | .4989 | .2561 |
| Education | 13.74 | 9.525 | 15.01 | 9.445 | 13.74 | 9.525 | 13.74 | 9.924 |
| Income gap | .09533 | .1206 | .1072 | .02853 | .09533 | .1206 | .09533 | .01958 |
| Hybrid intensity | .1503 | .07168 | .09403 | .01101 | .1503 | .07168 | .1503 | .01758 |

*Note: As shown in the matching columns, those individuals who switched to full-time entrepreneurship out of hybrid entrepreneurship (treated) are younger and display a lower life, job, and leisure-time satisfaction. Moreover, the treatment group displays less years invested in education and a higher hybrid intensity (higher ratio of income out of self-employment vs. paid -employed income). Also, the proportion of married individuals is lower in the treatment group.*

***Table A.5.4:*** *Switching from hybrid status to full-time paid employment (Descriptive statistics before and after matching)*

| Variable | *Before matching* | | | | *After matching* | | | |
|---|---|---|---|---|---|---|---|---|
| | Treated | | Control | | Treated | | Control | |
| | Mean | Variance | Mean | Variance | Mean | Variance | Mean | Variance |
| Life satisfaction | 7.259 | 1.223 | 7.26 | 1.302 | 7.259 | 1.223 | 7.258 | 1.114 |
| Leisure time satisfaction | 6.343 | 2.475 | 6.156 | 2.379 | 6.343 | 2.475 | 6.343 | 2.358 |
| Age | 49.16 | 118.6 | 54.75 | 94.51 | 49.16 | 118.6 | 49.18 | 124.1 |
| Age2 | 2535 | 1132978 | 3087 | 988860 | 2535 | 1132978 | 2537 | 1175233 |
| Gender | .756 | .1856 | .7 | .2211 | .756 | .1856 | .7558 | .1943 |
| Married | .5119 | .2514 | .55 | .2605 | .5119 | .2514 | .5117 | .263 |
| Education | 14.71 | 8.863 | 15.45 | 8.734 | 14.71 | 8.863 | 14.71 | 8.468 |
| Income gap | .1297 | .07366 | .08829 | .03959 | .1297 | .07366 | .1297 | .05381 |
| Hybrid intensity | .05425 | .009375 | .056 | .002497 | .05425 | .009375 | .05427 | .002182 |
| Conscientiousness | 4.792 | .5172 | 4.867 | .4491 | 4.792 | .5172 | 4.791 | .2397 |
| Extraversion | 4.859 | .5888 | 4.867 | .7766 | 4.859 | .5888 | 4.858 | .7127 |
| Openness | 4.737 | 1.201 | 4.7 | 1.168 | 4.737 | 1.201 | 4.737 | 1.04 |
| Neuroticism | 4.157 | .6227 | 4.2 | .2386 | 4.157 | .6227 | 4.157 | .2213 |

*Note: As shown in the matching columns, those individuals who switched to full-time paid employment out of hybrid entrepreneurship (treated) are younger. Moreover, the treatment group displays less years invested in education and a higher income gap.*

***Table A.5.5:*** *Switching from single jobholder to dual jobholder (Descriptive statistics before and after matching)*

| Variable | *Before matching* | | | | *After matching* | | | |
|---|---|---|---|---|---|---|---|---|
| | Treated | | Control | | Treated | | Control | |
| | Mean | Variance | Mean | Variance | Mean | Variance | Mean | Variance |
| Life satisfaction | 7.348 | 1.345 | 7.462 | 1.365 | 7.348 | 1.345 | 7.348 | 1.482 |
| Job satisfaction | 7.169 | 1.723 | 7.212 | 1.947 | 7.169 | 1.723 | 7.169 | 1.982 |
| Leisure time satisfaction | 6.666 | 2.426 | 6.681 | 2.727 | 6.666 | 2.426 | 6.666 | 2.748 |
| Age | 48.86 | 127.6 | 46.48 | 133.8 | 48.86 | 127.6 | 48.86 | 127.6 |
| Age2 | 2515 | 1241169 | 2294 | 1156339 | 2515 | 1241169 | 2515 | 1174060 |
| Gender | .4496 | .2475 | .5266 | .2493 | .4496 | .2475 | .4496 | .2475 |
| Married | .5234 | .2495 | .5577 | .2467 | .5234 | .2495 | .5234 | .2495 |
| Education | 12.96 | 8.254 | 12.79 | 7.74 | 12.96 | 8.254 | 12.96 | 7.927 |
| Organization type | .2807 | .202 | .2391 | .1819 | .2807 | .202 | .2807 | .2019 |
| Income gap | -.03263 | .1936 | .1024 | .1048 | -.03263 | .1936 | -.03262 | .2461 |
| Agreeableness | 4.802 | .5234 | 4.784 | .5237 | 4.802 | .5234 | 4.802 | .53 |
| Conscientiousness | 4.831 | .3783 | 4.854 | .3611 | 4.831 | .3783 | 4.831 | .3613 |
| Extraversion | 4.914 | .5544 | 4.909 | .582 | 4.914 | .5544 | 4.914 | .588 |
| Openness | 4.658 | 1.372 | 4.618 | 1.352 | 4.658 | 1.372 | 4.658 | 1.379 |
| Neuroticism | 4.219 | .7299 | 4.181 | .7287 | 4.219 | .7299 | 4.219 | .7238 |

*Note: As shown in the matching columns, those individuals who switched to dual job holding (treated) are younger and display a higher proportion of female individuals. Moreover, the treatment group displays a lower and negative income gap.*

***Table A.5.6:*** *Switching from dual jobholder to single jobholder (Descriptive statistics before and after matching)*

| Variable | *Before matching* | | | | *After matching* | | | |
|---|---|---|---|---|---|---|---|---|
| | Treated | | Control | | Treated | | Control | |
| | Mean | Variance | Mean | Variance | Mean | Variance | Mean | Variance |
| Job satisfaction | 7.159 | 2.004 | 7.26 | 2.973 | 7.159 | 2.004 | 7.159 | 2.448 |
| Leisure time satisfaction | 6.68 | 2.771 | 6.186 | 2.863 | 6.68 | 2.771 | 6.68 | 2.903 |
| Gender | .4384 | .2462 | .7308 | .2046 | .4384 | .2462 | .4385 | .2561 |
| Married | .5178 | .2497 | .5769 | .2538 | .5178 | .2497 | .518 | .2597 |
| Organization type | .2608 | .1928 | .1923 | .1615 | .2608 | .1928 | .2607 | .2005 |

*Note: As shown in the matching columns, those individuals who switched back to single job holding (treated) display higher leisure-time satisfaction and a higher proportion of female individuals. Moreover, the treatment group displays a higher proportion of civil servant employees.*

### *Results of Ardianti et al. (2022)*

***Table A.5.7:*** *Switching from full-time paid employment to hybrid entrepreneurship*

| | (1)<br>Job satisfaction<br>b/se | (2)<br>Life satisfaction<br>b/se |
|---|---|---|
| *Switching from full-time paid employment to hybrid entrepreneurship* | -.094<br>(.065) | -.060<br>(.067) |
| $R^2$ | .000 | .000 |

*Includes dummies for survey years, standard errors in parentheses.

***Table A.5.8:*** *Switching from paid employment to full-time self-employment*

| | (16)<br>Job satisfaction<br>b/se | (17)<br>Life satisfaction<br>b/se |
|---|---|---|
| *Switching from paid employment to full-time self-employment* | .728***<br>(.105) | .065<br>(.089) |
| Observations | | |
| $R^2$ | .042 | .000 |

*Includes dummies for survey years, standard errors in parentheses.

***Table A.5.9:*** *Switching from hybrid entrepreneurship to full-time self-employment*

| | (7)<br>Job satisfaction<br>b/se | (8)<br>Life satisfaction<br>b/se |
|---|---|---|
| *Switching from hybrid entrepreneurship to full-time self-employment* | .996***<br>(.225) | .403*<br>(.231) |
| $R^2$ | .084 | .017 |

*Includes dummies for survey years, standard errors in parentheses.

***Table A.5.10:*** *Switching from hybrid entrepreneurship to full-time paid employment*

| | (4)<br>Job satisfaction<br>b/se | (5)<br>Life satisfaction<br>b/se |
|---|---|---|
| *Switching from hybrid entrepreneurship to full-time paid employment* | -.001<br>(.107) | -.043<br>(.122) |
| $R^2$ | .000 | .000 |

*Includes dummies for survey years, standard errors in parentheses.

***Table A.5.11:*** *Switching from full-time paid employment to dual job holding*

| | (10)<br>Job satisfaction<br>b/se | (11)<br>Life satisfaction<br>b/se |
|---|---|---|
| *Switching from full-time paid employment to dual job holding* | -.059<br>(.063) | -.091<br>(.065) |
| $R^2$ | .000 | .000 |

*Includes dummies for survey years, standard errors in parentheses.

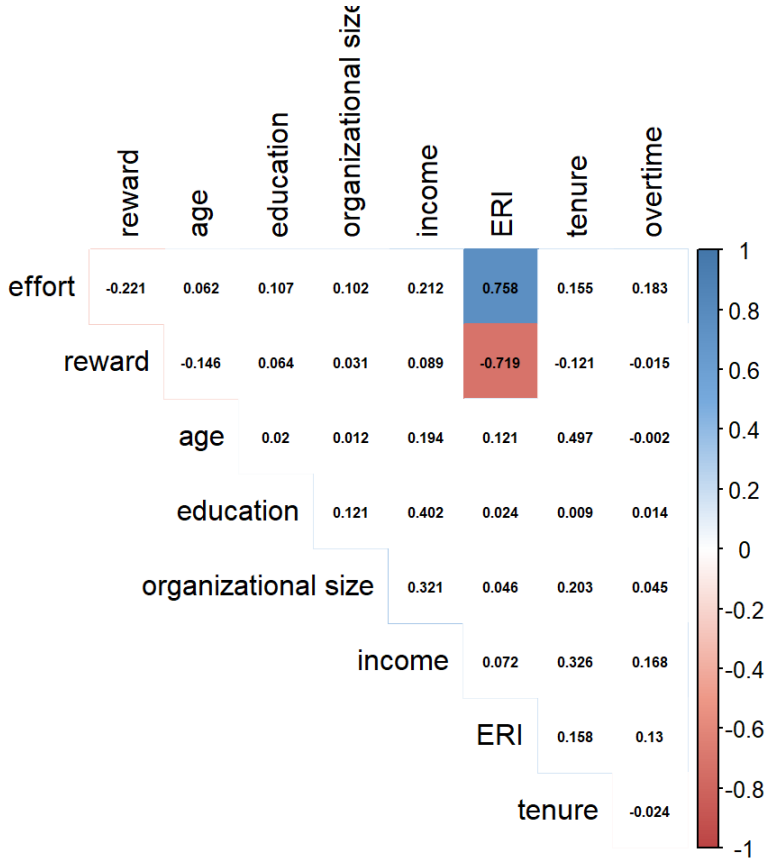
***Table A.5.12:*** *Switching from dual job holding to full-time paid employment*

| | (13)<br>Job satisfaction<br>b/se | (14)<br>Life satisfaction<br>b/se |
|---|---|---|
| *Switching from dual job holding to full-time paid employment* | .080<br>(.075) | -.028<br>(.076) |
| $R^2$ | .000 | .000 |

*Includes dummies for survey years, standard errors in parentheses.

## Appendix to Chapter 6

***Figure A.6:*** *Correlation matrix of numerical variables*




Significant correlations ($p \leq 0.01$) are colored.