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

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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.

JEL Codes: L26, D81, J16

Keywords: Hybrid Entrepreneurship, Social Capital, Life Partner, Occupation, Gender-Related Differences

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 dis-

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positions of the entrepreneur, thereby emphasizing the role of internal mechanisms (Özcan 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, Folta, and Delmar 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, Westhead, Matlay, and Parsyak 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.

2. Literature Overview and Hypotheses Development

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, Mackiewicz, Doryń, and Wawrzyniak 2020), dynamics (e. g., Wennberg *et al*. 2006; Schulz, Urbig, and Procher 2016), and outcomes (e. g., Fini, Perkmann, and Ross 2017; Marshall, Davis, Dibrell, and Ammeter 2018). 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, 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, Varamäki, and Joensuu-Salo 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, Thurik, and Bosma 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.* (*ibid.*), 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 article focuses on the second step of the two-stage process – the decision to transition from hybrid entrepreneurship to full-time entrepreneurship.

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, Grade, and Vipond 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 (Davidson 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, Farrel, and Sessions 2006; Ermisch, Francesconi, and Siedler 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 Sitkin and Weingart, risk propensity is "an individual's current tendency to take or avoid risks" (1995, 1575). 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, Reese, and Dubini 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.

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, Pouliakas, and Zangelidis 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, Landgraf, and Semrau 2019) – 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; Hörisch, Kollat, and Brieger 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 have also 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; Jiankoplos and Bernasek 1998; Caliendo, Fossen, and Kritikos 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 indicates that different "social structures in work, family and social life" (1998, 160) 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. Based on empirical results of gender-related differences in decision-making behaviour, social capital provided by having a life partner who is furthermore also self-employed might be more important for the more risk averse women (in comparison to men) 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.

3. Methodology

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.

3.2 Variables

Table 1 describes the dependent, independent, and control variables.

Table 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

3.2.1 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 (Müller and Arum 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 (cf. Petrova 2005, 2010a, 2010b, and 2012) or the proportion of income generated from the entrepreneurial activity (cf. 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 0 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.* Figure 1 provides an overview of the underlying items and depicts how we constructed the transition variables.

3.2.2 Independent Variables

Our independent variables are the existence of a cohabiting life partner and the life partner's occupational position. Both of 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

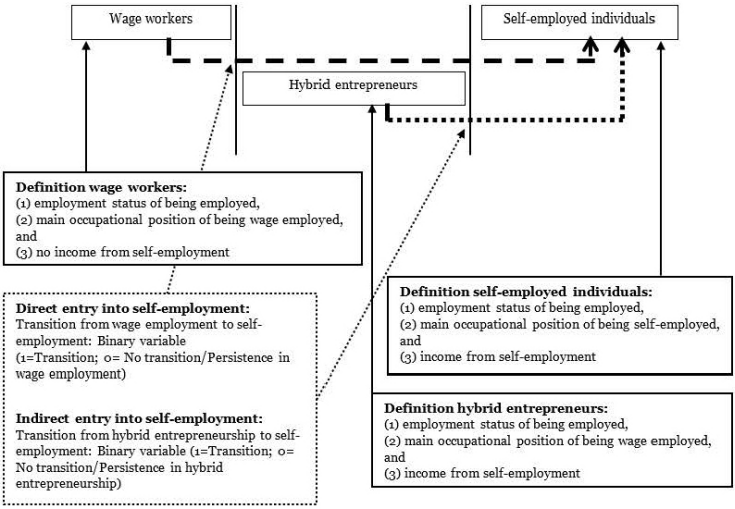

Figure 1: Operationalization of the Variable.

the participation of women in the labour force (Stevenson and Wolfers 2007), and demographic shifts regarding the average age at time of marriage (Teachman, Tedrow, and Kim 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 when it comes to 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.

3.2.3 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, Oswald, and Stutzer 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, Aldrich, and Keister 2006; Van Der Sluis, Van Praag, and Vijverberg 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, Crespo, and Moreira 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, Folta, and Johnson 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 unrealistic 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, Scott, and Roper 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, Picot, and Compton 2000; Lombard 2001; Brown *et al*. 2006; Wellington 2006).

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 (or are not) measured. 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 (*ibid.*). 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 multi-collinearity concerns (Hill and Adkins 2001).

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 2 reports the descriptive statistics for the direct entrants. Table 3 reports the descriptive statistics for the indirect entrants.

Table 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 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 shows the correlation matrix for the direct entrants. Table 5 reports the correlation matrix for the indirect entrants.

Table 6 shows the overall results of the logistic regression models for the direct and indirect transition to self-employment without any differentiation by gender.

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 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 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.

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Table 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).

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 Model 2 and 4 do not reflect these assumptions. Thus, we also must reject Hypothesis 1b.

4.1 Results for Gender-Related Effects of the Role of Social Capital

Table 7 and 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.

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-em-

Table 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 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).

ployed 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 9 summarises our accepted and rejected hypotheses.

Table 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."	–/X
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: X: Fully supported; –/X: Partly supported; –: Not supported.

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 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, Sutton, and Borenstein 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, Van Witteloostuijn, and Beugelsdijk 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, Urbig, and Procher (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 (2011), which covers networks, households, and families. 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., an Ltd. or a GmbH, who essentially 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 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.

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