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# Determinants of and obstacles to dual careers in Germany 

Determinanten und Hindernisse für Doppelkarrieren in Deutschland


#### Abstract

Education expansion has led to an increasing proportion of couples in which both partners hold an academic degree. Although in these couples the potential for dual careers is high, their realization remains a great challenge, mostly due to restrictions on female careers. We argue that the chances of achieving dual careers depend not only on individual characteristics of each partner, but also on the constellation within couples with regard to age, profession, and child-rearing. We therefore look first at different characteristics within German academic couples and analyze how these enhance or constrain the chances of achieving dual careers. Then, we examine recruitment practices at German universities, especially their sensitivity regarding dual-career issues. Our results show that child rearing contributes to the risk of couples having a one-career coordination strategy and that gender-blind recruitment criteria contribute to a large extent to this risk. We further test two common explanations of the hindrance of dual careers and show that neither are women generally disadvantaged, nor does the age difference in couples gender-neutrally define the older partner's career as the leading one.


## Zusammenfassung:

Die Bildungsexpansion hat dazu beigetragen, dass bei einem zunehmenden Anteil der Paare beide Partner über einen akademischen Abschluss verfügen. Obgleich diese Partnerschaften ein hohes Potential für Doppelkarrieren besitzen, so bleibt dessen Realisierung eine große Herausforderung - oft aufgrund von Einschränkungen weiblicher Karrieren. Wir zeigen, dass nicht nur individuelle Merkmale der beiden Partner die Realisierungschancen von Doppelkarrieren beeinflussen, sondern auch Konstellationen innerhalb der Partnerschaft im Bezug auf Alter, Beruf und Kinder. Mit Blick auf Akademikerpaare untersuchen wir zunächst, wie unterschiedliche Paarkonstellationen die Realisierungschancen von Doppelkarrieren fördern oder behindern. In einem weiteren Schritt untersuchen wir Einstellungspraktiken an deutschen Hochschulen und deren Sensibilität gegenüber Doppelkarrieren. Unsere Ergebnisse zeigen, dass Kinder das Risiko bei Paaren erhöhen, nur eine Karriere zu verfolgen, und dass geschlechtsblinde Einstellungskriterien zu diesem Risiko beitragen. Zudem werden wir die zwei herkömmlichen Erklärungen zur Behinderung von Doppelkarrieren überprüfen und dabei zeigen, dass weder Frauen generell benachteiligt sind, noch dass ein Altersunterschied der Partner den Karrierevorrang des älteren Partners geschlechtsneutral definiert.

Key words: dual careers, academic couples, Germany, family relationships, university, employment, careers

Schlagworte: Doppelkarrieren, Akademikerpaare, Deutschland, familiäre Beziehungen, Universität, Hochschulen, Beruf, Karriere

## 1. Introduction

For a long time, the gender gap in career chances connected with a hierarchical onecareer pattern in couples was explained by differences in educational degrees attained by men and women. Yet, in many Western countries educational expansion has resulted in an enormous reduction of educational gender differences. In 2004 about 19.5 percent of German men and 14.5 percent of women - aged 30 to 49 held an academic degree. ${ }^{1}$ And not only did the number of highly qualified individuals - and especially women - increase; there was also considerable growth in the number of couples in which both partners hold an academic degree (in the following: "academic couples"). In Germany today, one third of the men holding a university degree live with an academically-trained woman, and almost half of the female academics live together with a male academic (cf. Table 1). Dual-career couples - couples in which both partners pursue a professional career - are nonetheless quite seldom in Germany.

In academic couples, both partners have made substantial training investments and often show a pronounced interest in professional careers - leading to a high potential for entwining individual professional careers into dual careers. Yet dual careers still remain a great challenge: often dual-career efforts fail, most frequently because of restrictions on female professional careers. Among the academic women aged between 30 to 49 years, about 38 percent were unable to translate their academic degree into a (full-time or part-time) professional job in 2004. These women were either not employed or (only) working in non-professional jobs. Among the academic men only 22 percent could not do so. That the interest in professional careers by male and female academics is increasing, however, is indicated by the large and, for men, rising proportion of academics not living with a partner. In the careerintensive period between ages 30 to 50 , every third academically trained man and woman is not "committed" to living together with a partner (see Table 1). Between 1971 to 2004, for men this figure increased from only 11 percent to 27 percent, indicating the decreasing chances of men to find "traditional" women for a partnership and/or their increasing interest to first establish their career before entering a (dualcareer) family.

[^0]Table 1: Qualification levels of partners of academically trained men and women in 1971, 1997, 2004 (in rounded percentages)

|  | Partner holding an academic <br> degree ("academic couples") | Partner without an <br> academic degree | No partner* |
| :--- | :---: | :---: | :---: |
|  |  | $\mathbf{1 9 7 1 ^ { * * }}$ |  |
| Men | 15 | 72 | 11 |
| Women | 50 | 13 | 33 |
|  |  | $\frac{1997}{47}$ |  |
| Men | 27 | 20 | 25 |
| Women | 46 | $\underline{2004}$ | 34 |
|  |  | 39 | 27 |
| Men | 33 | 23 | 30 |

Case selection: German academics aged between 30 and 49 years.
Difference to 100 percent $=$ missing information on partner's qualification.
Due to data restriction:

* this category includes women and men - aged between 30 and 49 years - without partners and in living-apart-together-arrangements.
** this year only includes married couples.
Source: Own calculations, German Micro-census 1971, 1997, 2004, weighted by individual projection factor.

Although the number of academic couples increased from 1.1 percent of all couples in 1971 to about 9 percent in 2004, the one-career-pattern is still common in Germany. Even in academic couples, often only the male partner pursues a professional career. In 2004 in about every third academic couple, the woman was either not employed or did not pursue a professional job, despite her academic degree (cf. section $3)$. ${ }^{2}$

The goal of this article is to reveal alternative explanations for this gendered career gap that go beyond the educational-career resource argument. Therefore, we study career chances of academic couples, i.e., we keep the (initial) educational resources between the two partners equal. This allows us to explore further determinants and obstacles for dual careers of German academic couples. In the following, we theoretically outline and empirically show that dual-career chances depend not only on individual characteristics of each partner, but also on the constellation within couples with regard to age, profession, and child-rearing (sections 2 and 3 ). We then continue with a case study of employers' perspective on dual careers and a description of obstacles and constraints to dual careers caused by recruitment practices of German higher education institutions (section 4). In the concluding section, we summarize the main constraints and determinants of dual careers among academic couples.

[^1]
## 2. Determinants of dual careers - Theoretical considerations on the presence of children, couples' age difference and professional constellation

A large body of literature - especially on gender differences in career opportunities - focuses on how individual features (such as age, gender, educational level, professional field and experience) influence employment and career chances (e.g. Geenen 1993; Lauterbach 1994; Stroh \& Reilly 1999; Allmendinger, Fuchs \& Stebut 2000; Blossfeld \& Drobnič 2001; Born \& Krüger 2001; Baecker 2003). However, scholars have paid far less attention to the couple as unit of analysis and thus underestimated the importance of the constellation of the partners' individual characteristics within the couple. In this article, we therefore favor such a relational approach in which not only the individual age and professional field of the two partners as career determinants are taken into account, but the age and professional constellation of the two partners as well. In addition, we investigate the effect of children in order to reveal whether childlessness is a "dual-career strategy" to reduce family duties for both partners. Before presenting our empirical findings (in section 3), we will outline how the age difference between partners and couples' professional heterogeneity or homogeneity may influence dual-career opportunities.

In the literature, the age difference between partners is often seen as a genderneutral determinant of the career chances of the two partners. This explanation appears to be straightforward on first glance: careers and career steps take time, and if the age of the two partners is unequal, unequal time periods have been available for each of their respective careers. Given the age difference between the partners and the resulting differences in career time, the older partner typically has already proceeded further in his/her career. According to the New Household Economics, it is therefore in the household's common interest for the older partner to have the "primary" career during a significant proportion of the life course (e.g. Hawkes, Nicola \& Fish 1980; Kalter 1998; Becker \& Moen 1999). A similar argument is made by resource-exchange theories, here the older partner has already accumulated more resources to assert his/her interests (e.g., Blood \& Wolfe 1960). Since typically women are younger than their male partners (see Table 2), men will have the "primary" and women the "secondary" career. ${ }^{3}$ Correspondingly, one of the dominant explanations in the literature for the hindrance of female career efforts and thereby of dual careers addresses the age constellation, but from a gender-neutral perspective.

Here, we will add a gendered perspective on how the age constellation affects dual-career opportunities of academic couples. Age is not only a natural, but also a socially constructed characteristic. According to the naturalization of social relationships (cf. Douglas 1991), couples' age constellation may also define hierarchical and power relations between partners - i.e., the "older" partner is seen as the more experienced individual, legitimating his (or, less often, her) more powerful position in the couple. The typical age difference between men and women in couples may

3 The mean age difference between partners is about 3 years, which appears being a quite stable feature over time and across countries.
therefore "naturalize" hierarchical gender roles. In other words, different types of gender relations might be hidden behind or connected to the age difference between partners. The choice of the "typical" age constellation in heterosexual couples - i.e., the choice of an older man or a younger woman as a partner - may indicate a preference for hierarchical gender relations rather than simply a temporal careeer advantage of the man; whereas the choice of an "atypical" age constellation - i.e., the choice of a younger man or an older woman as a partner - might express a more egalitarian gender relationship between the two partners.

Table 2: Age constellations in German academic couples, 2004
(in rounded column percentages)

|  | Total | Female partner is 30-39 yrs old | Female partner is 40-49 yrs old |
| :---: | :---: | :---: | :---: |
| a) Typical age constellations |  |  |  |
| - No age difference: Age difference is max. 2 years (man is up to 2 yrs older/younger than the woman) | 52 | 53 | 52 |
| - Man is 3 to 7 yrs older than the woman | 32 | 34 | 31 |
| - Man is 8 or more yrs older than the woman* | 10 | 9 | 10 |
| b) Atypical age constellation |  |  |  |
| - Woman is 3 or more yrs older than the man | 6 | 4 | 7 |
| Total | 100 | 100 | 100 |

Case selection: Heterosexual couples, only German citizens, women between 30 and 49 years old, men born after 1943.

* The mean age difference in these couples is 11 years.

Source: Own calculations, German Micro-census 2004, weight by family projection factor.
In both (relational) perspectives, it is not only the individual age that may affect one's own career opportunities, but also his/her age relative to his/her partner's age. A gender-neutral effect of the age constellation would be indicated if the older partner - irrespective of gender - has a head start in terms of career and enjoys the "leading" career in comparison to the younger partner. Thus, dual careers should be more frequently found in couples in which the two partners are of similar age than in couples with a pronounced age difference. In contrast, according to a gender perspective on age constellation we would expect that couples in which the woman is older than the male partner more often have egalitarian arrangements. Thus, they should more frequently realize dual careers than age-typical couples.

Past research has also shown that professional fields are an important determinant of career opportunities. Their influence is connected to the relationship between labor market supply and demand at a given time as well as field-specific career-pathway patterns. Additionally, whether the professional fields of the two partners define occupational homo- or heterogeneity is of special importance. Firstly, in small local labor markets, partners in occupationally homogeneous couples might have to search for a job with the same employer. If (un)official anti-nepotism regulations exist, occupational homogeneity might constrain the professional career of (at least) one of the two partners and thereby hinder dual careers. Secondly, applying Parsons' idea (1959) of stability of and competition within couples, occupational homogeneity might lead to greater competition between partners, for example with regard to mobility decisions
and the division of household (family) duties, and therefore restrict the realization of dual careers for the sake of the "relationship". Alternatively, occupational homogeneity understood as shared social capital might instead constitute an opportunity for advantageous cooperation or mutual understanding for career steps and demands and thereby support dual careers (for a discussion see Bernasco, de Graaf \& Ultee 1998; Sonnert 2005). Competition between partners or limitations in labor markets would be indicated if partners working in the same occupational field have a lower probability of a dual career than heterogeneous couples, whereas increased cooperative relationships through occupational homogeneity would be corroborated if dual careers exist more frequently in homogenous couples.

Finally, the presence of children as well as their age(s) are known to influence females' professional careers and, therefore, should determine dual careers as well. Dual-career couples with children not only face the challenge of how to combine two careers, but also of how to intertwine occupational demands with childcare duties (e.g. Adler et al. 1989; Moen \& Wethington 1992; Nock 1998). Several scholars note that many couples often start on an egalitarian basis, but after the birth of a child - or after mobility decisions for the benefit of the male career - they move towards a more traditional division of labor within the family (Gilbert 1985; Hensel 1991; Levy \& Ernst 2002). This shift reflects still prevalent gender roles that also apply to academic women according to which, after childbirth, female partners should take on the main burden of child-rearing and show greater flexibility in order to accommodate family duties, whereas male partners are expected to ensure the financial resources of the family. As a consequence, the chances for female partners to purse their own careers diminish, since even temporary career compromises often have enduring negative consequences for professional careers. ${ }^{4}$

This impact of children may vary, however, with employment-family-coordination patterns of couples. Past research has identified three main patterns. The first one is the hierarchical (traditional) model in which only one partner - most often the man - has the dominant career role, while the other partner supports ( t )his leading career through primary responsibility for "private/family matters". Explanations for the wide prevalence of this hierarchical relationship between partners are gender role ideologies (Bielby \& Bielby 1992), considerations by the literature on new household economics (Becker 1991) and resource-exchange explanations (e.g. Blood \& Wolfe 1960; Emerson 1976). In the individualistic model, each of the two partners independently pursues his/her own career and the partnership itself plays a secondary role. This arrangement is frequently linked with long-distance or commuter living arrangements, with the goal of optimally structuring the career chances of both partners (Kilpatrick 1982). However, as soon as children are born, this individualistic arrangement begins to waver, as it is based above all on the absence of the male's resistance with regard to the female career - and this only as long as his own career is not jeopardized by it (Hertz 1986;

[^2]Levy \& Ernst 2002). ${ }^{5}$ Public and private childcare and external household assistance are mostly considered as paid substitutions for the woman. If the costs are high, the risk of a re-traditionalization, i.e., a transition to the hierarchical pattern increases. Common strategies by academic women to avoid such a collision between family and career cycles, are to remain childless (Gilbert 1985) or to postpone having children (Austin \& Pilat 1990; Costa \& Kahn 2000; Gappa 1980; Monk-Turner \& Turner 1987). ${ }^{6}$ The third coordination pattern, the egalitarian model, is considerably less frequent than the other two patterns. Here, professional careers and the family are of equal importance to the partners. Both partners therefore make compromises in their careers (or are willing to do so) in favor of their "relationship" and career opportunities for both partners (e.g. Becker \& Moen 1999; Hardill et al. 1999; Costa \& Kahn 2000).

With the data at hand, we are unable to observe directly couples' coordination strategies and, thus, their influence on dual careers. Using our idea of a gendered age constellation in couples (see above), however, we are able to indirectly derive indications on couples' career-household strategies. A gendered influence of the age constellation would be indicated by a "positive" main effect of the age-atypical constellation, i.e. age-atypical couples more often realize dual careers than age-typical couples. Given that there is a significant main effect of couples' age constellation, the results of models that simultaneously control for children could signal the following: a) if the main effect disappears after controlling for children then age-atypical couples are more often childless - indicating (indirectly) that they follow more often the individualistic model than do age-typical couples; b) if the main effect of couples' age constellation remains unchanged after controlling for children, then age-atypical couples realize dual careers to a larger extent than age-typical couples, and that regardless of children. This might indicate that age-atypical couples more often follow an egalitarian coordination pattern. Furthermore, we will control for differences between birth cohorts, in order to determine whether the relevance of individualistic and/or egalitarian coordination patterns has risen in recent years.

## 3. Empirical findings

In this section we empirically analyze the impact of the age constellation, occupational homogeneity and children on dual careers. We use the German Micro-census of 2004 (see methodological appendix). ${ }^{7}$ Our focus is on heterosexual academic couples, de-

5 Although highly qualified men more frequently show an egalitarian attitude to the work of women and division of labor in the household, in practice they rarely show egalitarian behavior (Hardill et al. 1999).
6 According to a study on academic careers (Krimmer et al. 2003), 26 percent of presentday German female professors consciously elected not to have children; this figure was only 10 per cent for male professors. As a result, in Germany today 50 per cent of female professors, but only 20 per cent of male professors are childless.
7 With this cross-sectional survey dual careers cannot be reconstructed in terms of decision situations, negotiation processes and decision outcomes. However, there is currently no alternative data base for investigating academic couples. In existing longitudinal studies, such as the Socio-economic panel of the German Institute for Economic Research and
fined as couples in which both partners hold an academic degree. Due to limited career information, we have defined dual-career couples as couples in which both partners carried out a professional occupation at the time of the survey (2004). ${ }^{8}$ We have defined professional jobs as those that formally require an academic degree or are usually occupied by persons holding an advanced academic degree.

According to this (broad) definition, half of the academic couples had dual-career arrangements, however, a significant proportion of these dual-career couples followed the "traditional" working-time pattern, i.e., the woman worked part-time (see Table 3). ${ }^{9}$ Although both partners held an academic degree, 27 percent of the couples have a (traditional) hierarchical career arrangement: the man was pursuing a professional occupation, while the woman was either not employed (14 percent) or not carrying out a professional occupation (13 percent).

Table 3: Employment/Career constellation depending on age of the woman and presence of underage children* in academic couples, 2004 (in rounded row percentages)

|  | Dual Careers |  |  | No Dual Career |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Both fulltime | Man fulltime/Woman part-time | Unusual DC | Man ca-reer/Woman job | Man career/ Woman not employed | Woman career/ Man job | Woman ca reer/Man not employed | Other |
| 30-39 yrs (Total) | 31 | 18 | 3 | 11 | 16 | 7 | 2 | 11 |
| No children | 52 | 6 | 2 | 10 | 6 | 11 | 3 | 9 |
| With children | 19 | 24 | 3 | 12 | 21 | 6 | 2 | 12 |
| 40-49 yrs (Total) | 24 | 23 | 2 | 14 | 12 | 9 | 2 | 12 |
| No children | 39 | 10 | 2 | 16 | 5 | 11 | 4 | 13 |
| With children | 18 | 29 | 3 | 13 | 16 | 9 | 2 | 11 |
| Total | 27 | 21 | 3 | 13 | 14 | 9 | 2 | 11 |

Case selection: Heterosexual couples, only German citizens, women between 30 and 49 years old, men born after 1943.

* The Micro-census' category "children" includes biological, adopted, foster and stepchildren insofar as they live together with at least one parent in the household.
Source: Own calculations, German Micro-census 2004, weight by family projection factor.
Our analyses will take place in three steps. As an essential precondition of dual careers we investigate first whether both partners are employed - regardless of the qualification level of jobs. As a second precondition we examine whether the female

German Life History Studies of the Max Planck Institute for Human Development, the number of academic couples is too small.
8 The classification of professional jobs is based on the classification of occupations by the German Federal Statistical Office (it is a 3-digit code comparable to the International Standard Classification of Occupations, ISCO).
9 In the last 10 years, the chances of realizing dual careers have not changed. In 1997, only half of the academic couples had a dual-career arrangement; in 29 percent of the couples both partners pursued a professional job full-time and another 19 percent of the couples followed a traditional working-time arrangement (man full-time - woman part-time) (cf. Solga, Rusconi \& Krüger 2005).
partners have access to professional jobs. And finally - as a "result" - we estimate a model on dual careers. For all three steps we present results of multinomial logistic regressions, as each of the dependent variables has several categories. In the regression tables, we display the odds ratios. Odds ratios greater than 1 signify a greater chance/risk, odds ratios smaller than 1 indicate a lower chance/risk in comparison to the respective reference category (which has the value 1 ).

Starting with the first precondition for dual careers, the employment of both partners, we note that the overwhelming majority of the academic couples realize dualearner arrangements ( 79 percent). Only 17 percent of the couples follow the malebreadwinner model or the hierarchical coordination pattern (i.e., only the male partner is employed). However, Table 4 shows that female employment - particularly full-time - is strongly related to the presence of underage children in the family household. Among childless academic couples only a minority follows a traditional employment constellation in which the woman is either not employed ( 6 percent) or has only a parttime job ( 15 percent). In over two thirds of these childless couples both partners are employed full-time. Quite to the contrary, less than one third of couples with underage children shows a full-time dual-earner arrangement. A far more common strategy for academic couples with children is the part-time employment of the female partner (40 percent) or her complete withdrawal from the labor market ( 22 percent). Thus, once children are born, even couples in which both partners have made considerable educational investments are characterized by a more traditional (gendered) division of labor. By reducing the female commitment to the labor market, this traditional arrangement may also hinder dual careers because professional careers are seldom achieved in parttime positions and/or with (temporal) interruptions in employment careers.

Table 4: Employment constellation depending on age constellation and presence of underage children in academic couples, 2004 (in rounded row percentages)

|  | Both <br> full-time <br> No children <br> woman part- <br> time | Man full-time/ <br> Only man <br> employed | Unusual <br> employment <br> constellation* |  |
| :--- | :---: | :---: | :---: | :---: |
| Total | $\mathbf{6 9}$ | $\mathbf{1 5}$ |  |  |
| No age difference (max. 2 yrs) | 70 | 15 | 6 | $\mathbf{1 0}$ |
| Man is 3-7 yrs older | 67 | 15 | 7 | 9 |
| Man is 8 or more yrs older | 68 | 15 | 6 | 11 |
| Woman is 3 or more yrs older (= atypical) | 72 | 9 | 10 | 11 |
| With children |  |  |  | 10 |
| Total | $\mathbf{3 0}$ | 40 | $\mathbf{2 2}$ | $\mathbf{7}$ |
| No age difference (max. 2 yrs) | 29 | 41 | 22 | 8 |
| Man is 3-7 yrs older | 31 | 40 | 22 | 7 |
| Man is 8 or more yrs older | 33 | 40 | 19 | 8 |
| Woman is 3 or more yrs older | 31 | 39 | 22 | 8 |
| (=atypical) |  |  |  |  |

* Both partners work part-time; woman full-time/man part-time; only woman employed; both partners not employed.
Case selection: Heterosexual couples, only German citizens, women between 30 and 49 years old, men born after 1943.
Source: Own calculations, German Micro-census 2004, weighted by family projection factor.

Noteworthy, 29 percent of the dual-earner academic couples show an occupational homogeneity; i.e., both partners are employed in the same occupational sector. With regard to the age constellation, atypical couples (i.e., in couples in which women are the older partner) do not differ in their employment arrangement from couples with a typical age constellation.

By means of multivariate analyses we will now determine the (net) influence of the age constellation, occupational homogeneity and children on the chances of realizing dual-earner arrangements. The findings presented in Table 5 (model 1 and 2) disclose that for the classical gendered division of labor not children as such but underage children prove to be of tremendous importance, particularly if they are younger than three years old. In comparison to childless couples, in families with small children the female partners are twice more likely to be not employed than to purse at least a part-time job, while their male partners are full-time employed. Thus, even in academic couples, children hinder an egalitarian employment constellation. And this negative effect of children on dual-earner arrangements does not vary among couples with different age constellations (data not shown). ${ }^{10}$

The age constellation of couples also has an influence on the employment arrangements. Yet, as revealed by the interaction terms, this effect varies by women's birth cohort (cf. model 2 in Table 5). For the younger cohort (i.e., women aged between 30 and 39), in couples in which the partners are of the same age, the question appears to be either all or nothing: either both partners have a full-time job (odds ratio $=1,68$ ), or the woman forgoes formal employment altogether (odds ratio $=$ $1,58) .{ }^{11}$ Thus, female part-time employment does not appear a "favored" strategy for these couples. In terms of full-time or part-time dual-earner arrangement, both age atypical couples (woman is older) and those with a very typical age constellation (i.e., woman is 3 to 7 years younger) are not different from same-aged couples. In contrast, couples in which the man is 8 or more years older than the woman have a lower chance of following a full-time dual-earner arrangement than couples of other age constellations. ${ }^{12}$ In terms of traditional employment arrangements ("only the man is employed"), however, couples in which male partners are 8 years older than the women are not different from same-aged or age atypical couples. In addition, couples with a very typical age constellation show even lower odds for this traditional division of labor than couples of other age constellations, but also "unusual" employment constellations are found less often among such traditional couples. ${ }^{13}$

10 For space reasons the results of the model with interaction effects between age constellation and children is not included in Table 5. Data is available from the corresponding author on request.
11 Because of the included interaction effects (in model 2) the odds of employment pattern of same-aged couples (reference category) are displayed by the main effects of "age of the women" (or women's birth cohort).
12 Odds ratio difference $=1.43 * 0,49=0,7$
13 For "only man employed" the odds ratio difference for couples in which the man is 3 to 7 year older than the woman is 1,23 (n.s.) $* 0,70=0,86$ (n.s. means not significant); for "unusual employment constellation" the odds ratio difference is $1,37 * 0,54=0,74$.

Table 5: Multinomial logistic regressions on the employment constellation in academic couples (reference category: Man full-time - Woman part-time) (odds ratios, $\mathrm{N}=4,308$ couples)

|  | Both full-time employed |  | Only man employed |  | Unusual constellation+ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Mod. 1 | Mod. 2 | Mod. 1 | Mod. 2 | Mod. 1 | Mod. 2 |
| Age constellation (Ref: No age difference, max. 2 yrs.) |  | 1 | 1 | 1 | 1 | 1 |
| Man is 3-7 yrs older | 1,00 | 1,06 | 1,05 | 1,23 | 1,05 | 1,37* |
| Man is 8 or more yrs older | 1,07 | 1,43** | 1,04 | 0,98 | 1,10 | 1,31 |
| Woman is 3 or more yrs older | 1,20 | 1,21 | 1,33 | 1,18 | 1,07 | 0,88 |
| Age of the woman (Ref: 40-49 yrs old) | 1 | 1 | 1 | 1 | 1 | 1 |
| 30-39 yrs old | 1,49*** | 1,68*** | 1,44*** | 1,58*** | 0,97 | 1,20 |
| Number of children (Ref: No children under 18 yrs) | 1 | 1 | 1 | 1 | 1 | 1 |
| 1 child | 0,30*** | 0,30*** | 0,71* | 0,71* | 0,36*** | 0,36*** |
| 2 children | 0,18*** | 0,18*** | 0,66** | 0,66** | 0,25*** | 0,25*** |
| 3 or more children | 0,14*** | 0,14*** | 1,37 | 1,36 | 0,25*** | 0,25*** |
| Age of the youngest child (Ref: no child under 11 yrs) | 1 | 1 | 1 | 1 | 1 | , |
| Under 3 yrs | 1,09 | 1,08 | 2,15*** | 2,17*** | 1,77** | 1,80** |
| 3-10 yrs | 0,60*** | 0,60*** | 1,46*** | 1,49*** | 1,07 | 1,10 |
| Interaction: Age of woman * Age constellation |  |  |  |  |  |  |
| $30-39 \mathrm{yrs}$ old * Man is $3-7 \mathrm{yrs}$ older |  | 0,85 |  | 0,70* |  | 0,54** |
| 30-39 yrs old * Man is 8 or more yrs older |  | 0,49** |  | 1,03 |  | 0,64 |
| 30-39 yrs old * Woman is 3 or more yrs older |  | 1,18 |  | 1,62 |  | 1,95 |
| Improvement of fit (df): | 1249,84 (42) *** (Model 1) |  |  |  |  |  |
|  | 1267,65 (51) ${ }^{* * *}$ (Model 2) |  |  |  |  |  |

+ Unusual employment constellation: Both work part-time; woman full-time/man part-time; only woman employed; both partners not employed.
Controlled for size of residence, place of residence in East or West Germany, married/unmarried cohabitation
Coefficients are significant: $\mathrm{p}<0.01^{* * *} ; \mathrm{p}<0.05^{* *}, \mathrm{p}<0.1$
Case selection: Heterosexual couples, both partners German citizens, women between 30 and 49 years old, men born after 1943.
Source: Own calculations, German Micro-census 2004, unweighted.
For the older cohort (i.e., women aged between 40 and 49), differences between couples are less pronounced. In contrast to the younger cohort, "unusual" employment constellations are found surprisingly to a higher extent in age-typical couples (odds ratio $=1,37$ ) than in couples with other age constellations. In addition, if their partner is 8 or more years older, the 40 -to- 49 -year-old female partners have a greater probability to work full-time than to follow a part-time dual-earner arrangement (odds ratio $=1,43$ ). In sum, in both cohorts, contrary to our expectations, ageatypical couples do not have a higher probability of dual-earner arrangements.

All together, underage children lower the chances of female academics' labor force participation and thereof dual-earner arrangements. Moreover, our results indicate that this employment constellation varies by both women's birth cohort and couples' age constellation. In academic couples belonging to the younger cohort, men are more likely to enjoy an employment advantage. More or less independently of couples' age constellation, in this cohort there exists an employment "divide" because full-time dual-earner arrangements or the male-breadwinner model are more common than the part-time dual-earner model. In the older cohort, an older male
partner appears to enhance the chances of a dual full-time arrangement for couples in which women are 8 years younger than the men and of unusual employment constellations for age-typical couples (man 3 to 7 years older). These variations in the impact of the age constellation by women's birth cohorts are not caused by (a composition effect with regard to) children, as these were simultaneously taken into account in the models (see also Appendix, Table A3). Therefore another reason may lie behind this cohort-specific influence of the age constellation. The variation might indicate that when the woman is still young and in the process of positioning herself on the labor market, more couples might give priority to the employment of the (older) already more established male partner. Once couples and thus women age, they might (be able to) develop more egalitarian employment arrangements. In contrast to this age-effect explanation, there might be also a cohort explanation according to which women and men of the 1955-to-1964-cohort, for example, have more egalitarian gender roles or had better career (labor market) conditions at the beginning of their professional careers (i.e., in the 1980s). Given the limitations of the cross-sectional data used here, we are unable to differentiate between the two explanations.

As labor market research has shown, a second major constraint for dual careers are the career chances of women. Table 6 presents the results for the influence of the age constellation, occupational homogeneity and children on the chances of employed female partners (in academic couples) to follow a professional occupation. Similar to the employment constellation, the presence of underage children reduces the probability of female full-time professional employment (indicated in model 1 by the odds ratios for women with children for the category "full-time professional job" which are smaller than 1). This negative effect of children on female full-time professional engagement does not vary between couples with different age constellations (data not shown). ${ }^{14}$ Academic women with children do however, have a greater likelihood in comparison to childless women, of being able to at least pursue a professional job part-time (indicated in model 1 by the odds ratios for women with children for the category "no professional job" which are smaller than 1). Thus, those women who succeed in being employed "in spite of" children are then more likely to pursue a professional occupation (at least part-time) than just a "job".

14 For space reasons the results of the model with an interaction effects between age constellation and children is not included in Table 6. Data is available from the corresponding author on request.

Table 6: Multinomial logistic regressions on the chance of being employed in a professional job by female academics in academic couples (reference category: Part-time professional job) (odds ratios, $\mathrm{N}=3,538$ only employed female academics)

|  | No professional job |  | Full-timeprofessional job |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Mod. 1 | Mod. 2 | Mod. 1 | Mod. 2 |
| Age constellation (Ref: No age difference, max. 2 yrs.) | 1 | 1 | 1 | 1 |
| Man is 3-7 yrs older | 0,85 | 0,80 | 0,97 | 1,03 |
| Man is 8 or more yrs older | 0,87 | 0,73 | 0,97 | 1,23 |
| Woman is 3 or more yrs older | 0,81 | 0,67 | 1,13 | 1,05 |
| Age of the woman (Ref: 40-49 yrs old) | 1 | 1 | 1 | 1 |
| 30-39 yrs old | 1,03 | 0,86 | 1,38*** | 2,12*** |
| Occupational homogeneity (defined by occupational field) (Ref: Heterogeneous couples, man in sales/office jobs) | 1 | 1 | 1 | 1 |
| Man is not in employment | 1,23 | 1,20 | 1,50 | 1,49 |
| Homogeneous - sales/office jobs | 1,56** | 1,58** | 1,55** | 1,56** |
| Homogeneous - health | 0,09*** | 0,09*** | 1,36 | 1,33 |
| Homogeneous - education and teaching | 0,06*** | 0,06*** | 0,83 | 0,83 |
| Homogeneous - technical jobs | 0,18*** | 0,18*** | 1,48 | 1,52* |
| Homogeneous - other job areas | 0,66 | 0,66 | 0,88 | 0,89 |
| Heterogeneous - Man in health, education, technical \& other jobs | 0,89 | 0,89 | 0,86 | 0,85 |
| Age of the youngest child (Ref: No children under 18 yrs) | 1 | 1 | 1 | 1 |
| Under 3 yrs | 0,38*** | 0,35*** | 0,22*** | 0,25*** |
| 3-10 yrs | 0,30*** | 0,28*** | 0,12*** | 0,19*** |
| 11-17 yrs | 0,46*** | 0,42*** | 0,24*** | 0,27*** |
| Interaction: Age of woman * Age of youngest child |  |  |  |  |
| $30-39$ yrs old * Child under 3 yrs |  | 1,17 |  | 0,71 |
| $30-39$ yrs old * Child 3-10 yrs |  | 1,13 |  | 0,36*** |
| $30-39$ yrs old * Child 11-17 yrs |  | 3,23** |  | 1,41 |
| Interaction: Age of woman * Age constellation |  |  |  |  |
| $30-39 \mathrm{yrs}$ old * Man is $3-7 \mathrm{yrs}$ older |  | 1,13 |  | 0,90 |
| 30-39 yrs old * Man is 8 or more yrs older |  | 1,44 |  | 0,57* |
| 30-39 yrs old * Woman is 3 or more yrs older |  | 1,98 |  | 1,37 |
| Improvement of fit (df): | $\begin{aligned} & 946,22 \\ & 991,89 \\ & \hline \end{aligned}$ | ${ }^{* *}$ (Model <br> ** (Model |  |  |

Controlled for size of residence, place of residence in East or West Germany, married/unmarried cohabitation
Coefficients are significant: $\mathrm{p}<0.01^{* * *} ; \mathrm{p}<0.05^{* *}, \mathrm{p}<0.1$
Case selection: Employed female academics in heterosexual couples, both partners German citizens, women between 30 and 49 years old, men born after 1943.
Source: Own calculations, German Micro-census 2004, unweighted.
The interaction effect between age of children and women's birth cohort reveals that this strategy of reconciling work and family duties through the woman's reduced working hours is followed more often by older rather than younger female academics. ${ }^{15}$

15 This corresponds with the finding that in older cohort, part-time and full-time dual-earner arrangements were equally likely, whereas in the younger there was a division between full-time dual-earner or male-breadwinner families.

Younger female academics with 11-to-17-year-old children - who thus had their children at a relatively early age compared to older female academics with children of the same age - have a higher risk of being employed in a non-professional position. ${ }^{16}$ In addition, younger female academics with 3-to-10-year-old children have clearly lower chances of carrying out a full-time professional occupation (than a part-time professional job) compared to older female academics with children of the same age. ${ }^{17}$

With regard to age constellation, our results reveal almost no effects (cf. model 1 in Table 6). If women are employed, female academics of the younger cohort have higher chances to have a full-time professional occupation than a part-time one and in this regard differences among couples' age constellations are rather small. Only in the younger cohort do women with a considerably older partner (8 or more years) have a lower probability of a full-time rather than part-time professional occupation compared to women in couples with other age constellations. ${ }^{18}$

Finally, occupational homogeneity between partners generally enhances women's chances not only of being employed, but also of pursuing a professional occupation. Female academics in homogeneous couples in health and education/teaching have a higher likelihood of being employed (at least) part-time in a professional occupation (odds ratios for "no professional jobs" versus part-time professional jobs/reference category are smaller than 1 and for "full-time professional positions" are not significant). Employed female academics in homogeneous couples in technical jobs have higher chances of working in part-time and full-time professional positions (see also section 4). Among homogeneous couples, the chances for female professional careers in sales/clerical occupations seem to be divided because, on the one hand, they have a higher risk of being employed in non-professional jobs (odds ratio $=1,58$ ), yet on the other hand, if they do practice a professional occupation, they have a greater chance of doing so full-time (odds ratio $=1,56$ ). All together, these results speak in favor of more cooperative (rather than competitive) relationships within occupationally homogeneous couples.

To conclude, children constrain the opportunities for full-time professional careers of women in academic couples, and this more so in the younger than the older cohort. Given the same age of children in 2004, this cohort difference expresses the women's age at the transition to motherhood. It indicates that the younger female academics are at child birth, the lower are their career chances. The couples' age constellation plays a minor role in shifting the likelihood of female employment in a professional position. And finally, occupational homogeneity between partners seems to enhance the professional careers of women, which suggests that such homogeneity constitutes shared (borrowed) social capital in couples rather than increasing (hierarchical) competition between the partners.

In our final step, we now examine the importance of the age constellation, occupational homogeneity and children for the realization of dual careers in academic couples, given that the hurdle of a dual-earner arrangement has already been successfully overcome. Accordingly, our multivariate analyses only include couples in
which both partners are employed (Table 7). The results show that children and occupational homogeneity are the main factors that hinder or increase the chances of academic couples to pursue dual careers.

Table 7: Multinomial logistic regressions on the chance of realizing dual careers in academic couples (reference category: no dual career) (odds ratios, $\mathrm{N}=3,284$ couples in which both partners are employed)

|  | Dual career: both partner full-time |  |  | Dual career: man full-time <br> - woman part-time |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Mod. 1 | Mod. 2 | Mod. 3 | Mod. 1 | Mod. 2 | Mod. 3 |
| Age constellation (Ref: No age difference, max. 2 yrs.) | 1 | 1 | 1 | 1 | 1 | 1 |
| Man is 3-7 yrs older | 1,16 | 1,22 | 1,22 | 1,14 | 1,08 | 1,09 |
| Man is 8 or more yrs older | 1,29 | 1,55** | 1,52** | 1,36* | 1,34 | 1,34 |
| Woman is 3 or more yrs older | 1,02 | 0,98 | 0,99 | 0,94 | 0,99 | 0,99 |
| Age of the woman (Ref: 40-49 yrs old) | 1 | 1 | 1 | 1 | 1 | 1 |
| 30-39 yrs old | 1,32*** | 1,74*** | 1,96*** | 0,91 | 0,73 | 0,75 |
| Occupational homogeneity <br> (Ref: Heterogeneous couple) | 1 | 1 | 1 | 1 | 1 | 1 |
| Homogeneous couple | 5,52*** | 5,59*** | 7,40*** | 3,97*** | 3,94*** | 4,74** |
| Age of the youngest child <br> (Ref: No children under 18 yrs) | 1 | 1 | 1 | 1 | 1 | 1 |
| Under 3 yrs | 0,63*** | 0,80 | 0,79 | 3,40*** | 3,82*** | 3,80*** |
| $3-10$ yrs | 0,42*** | 0,63*** | 0,63*** | 4,17*** | 3,72*** | 3,72*** |
| 11-17 yrs | 0,56*** | 0,59*** | 0,58*** | 2,68*** | 2,57*** | 2,55*** |
| Interaction: Age of woman * Age of youngest child |  |  |  |  |  |  |
| 30-39 yrs old * Child under 3 yrs |  | 0,68 | 0,70 |  | 0,96 | 0,97 |
| $30-39$ yrs old * Child 3-10 yrs |  | 0,40*** | 0,41*** |  | 1,33 | 1,35 |
| $30-39$ yrs old * Child 11-17 yrs |  | 1,17 | 1,14 |  | 0,50 | 0,50 |
| Interaction: Age of woman * Age constellation |  |  |  |  |  |  |
| $30-39 \mathrm{yrs}$ old * Man is $3-7 \mathrm{yrs}$ older |  | 0,92 | 0,92 |  | 1,12 | 1,11 |
| $30-39$ yrs old * Man is 8 or more yrs older |  | 0,67 | 0,70 |  | 1,03 | 1,04 |
| $30-39$ yrs old * Woman is 3 or more yrs older Interaction: Age of woman* |  | 1,05 | 1,05 |  | 0,69 | 0,69 |
| Occupational homogeneity |  |  |  |  |  |  |
| 30-39 yrs old * Homogeneous couple |  |  | 0,57** |  |  | 0,69 |
| Improvement of fit (df): | 1002,63 | (28) *** | (Model 1) |  |  |  |
|  | 1034,74 | (40) *** | (Model 2) |  |  |  |
|  | 1044,00 | (44)*** | (Model 3) |  |  |  |

Controlled for place size, place of residence in East or West Germany, married/unmarried cohabitation.
Coefficients are significant: $\mathrm{p}<0.01^{* * *}$; $\mathrm{p}<0.05^{* *}, \mathrm{p}<0.1^{*}$
Case selection: Both partners employed, heterosexual couples, both partners German citizens, women between 30 and 49 years old, men born after 1943. Couples with atypical dual-career constellation were not taken into account due to the small sample size.
Source: Own calculations, German Micro-census 2004, unweighted.
As expected, children reduce the probability of full-time dual careers (indicated by the significant main effect of children in model 1) ${ }^{19}$ and particularly the chances of

19 The negative effect of children on full-time dual-careers does not vary among couples with different age constellation (data not shown). For space reasons, the results of the
those couples in which the female partner is between 30 and 39 years old. ${ }^{20}$ However, academic couples with children have a greater likelihood of pursuing "at least" a dual-career arrangement with a traditional working-time arrangement (man fulltime, woman part-time) than childless couples. Thus, among childless dual-earner couples there is a larger divide between egalitarian couples (full-time dual career) and traditional (one-career) couples, whereas among the dual-earner couples with children there is a larger number of partial egalitarian couples (dual careers with a traditional working-time pattern). However, we must keep in mind that the models in table 7 considered only couples in which both partners are employed. As our previous results have shown, the existence of children determines whether or not couples follow dual-earner arrangements in the first place (see Table 5). Nonetheless, those couples - or more precisely, those women who with the support or against the will of their partner - succeed in being employed "in spite of" children are then more likely to pursue dual careers (albeit with unequal working hours).

Occupational homogeneity in academic couples seems to foster full-time dual careers (positive odds ratio), and this to a larger extent in the older than the younger cohort, ${ }^{21}$ as well as dual careers with a traditional working-time pattern (odds ratio $=$ approximately 4) - caused through better cooperation or "only" by better understanding career requirements.

Finally, with regard to the age difference between partners, the main effects in models 2 and 3 show that - especially in the older cohort ${ }^{22}$ - couples in which the male partner is considerably older than the woman (i.e., at least 8 years) have a higher likelihood to pursue dual careers full-time. Given that both partners are employed, this finding suggests that a temporal career advantage of the man does not necessarily imply that the female partner suffers disadvantage. Rather, if the age difference is "large enough" and thus the partners are at very different stages in their careers, this age constellation may be congruent with egalitarian dual-career arrangements.
model with an interaction effects between age constellation and children is not included in Table 7. Data is available from the corresponding author on request.
20 Odds ratio difference $=1,96 * 0,41=0,8$ in model 3
21 The odds ratio difference to heterogeneous couples within cohorts for "full-time dual career" are: for 40-to-49-year old women $=7,4$ compared to 30 -to- 39 -year-old women $=$ $7,4 * 0,57=4,22$.
22 The comparison of model 1 and 2 suggests that this positive effect is especially true for couples in which the woman is between 40 and 49 years old. The effect of the age constellation becomes first significant in model 2 with the introduction of the interaction effect with women's age, which is - though not significant - less than 1 for couples in which the woman is 30 to 39 years old and 8 or more years younger than the male partner.

## 4. Institutional constraints on dual careers in Germany's academia

Besides the characteristics of individuals and couples, normative and structural constraints hinder the achievement of dual careers. Recruitment and promotion practices in professional fields shape the work histories and career opportunities of individuals as well as couples. If organizations ignore the family and/or partnership context (e.g., if they follow un/official anti-nepotism regulations that forbid both individuals' employment in the same organization - which eventually discriminate against the younger, usually female, partner) they are powerful constraints for the realization of dual careers. In North America, for example, anti-nepotism policies are allowed only when they are applied without a gender bias. However, given their adverse impact on female careers they have been largely abolished since the 1970s (Dagg 1993; McNeil \& Sher 2001). Instead, recruitment practices that accommodate dual-career partners and take into account the "family context" of male and female academics have been increasingly developed in order to successfully recruit and retain qualified candidates (for a review of 'spouse-hiring' programs at US universities, see Rusconi 2002). The situation in Germany is different: the interest in dual-career arrangements and institutional support for dual careers are still relatively new in both scholarly debates and personnel strategies. Private enterprises were the first to recognize the need to accommodate dual-career couples (Domsch 1989; 1992; Domsch \& Ladwig 1997; Domsch \& Krüger-Basener 1999), and the public sector continues to trail behind. ${ }^{23}$

Given the lack of adequate data on general employers' practices toward dual careers couples, we have to limit our analysis to a case study. In this section, we will therefore report on some institutional constraints for dual careers at German universities and advanced colleges. They provide an example of academics' employers that delivers insights into the (external) normative and institutional context in which academic couples try to realize dual careers. Although only a minority of individuals and couples with a university degree pursue (or seek) a career in academia, the focus on higher education institutions is particularly interesting because it appears that the very institution that provides the precondition or resources (i.e., academic education) for equal opportunities between men and women denies them in practice: careers in German academia are to a great extent male careers. ${ }^{24}$ Moreover, academia is a clear example of a tight labor market and thus if both partners pursue academic careers they will more likely have to apply (and possibly even compete) for the same jobs or jobs offered by the same employer.

We will use data of a survey conducted by Germany's Young Academy of Science (Junge Akademie) in 2001. In this survey, top administrators and affirmative

23 In Berlin, for example, an anti-nepotism law from 1954 still applies which forbids the employment of spouses in the same institution in the public sector.
24 In 2004, 49 percent of the university graduates were women, but the female ratio among the PhDs was only 39 percent, among the academics with the "second German PhD " (called "Habilitation") only 23 percent and among the professors only 14 percent (Statistisches Bundesamt 2006).
action officers of German universities and colleges (in the following, "universities") were asked about their opinions about family issues and their support for dualcareers - key issues for being able to successfully transfer couples' dual-career efforts into real dual careers. ${ }^{25}$

With regard to external dual-career constraints for German academic couples, we will report on three important questions: (1) Do partners' career prospects play a role in offers for professorships, and how does their influence vary by gender and academic field of candidates? Answers to these questions reveal the increasing interest in dual careers by academic couples and - given gender and field differences - variations in negotiation power and/or opportunity structures for professional careers in local labor markets outside universities. (2) How do German universities react to dual career (including family) requests by professorship candidates? These reactions constrain opportunities for academic couples to coordinate two careers and their family life. And (3) how do universities support academic careers with children and, thus in a broader sense, not only dual-career couples, but also dual-career families?

With respect to the first question, the results of this survey show that dual careers are an issue at German universities. Over 60 percent of the participating top administrators reported that they had been confronted with dual-career issues during job interviews for professorships. This issue appears to be addressed more frequently by candidates from the humanities or social sciences than by candidates from natural sciences or medical schools. Given the quite large number of academic couples which is homogeneous with regard to partners' professional fields (see section 3 and Appendix, Table 2a), this difference suggests that, depending on the partner's professional background and thus his/her chances on the local labor market (which are usually poorer for the humanities and social sciences), academic couples need active support by universities to find an adequate employment for their partner to varying extents. ${ }^{26}$

In addition, whereas over half of the affirmative action officers reported that this issue had been raised equally often by male and female candidates, the majority of the top administrators stated that especially male candidates addressed this subject ( 67 percent). This difference is partially due to the fact that affirmative action officers and top administrators are engaged at different stages in the appointment procedure: whereas the former are member of the appointment committee, top administrators become active once a candidate has been offered a position. So fewer dualcareer requests by women mentioned by top administrators is partially due to the fact that women are still appointed as professors much less frequently than men. ${ }^{27}$

25 The response rate of this mailed survey was very high: 181 top administrators from 322 universities ( 56 percent) and 149 affirmative action officers ( 46 percent). For further information see Rusconi \& Solga (2002), available at www.diejungeakademie.de.
26 This interpretation is corroborated by our analyses using the Micro-census 2004 (see section 3, Table 6). Female academics in occupationally homogeneous couples in technical fields have higher chances to pursue a full-time professional job. (The positive, but not significant, magnitude of the effect for "health" couples suggests the same).
27 In 2005, only 14 percent of the (associate and full) professors at German universities and colleges were women, among the full (C4/W3) professors there were less than 10 percent women (Statistisches Bundesamt 2006).

The increase of dual-career couples who are not willing to sacrifice one partner's career in favor of the other partner's career is reflected in rejected offers of a professorship due to a lack of adequate professional opportunities for the partner. Almost half of the universities reported that, within the last two years, they had received refusals which were solely or partially motivated by career considerations for the partner. Because such rejections are becoming increasingly problematic in the world-wide competition for the best candidates, ${ }^{28} 58$ percent of the top administrators and 55 percent of the affirmative action officers at German universities think that the partner's employment prospects should be part of the negotiation process for professorships. Particularly affirmative action officers are aware that universities' support for dual-career couples is essential to achieve equal opportunities between men and women.

Given this high degree of consensus on the increasing relevance of dual-career issues at German universities, how do universities respond to such requests by professorship candidates? Although official spouse-hiring programs do not exist at German universities, more than half of the top administrator respondents - confronted with a candidate's dual-career requests - reported that they provided different types of assistance for the partner's employment. However, only a minority offered jobs within the same university (less than 10 percent). Supporting partners' employment/careers mainly meant contacting employers outside the university.

Our multivariate analyses have shown, however, that support was offered more often when male candidates addressed the employment prospects of their partner (see Solga \& Rusconi 2004: 82). Two reasons might explain why it appears to be easier for universities to help female "partners" to find a new job. Firstly, women are usually younger than their male partners and therefore seldom eligible for a professorship themselves; whereas this might not be the case for male (typically older) partners of female candidates (see also section 2). Secondly, female partners are often school teachers (cf. Appendix, Table A2) and, thus, job moves can be initiated by universities' close contacts to the ministry of education.

These reported reactions by top administrators are, however, only part of the story. Since top administrators are involved in the recruitment process once a candidate has been offered a position, they may have an interest in solving problems, which may hinder the appointment. The answers of affirmative action officers reveal that appointment committees are less "sympathetic" to dual-career issues; especially when they are brought forward by female candidates (Rusconi \& Solga 2002). Women who inquire about employment opportunities for their partners are often regarded as not being "serious" candidates. But even if female candidates do not raise this issue themselves, their chances of getting on the short list is often lower than that of male applicants because the committee's members often assume traditional gender roles and doubt that male partners will be willing to relocate. In addition, commuting as a private solution of geographical mobility in academic couples is often seen critically and penalized by appointment committees as well. All in all, nowadays it seems to be easier

[^3]to address dual-career issues, at least as a top candidate. Yet, practical and not only rhetorical support remains quite exceptional nevertheless.

With regard to the third and last question, in spite of the increasing awareness of dual-career issues at German universities, child-care issues still get less attention. In over 60 percent of the universities, the time spent for childcare is either never or only very rarely taken into account by measuring and assessing candidates' publication productivity. Only one-quarter of the German universities regularly take into account time spent for childrearing - but usually only when candidates made use of parental leave. This "ignorance" of not considering parental duties - which is often considered to be gender-blind or gender-neutral - has, however, quite gendered consequences because predominantly mothers try to reconcile career and childcare without parental leave or by taking an abbreviated leave. Consequently, if the presence of children (regardless of parental leave) is not given due credit, there is a risk that female academics with children will be indirectly discriminated against, because they might be considered less productive than male or childless female academics. Furthermore, over half of the universities provide no childcare facilities. Academics with children have to rely upon childcare facilities of the local community, whose opening times are often incompatible with the "flexible full-time job" prevalent in academia.

The results of the survey show that German universities lack institutionalized dual-career policies, even if the majority of top administrators and affirmative action officers acknowledge the importance of and the advantages for institutions to accommodate dual-career couples. Moreover, the situation of younger academic couples - at career stages below professorships - is even worse, given their lack of status power and mostly fixed-term contracts.

## 5. Conclusions

Our results have shown that German academia is still a man's world with rather traditional employment/career arrangements, even among academic couples. It is mostly the constraints on professional careers of academically trained women that hinder dual careers in academic couples.

The first critical point is the employment arrangement within the couple, which is dependent on the presence of underage children, on the woman's birth cohort and on the couples' age constellation. With regard to women's birth cohort, in the younger cohort female academics were less willing (or likely) to work part-time than women of the older cohort. In the older cohort, especially couples in which the gender "typical" age difference was very large (i.e., woman is 8 or more years younger), followed full-time dual-earner arrangements. The second critical point for dual careers is the probability that female academics will not only be employed, but also pursue a professional career. Here, we found that if female academics with (underage) children are employed then they have higher odds of occupying professional positions than childless academics - however, often they do so (only) part-time. Interestingly, occupational homogeneity seems to enhance females' professional careers. Finally, what are the main obstacles and determinants of realizing dual careers
in German academic couples? Considering only dual-earner couples, children reduce the chances of full-time dual careers, occupational homogeneity increases the odds of dual careers, and age-typical couples in which the woman is much younger ( 8 years and more) than the man have heightened chances to achieve dual careers.

All together, "childlessness" can be seen as a "strategy" to promote and realize dual careers. On each "dimension of dual careers" (partners' labor force participation and working time, the female's professional position, and professional positions for both partners), children add to the risk of couples having a one-career (hierarchical) coordination strategy. As the survey results of top administrators and affirmative actions officers at German universities have revealed, "gender-blind" recruitment criteria contribute to a large extent to this risk. To avoid or reduce this hazard, German academic couples often (successfully) try to establish (at least) a part-time career for the female partner. This was more accepted by women of our older cohort (i.e., 40 -to- 49 -years-old) than by women of our younger birth cohort (i.e., 30-to-39-years-old). Our findings from the German university survey (see section 4) corroborate this cohort difference: today, German academic couples - male and female partners - express the dual-career issue more pronouncedly and publicly than in the past. In addition, regardless of age, occupationally homogeneous couples are more often dual-career couples than heterogeneous couples - supporting the idea that in the former, support and understanding for career demands are higher and shared social networks increase career opportunities.

Our hypotheses on gender-neutral versus gendered consequences of couples' age constellation are not fully resolved as we have found supporting as well as contradictory results for each perspective. The main result is that the age constellation of couples very rarely had an impact on dual-career chances. Thus, with respect to the (dominant) gender-neutral explanation, it is not the age difference in partnerships that defines a "leading" career of the older partner (most often the man). Our findings also speak against the other common explanation of the hindrance of dual careers - namely that women are generally disadvantaged. In fact, couples in which women are much younger than their male partners, actually have a higher chance of realizing full-time dual-career arrangements - and this is not caused by having fewer children. These and other findings illustrate that the age constellation in partnerships does not refer to a purely temporal relationship, but rather to a relational social characteristic of couples which might be linked with partnership arrangements. From such an interactive perspective, the age constellation of couples would not be an unintended result of partner choice - resulting from the age structure and constraints of the partner market ${ }^{29}$ - but rather a deliberate aspect of partnership formation.

29 "An interesting finding is that with increasing age, women choose increasingly younger partners. But this has little to do with increasing emancipation or the like. For men it is also the case that the older the man the younger the partner. And the simple reason lies in the age structure of the marriage market: The older the man or woman is himself or herself, the more potential partners of the same or a higher age are already committed and the more strongly the opportunity structure shifts in favor of a younger partner" (Klein 2000: 237, translation by the authors).

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## Appendix:

The German Micro-census is the official representative census on the population living in Germany, in which 1 per cent of all households participate. Each year data from approximately 820,000 persons living in 370,000 households are gathered. For these analyses, the German Micro-census from 2004 was used. From the available data pool, the unit of analysis is academic couples, defined as partnerships in which both partners hold an academic degree and who live together in shared living quarters (whether in a marriage or domestic partnership). Couples who run separate households ("living apart together") cannot be identified with the German Microcensus. Only heterosexual academic couples in which both partners hold German citizenship were considered. This selection was necessary, as the case numbers for same-sex and bi-national couples are too small for their necessary consideration in the analyses. In addition, only couples were analyzed in which the women were between 30 and 49 years old in 2004. In light of the examination of professional careers, we focus on the "prime age" in the career at which time labor market entry processes should already have ensued. Finally, we have excluded all of those couples in which the man was born before 1943 (in order to rule out processes of exit from the labor market).

Table A1: Case selection from the German Micro-census 2004

|  | Number unweighted | Number weighted* |
| :--- | :---: | :---: |
| Academic partnerships in the German Micro-census | 8,528 | $1,418,422$ |
| 2004 in total | $(100 \%)$ | $(100 \%)$ |
| From these: |  |  |
| $\quad$ - only German-German couples | 7,783 | $1,270,060$ |
|  | $(91.3 \%)$ | $(89.5 \%)$ |
| $\quad$ - only heterosexual couples | 7,748 | $1,264,321$ |
|  | $(90.8 \%)$ | $(89.1 \%)$ |
| $\quad$ - only couples in which women | 4,377 | 713,706 |
| were between 30 and 49 yrs (2004) | $(51.3 \%)$ | $(50.3 \%)$ |
| $\quad$ only couples in which the | 4.308 | 702,462 |
| $\quad$ men were born after 1943 | $(50.5 \%)$ | $(49.5 \%)$ |

[^4]Table A2: Occupational homogeneity and occupational field of the woman in academic couples (only couples in which both partners are employed) (in rounded row percentages)

|  | \% occupational <br> field of female <br> partner <br> (column percent- <br> ages) | Occupational <br> heterogeneous | Occupational <br> homogeneous | Not specified |
| :--- | :---: | :---: | :---: | :---: |
|  | 29 | 74 |  |  |
| sales/office jobs | 13 | 64 | 25 | 1 |
| health | 38 | 71 | 26 | 1 |
| education and teaching | 7 | 49 | 49 | 1 |
| technical jobs | 13 | 66 | 25 | 2 |
| Other fields | $\mathbf{1 0 0}$ | $\mathbf{6 9}$ | $\mathbf{2 9}$ | 9 |
| Total |  |  |  |  |

Case selection: Heterosexual couples, only German citizens, women between 30 and 49 years old, men born after 1943.

Source: Own calculations, German Micro-census 2004, weighted by family projection factor.
Table A3: Presence and age of underage children* and age of the woman in academic couples, 2004 (in rounded column percentages)

|  | Total | $30-39$ yrs old | $40-49$ yrs old |
| :--- | :---: | :---: | :---: |
| No children under 18 | 32 | 35 | 30 |
| Under 3 yrs | 21 | 39 | 5 |
| $3-10$ yrs | 26 | 23 | 30 |
| $11-17$ yrs | 20 | 3 | 35 |
| Total | 100 | 100 | 100 |

Case selection: Heterosexual couples, only German citizens, women between 30 and 49 years old, men born after 1943.

* The Micro-census' category "children" includes biological, adopted, foster and stepchildren insofar as they live together with at least one parent in the household.
Source: Own calculations, German Micro-census 2004, weighted by family projection factor.
Table A4: Female employment and presence and age of underage children in academic couples, 2004 (in rounded row percentages)

|  | Not employed | Job | Prof. occupation full-time | Prof. occupation part-time |
| :--- | :---: | :---: | :---: | :---: |
| No children under 18 | 8 | 22 | 59 | 12 |
| Under 3 yrs | 29 | 17 | 27 | 27 |
| $3-10$ yrs | 25 | 18 | 19 | 38 |
| 11-17 yrs | 13 | 25 | 30 | 32 |
| Total | $\mathbf{1 8}$ | $\mathbf{2 0}$ | $\mathbf{3 6}$ | $\mathbf{2 6}$ |

Case selection: Heterosexual couples, only German citizens, women between 30 and 49 years old, men born after 1943.

* The Micro-census' category "children" includes biological, adopted, foster and stepchildren insofar as they live together with at least one parent in the household.
Source: Own calculations, German Micro-census 2004, weighted by family projection factor.


[^0]:    1 In 1971, 7 percent of the men and less than 2 percent of the West German women held an academic degree.

[^1]:    2 Own calculations based on the Micro-census 2004 (cf. information at Table 1).

[^2]:    4 Research has shown, however, that due to different professional cultures and the availability of alternative career patterns, professions vary in their potential for the achievement of a work/life balance and, thus, the realization of dual careers (for medicine and psychology in Germany, see Hoff et al. 2002; Dettmer \& Hoff 2005).

[^3]:    28 According to a study on German academics resident abroad, for married academics the second most important criterion for returning to Germany is a satisfying job offer for the partner (Backhaus, Ninke \& Over 2002).

[^4]:    * Weighted by family projection factor.

