Labor market segmentation and the protean career: the effects on labor market experience

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1. Introduction

In the recent decennia the labor markets in the Western economies have been undergoing a fundamental change, a change that has also found a reflection in the structure of the contemporary careers. These transformations have been attributed to several conjunct factors, such as the flattening of organizational structures, economic globalization, advances in technology and communication, influx of women on the labor market and growth of the tertiary sector of the economy (Arthur & Rousseau, 1996; Baruch & Bozionelos, 2010; Fuller, 2008).

Most career scholars agree that one of the features of the career transformation is increased career mobility (Arthur & Rousseau, 1996; Briscoe, Hall, & Frautschy DeMuth, 2006; DiPrete, Goux, & Maurin, 2002; see also Rodrigues & Guest, 2010), manifesting itself not only in formative career stages (Topel & Ward, 1992), but throughout the entire career span. Although the degree of mobility varies substantially between countries (Borghans & Golsteyn, 2012; Kovalenko & Mortelmans, 2012), this increase is generally recognized as a challenge for all the actors involved: employers, workers as well as policy makers (Fuller, 2008). The study of career mobility and its consequences in the context of the contemporary labor market becomes essential in the light of these transformations.

While the consequences and covariates of mobility in itself have been studied to a substantial degree, their study in the context of new careers has so far been a limited (even though rapidly growing) research domain. A lot of attention has been paid in the career literature to the concepts of boundaryless and protean careers (Arthur & Rousseau, 1996; Briscoe & Hall, 2006; Hall, 1996; 2004), each appraising the shift in career structure as a positive phenomenon, an adaptation to the changing world (Gerber, Wittekind, Grote, & Staffelbach, 2009). Much less attention has been devoted to the negative consequences of the new career patterns, and to factors that distinguish between more and less desirable career development entailing multiple transitions throughout one's lifetime. Several career scholars have claimed that the disintegration of the stable traditional career entails structural ambivalence for individual workers and for the labor markets in general (Fuller, 2008; King, Burke, & Pemberton, 2005; Van Buren, 2003).

Retirement timing and overall labor market experience are two important covariates of career mobility, relevant both from theoretical and policy perspectives (Johnson, 1993; Light, 2005), being directly pertinent to the issues of ageing population and sustainability of the pension and other welfare systems (Holzmann & Palmer, 2006). In our previous report (Kovalenko & Mortelmans, 2012) we have been focusing on the relationship between career mobility and retirement timing; in this study we proceed to the examination of the relationship between career mobility and overall labor market experience. While the empirical findings are scarce on the subject of the aforementioned relationship, both the existing literature and our own findings indicate that high career mobility may be associated with career discontinuity and therefore with shorter career span in terms of labor market experience years (Kovalenko & Mortelmans, 2012; Light, 2005). In the context of the increasingly mobile labor markets it is therefore essential to understand the potentially negative dynamic between mobility and overall labor market experience; it is even more important to understand the differences in that dynamic for various labor market strata.

We approach this issue in two steps. The first part of our analysis will be aimed at explaining the connection between career mobility and labor market experience, where we will show that this phenomenon can be linked to a socio-economic stratification structure, or more precisely, to the segmentation of the labor market into a primary segment with relatively better jobs (and careers) and a secondary segment with relatively worse jobs.

In the second part of the analysis we examine whether individual career orientation can serve as a coping mechanism that supports successful career transitions. In the context of the contemporary labor market the responsibility for career management is to an increasing degree transferred from organization to individual (Hall, 1996; Seibert, Kraimer, & Crant, 2001), as employers can no longer guarantee employment stability as well as opportunities for the advancement via internal labor markets (DiPrete et al., 2002; Verbruggen, Sels, & Forrier, 2007). Workers must therefore rely on their own skills to navigate their career, bridging multiple transitions that are becoming an inherent part of a modern career.

The protean career orientation (a psychological construct consisting of two related dimensions of self-directedness and value-drivenness (Briscoe et al., 2006)) have been shown to be linked to positive career outcomes in the context of mobile and uncertain labor markets (Briscoe, Henagan, Burton, & Murphy, 2012; De Vos & Segers, 2013; see Verbruggen & Sels, 2008). We explore whether this career orientation can indeed provide a buffer against experiencing undesirable career transitions, and to what extent the effects of both dimensions mentioned differ when considered together with the socio-economic stratificational structure.

It is well known, on the other hand, that most forms of capital that may be required to bridge career transitions with a degree of success—be it social, economic, or career capital (Inkson & Arthur, 2001)—are not distributed equally throughout the entirety of the economically active population (Fuller, 2008; Kalleberg, 2003). One can therefore expect that individuals will be to a strongly varying degree equipped with the skills necessary to cope with the increasing volatility of the contemporary labor markets. This may lead to yet another form of Matthew effect (Merton, 1968), where the long existing stratification of the labor market would be converted and reproduced under the new conditions of the uncertain employment, this time, however, without the protective effect of the traditional social institutions (Standing, 1999). In this study we explore whether the protective aspects of the protean career have differential effects for the more vulnerable segments of the labor market.

Our study makes several contributions both to the theoretical development in career literature and to the domain of public policy. First, it establishes and explains the relationship between career mobility and overall career experience, which has implications in the context of the increasingly mobilizing labor markets. Second, it examines the effects of the protean career orientation, which have been shown to lead to positive career outcomes and thus counter the negative effects of increased mobility. While the value of the self-directedness dimension has been ascertained in this regard, the impact of value-drivenness has been much less documented. Finally, it contributes to the understanding of the interaction effects between career mobility, protean career orientation and labor market segmentation, which has implications for policy measures in regard to vulnerable groups.

2. Theory and previous research

2.1 Labor market segmentation

A theoretical framework that links career mobility with various career outcomes, including those pertinent to overall career duration, is the labor market segmentation (LMS) theory. The LMS theory has emerged in the early seventies from the work by Doeringer & Piore (1971) and in spite of some grounded criticism continues to inform the research on labor market and inequality within it (Dickens & Lang, 1992; Hudson, 2007), including some recent applications to the study of career mobility in the post-Fordist economy (DiPrete et al., 2002).

Its main proposition is that to answer the organizational need for the numerical flexibility the individual working arrangements are divided into more stable core jobs with high organizational attachment, greater job security, good working conditions, promotional opportunities and higher rewards in terms of wages and benefits; and, on the other hand, peripheral jobs with weak organizational ties, poor working conditions, high uncertainty in regard to the future employment, as well as relatively lower wages and little or no benefits (Hudson, 2007; Kalleberg, 2003). This leads to the segmentation of the labor market into two principal distinct sub-divisions, labeled as primary and secondary labor markets, with different sets of rules in regard to hiring and firing, remuneration and career development (C. Tolbert, 1982). The key idea of the labor market segmentation theory is that good (or bad) job characteristics are clustered together with other good (or bad) job characteristics, the former pertaining to the primary labor market and the latter to the secondary (Dickens & Lang, 1992, p. 7; Hudson, 2007). In addition to job characteristics, other socio-economic variables have been associated with the labor market segments, such as ethnic origin (Dickens & Lang, 1992; Hodson & Kaufman, 1982; Van Laer, Verbruggen, & Janssens, 2012) and education (Dickens & Lang, 1992; Kalleberg, Wallace, & Althauser, 1981; Reich, Gordon, & Edwards, 1973; Van Laer et al., 2012).

In accord with the propositions of the LMS theory the transitional careers, developing largely on the external labor market and by definition being relatively frequently interrupted and characterized by lower organizational attachment, tend to pertain to the secondary labor market segments (Fuller, 2008; Mühleisen & Zimmermann, 1994). The same notion is supported both by the standard human capital and the institutional perspectives (Fuller, 2008, p. 160). Firm-specific knowledge has value for the employing organization and serves as capital for internal promotion, while its use outside the organization remains limited. This can be recognized by employers and reflected in wage premium structures diminishing turnover. In the post-war period the loyalty-based psychological contract between employers and workers was institutionalized in the form of the internal labor markets (Fuller, 2008; Mirvis & Hall, 1994). On the other hand, many jobs that did not require specialized skills entailed no incentive for employee retainment, being organized through external labor markets instead (P. Tolbert, 1996). In that context high mobility levels were likely to be a marker of a disprivileged position on the labor market (C. Tolbert, 1982, p. 458).

A substantial body of research connects higher career mobility with both positive and negative outcomes, most notably wage evolution (Fuller, 2008; Le Grand & Tåhlin, 2002; Light, 2005), as well as subjective career success (De Vos & Soens, 2008; Fasang, Geerdes, & Schömann, 2012; Gerber et al., 2009). Several authors have proposed that the net effect of career mobility is contingent on a range of additional factors, such as transition voluntariness, gender, race, career stage or pre-

separation behavior (Fuller, 2008; Gerber et al., 2009; Keith & McWilliams, 1999; Lam, Ng, & Feldman, 2012). Combined with the fact that the relevant risk factors are by definition concentrated in the secondary labor market segment, it is feasible to expect that the context of mobility will be more punishing for careers unfolding largely in that segment, and as consequence, more negative career outcomes including a higher risk for career interruption. Therefore the differential findings in the mobility literature are largely in line with the postulates of the LMS theory. In our analysis we extend that parallel taking overall labor market experience and the risk of career interruption as the variable of interest.

The direct relationship between career mobility in itself and its relation to unemployment chances has not been extensively researched so far. Light (2005) finds empirical support for the thesis outlined above, establishing that high career mobility can be associated with high frequency of involuntary discharges and weaker attachment to the labor force. On the other hand, Mühleisen & Zimmermann (1994) do not find a direct relationship, albeit considering external career mobility alone.

2.2 The protean career

As the processes of career destabilization took place in the recent years, several concepts describing the restructuring of career patterns have emerged. The two most popular *new career* theories, in terms of applicability in the empirical literature, are those of Arthur & Rousseau (1996), introducing the concept of *boundaryless career*, as well as Hall (1996; 2004) with the notion of the *protean career*. The latter will form the focus of our analysis in this report.

The concept of the *protean career* stems in the metaphorical sense from the Greek god Proteus, who could change his shape as the situation demanded (Inkson, 2006). This metaphor reflects the flexibility and adaptability required of the contemporary workers to successfully adjust to changing working circumstances in the increasingly volatile labor markets (Briscoe et al., 2012).

The *protean career* features several characteristics that distinguish it from both the traditional career, as well as other, alternative concepts describing the contemporary career transformations. One of the most important characteristics pertains to the active construction of the career path by the individual, and no longer the organization(Hall, 1996). In this respect the protean career stands in stark contrast with the traditional career, where the latter was managed and driven precisely by the employing organization, which took the responsibility for career development in return for worker's loyalty towards the organization (Baruch, 2004; Sullivan, Carden, & Martin, 1998). This aspect of the protean career reflects therefore an important trend in the modern labor markets, namely the shift of responsibility for one's career away from the organization and towards the individual (Hall, 1996; Seibert et al., 2001).

The protean career entails continuous learning and self-development (Hall & Moss, 1998). It is theorized that instead of the differentiation by life stages (Smart & Peterson, 1997), the contemporary careers can be perceived in (shorter) learning stages, each consistent of exploration, trial, establishment and mastery phases, and characterized by the continuous process of learning and identity changes (Hall, 1996). While learning does not necessarily have to be formal, it remains an essential feature for career flexibility and continuous re-adaptation (Hall, 1996).

In the further development of the protean career notion it has been conceptualized as a combination of two dimensions (Briscoe & Hall, 2006; Briscoe et al., 2006). First, the protean individual is value-driven in the sense that "the person's internal values provide the guidance and measure of success for the individual career". Second, the protean individual is self-directed, taking charge of personal career management, and having the ability to adapt to changing learning and performance requirements. The protean career is translated into the empirical domain using these two dimensions (Briscoe et al., 2006).

The protean career orientation has been researched in relation to career success (Cao, Hirschi, & Deller, 2013; De Vos & Soens, 2008) as well as in regard to the variation of individual career characteristics, including gender, age, education, managerial experience and cultural characteristics (Briscoe et al., 2006; Segers, Inceoglu, Vloeberghs, Bartram, & Henderickx, 2008; Segers, Inceoglu, Vloeberghs, Bartram, & Henderickx, 2010). According to the latter study, respondents with high levels of protean career orientation have a propensity towards higher (managerial) organizational positions, partly due to placing more emphasis on career promotions but also due to the importance of lifelong learning and developmental activities.

Protean career attitudes may therefore provide an effective coping mechanism in the context of higher employment uncertainty (Briscoe et al., 2012), thus enabling the worker to bridge transitions between subsequent employments. First, self-directed career management has been associated with proactive personality and mastery goal orientation, both of which tend to lead to behaviors that enable coping with change (Briscoe et al., 2006; 2012). In turn, proactive career orientation has been shown to be associated with higher likelihood of job search behaviors as well as seeking external support (Brown, Cober, Kane, Levy, & Shalhoop, 2006), as well as objective and subjective career success (Fuller Jr. & Marler, 2009; Seibert et al., 2001).

It has also been established that self-directedness, being one of the protean dimensions, is directly linked to positive career-building behaviors, such as developing relevant social networks, seeking career advice, actively engaging in job search (Briscoe et al., 2012; De Vos & Segers, 2013). Self-directedness is also known to stand in a positive relation with later retirement intentions, mediated by the mentioned set of career-management behaviors and work engagement (De Vos & Segers, 2013). These findings demonstrate that protean career orientation can indeed offer a protective layer in the context of unstable/transitional labor market, where individuals must themselves propel and manage their careers.

Virtually nothing is known whether the effects of the protean career orientation are uniform across the socio-economic strata. Many empirical studies on the *new career* orientations (including protean and boundaryless careers) have been carried out on the samples biased towards particular population groups, such as MBA students (e.g. see Briscoe et al., 2006; Brocklehurst, 2003; Reitman & Schneer, 2003), which implies that lower socio-economic strata, such as those groups with propensity towards employment within the secondary labor market segments, may have remained outside the scope of research attention (Gerber et al., 2009; Kalleberg, 2003).

Protean career is not solely an attitudinal characteristic, it leads to career behaviors that are formative to skills necessary to effective career management, where skills can be considered contingent on both the individual capacity as well as the context (Briscoe et al., 2012, p. 309).

Therefore a protean orientation in one context may have a different dynamic than in the other (idem). Fuller (2008) also supports the idea of the context contingency, stating that the erosion of the traditional employment and the consequences of employer changes become increasingly unequal across socio-economic strata (also see Kalleberg, 2003). It is therefore important to advance our understanding of the differential effects of mobility for various labor market strata in relation to labor market outcomes.

3. Outcome variables and hypotheses

Two outcome variables are of interest in our analysis, namely the overall labor market experience and career continuity. The choice of both variables is driven by their relevance to public policy, namely in the context of stimulating longer careers and reducing unemployment (cfr. Pact 2020[1]). In addition, we aim to provide a more elaborate explanation of the negative relationship between career mobility and overall labor market experience we have found in our previous study pertaining to career mobility and retirement timing (Kovalenko & Mortelmans, 2012). The labor market experience variable is interpreted in the context of this study as the number of years actively spent on the labor market, in line with both motivational aspects (see also Ackum, 1991; Keith & McWilliams, 1997).

Overall labor market experience is influenced by three factors: timing of the labor market entry (to a large degree being by the initial educational track), employment interruptions (e.g. unemployment, inactivity or disability) and retirement timing. The latter factor is only marginally relevant to our study, due to the age composition of the sample at hand: only 8.7% of the respondents were retired at the survey moment. As consequence, career continuity, being defined in our study as the degree to which a career is interrupted by one of the three aforementioned non-employment statuses, is a measure closely related to the overall career experience (cfr. Hayward, Grady, Hardy, & Sommers, 1989). The theoretical predictions in regard to career continuity can therefore be (with some qualifications) translated to the overall labor market experience.

Based on the theoretical considerations in regard to the LMS theory and the protean career theory outlined hereinabove we can hypothesize that (1) career mobility and career continuity will be related negatively due to the concentration of the risk factors in the secondary labor market segment; thus explaining the negative relationship between career mobility and labor market experience. In addition, (2) protean career orientation can potentially insulate the workers from negative career transitions, thus increasing the degree of career continuity and, as consequence, overall labor market experience. Finally, (3) we could also expect that the effects of the protean career dimensions will interact with the labor market segmentation, considering that education—being an integral component of a protean career—is known to yield differential returns depending on the labor market segment (Hodson & Kaufman, 1982; Hudson, 2007).

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[1] http://www.vlaandereninactie.be/.

4. Data and Methods

4.1 Data and sample

The data for our analysis originate from the survey *Careers in Flanders*, carried out under the auspices of *Steunpunt Werk en Sociale Economie*. The sample consists of 1518 respondents, of which 1386 have remained in the analysis (see below for selection criteria). The gender distribution is 49% men, and 51% women. 16.6% are 18-29 years of age, 17% are 30-39 years of age, 20.5% are 40-49 years of age and 45.7% are 50-64 years of age, the latter age category was oversampled due to the specific policy relevance of that group. Post-stratification weights are used to adjust the gender and age distribution to that of the general population in Belgium. The survey was specifically focused on various job- and career-related aspects of individual respondents, and included a vast array of questions on the corresponding attitudes and behaviors. Career history was recorded retrospectively for the 10-year period between 2001 and 2011.

4.2 Methods

4.2.1 Measurements

Endogenous variables

The variable to be explained in our analysis is the number of years that the respondent has spent in (self-)employment, the overall labor market experience. That number is always equal or smaller than the total number of years spent on the labor market, the latter including inactive statuses, namely unemployment, inactivity and disability.

Career continuity is operationalized as employment ratio, calculated as a ratio of months spent in employment during the 10-year period of measurement to the sum of months in employment and inactivity or unemployment (thus treating student, disabled and retired statuses as neutral). The value belongs to the interval [0,1], ranging from no employment at all to no unemployment/inactivity at all.

Exogenous variables

Education is an ordered categorical variable with four levels, referring respectively to (1) having no diploma, (2) having a diploma lower education (*lager onderwijs*), (3) having a diploma secondary education (*lager of hoger secundair onderwijs*) and (4) diploma higher education (*hoger onderwijs*). The last category serves as reference in the models presented below.

Number of statuses expresses the number of states through which the respondent has transitioned in the 10-year period prior to the measurement moment (starting in January 2001). Possible statuses include work, unemployment, inactivity, education (being a student) and retirement. Inactivity differs from unemployment in that no attempts to find a job are undertaken in the former status. Different jobs and positions are counted separately, thus including external and internal transitions in relation to the employing organization. In the context of linear regression this is identical to career mobility expressed as a number of transition in the observation period.

Career satisfaction is a single item scale with ten values, ranging from low career satisfaction (1) to high (10).

Self-directedness and value-drivenness as the two dimensions of the protean career are measured based on the Likert scales proposed by Briscoe et al. (2006). On the dimension of self-directedness the respondents indicated to what extent they see themselves as being responsible for managing their career (e.g. "I am responsible for my success or failure in my career"). In regard to the value-drivenness the respondents indicated to which extent their careers are driven by their own values rather than by those of their employing organization (e.g. "What I think about what is right in my career is more important to me than what my company thinks"). For the self-directedness subscale the Cronbach's alpha value of 0.898 has been found, the respective value for the value-drivenness subscale being 0.869. To use the respective measurements in a regression context, we calculate a mean value for each subscale per respondent.

Career-oriented education is a dichotomous variable indicating whether respondent has participated in an educational activity in the last 5 years prior to the measurement, on the condition that the education in question was related to their current work and/or future career.

Function level indicates what in what kind of function respondent was employed: floor worker (*uitvoerend personeel*), administrative support (*administratief ondersteunend personeel*), professional staff (*professioneel medewerker, e.g. consultant or expert*), middle management (*middenkader*), senior management, top management.

Voluntariness of the last transition is a single Likert item, referring to the extent in which last career transition (between any of the career statuses mentioned above) was initiated according to the will of the respondent.

Promotional trend is measured by the index averaged across all applicable transitions in the measurement period, where lower values correspond to demotion and higher to promotion.

National origin is measured by a dichotomous variable denoting whether the respondent has at least one allochthonous parent.

Gender, family income and age are self-explanatory.

5. Results

5.1 Exploring the career data

5.1.1 Career transitions

In this section we provide a descriptive analysis of the relevant variables. Considering the focus of our study, of particular interest are the characteristics of career transitions, the relationship of labor market experience with common socio-demographic characteristics, as well as the connection between the two. The following table presents the average number of transitions per gender and age category:

Gender	Age	Mean transitions	N
Men	18-29	1.85	122
	30-39	1.79	128
	40-49	1.19	156
	50-64	0.99	339
Women	18-29	2.15	130
	30-39	2.65	131
	40-49	1.16	156
	50-64	0.82	356

Table 1.   Average number of career transitions per gender and age

Both for men and women we see that career mobility decreases with age, in accord with the previous findings (Light & McGarry, 1998; Topel & Ward, 1992). One noteworthy exception are women aged between 30 and 39, who on the average have a slightly higher number of transitions comparing to their younger counterparts in the age category between 18 and 29. The difference stems from a somewhat higher number of between-job transitions in the former category, suggesting the initial career phases for women can be slightly less continuous in terms of employment, potentially due to family reasons.

In the following figure we present the distribution of the number of statuses per age category.
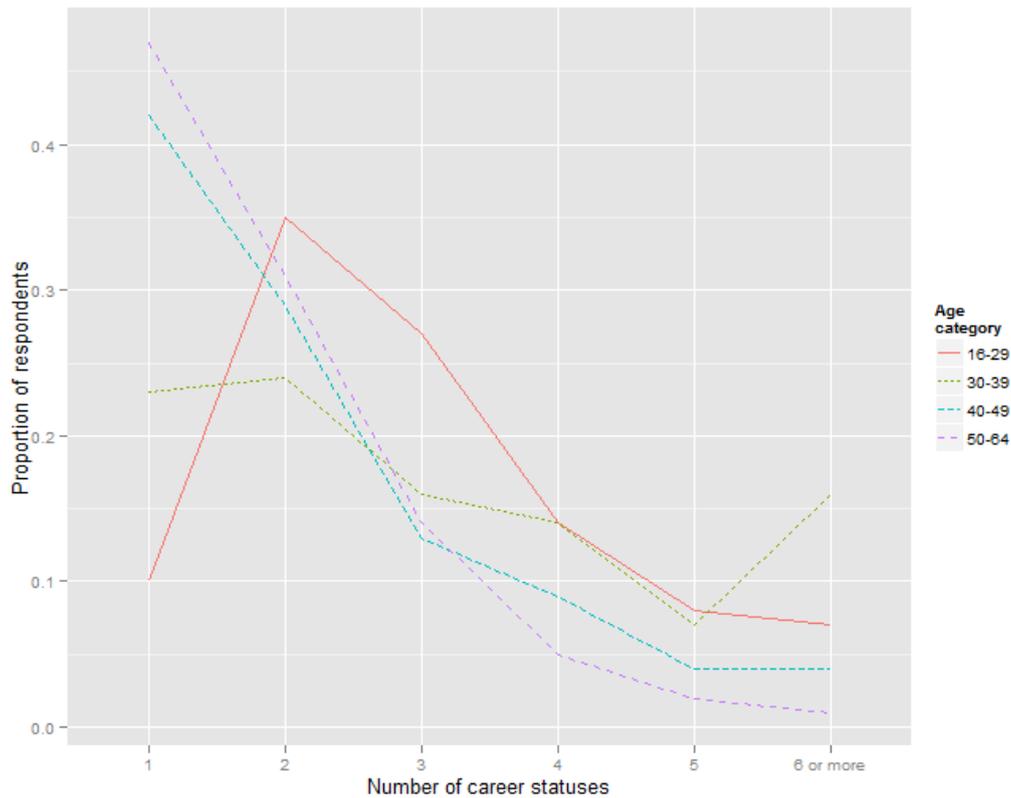
Figure 1. Career mobility per age category

The figure above demonstrates the decrease of mobility with age, plotting the proportion of respondents with a certain number of statuses. Each line represents an age category. Almost half of the respondents in the two highest age categories had but a single status throughout the 10-year measurement period, meaning that they have not experienced any transitions at that time. About one third of the respondents in these age categories have experienced a single transition. The respondents in the second age category (30-39) have a more flat transition profile. Only about 23% of the respondents in that group have remained in the same status throughout the measurement period, and approximately the same share of that group has experienced a single transition — much less than any other age group. On the other hand, this age category has higher proportions in subsequent status values. The transition profile of the youngest age category peaks sharply around one and two transitions, and then joins the general trend. This implies that the youngest respondents are second in terms of overall mobility, the highest group being those in their thirties. Of course this is due to the fact that younger respondents have spent a large proportion of the measurement period in the educational system.

5.1.2 Career continuity and labor market experience

In this section we provide some descriptive data on our outcome variable, namely labor market experience. Labor market experience, expressed as the number of years spent in (self-) employment, is inseparably linked to the chance of experiencing spells spent outside employment, as it is arguably the most important factor influencing labor market experience, aside from chronological age and the time spent in the educational trajectory. Therefore, we pay attention to both indicators. The

following figure demonstrates the relationship between labor market experience and age, when considered separately for men and women:
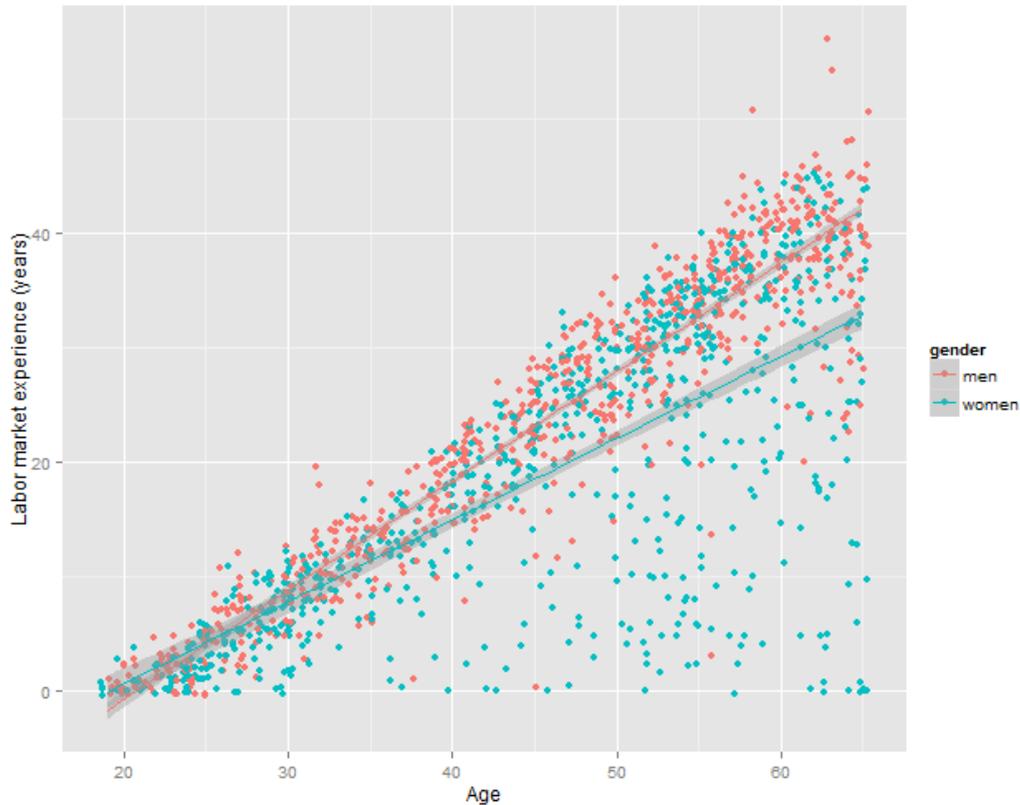
Figure 2.   Age and labor market experience per gender

As expected, the plot demonstrates a semi-linear relationship between age and labor market experience. The lower right quadrant of the plot contains cases for which the accumulated labor market experience is lower than the general trend. We can observe that with minor exceptions the quadrant represents women's careers, likely to correspond to the "inactive" career type which we have discerned previously (Kovalenko & Mortelmans, 2012).

Table 2 indicates the proportion of the sample which has experienced at least one unemployment or inactivity spell during the 10-year measurement period, i.e. between 2001 and 2011:

Spell duration	% unemployed	N	% inactive	N
> 0 months	2.17	33	0.46	7
> 6 months	2.04	31	0.46	7
> 12 months	1.91	29	0.66	10
> 24 months	6.06	92	6.98	106
Total	12.18	185	8.56	130

Table 2.   Proportion of the sample with an observed inactivity or unemployment spell

The table above shows that about 20% of the sample have experienced a period of non-employment in their career during the 10-year measurement period. For the majority of the respondents the non-employment spell in question was of the long-term nature. About 13% of the sample have spent more than two years either in unemployment or inactivity. For about 5% of the sample this period was shorter than one year.

5.2 Labor market segmentation

For the further analysis we remove those respondents from the sample who have remained in a single status of inactivity, unemployment or disability throughout the entire measurement period from 2001 to 2011. In other words, those who had no career related transitions during that period and they have remained outside the labor market. The argument to do so is that this group may show a different career dynamic than the rest of the sample, and including them in the analysis would mask any existing relationships with career transitionality for the group that is at least marginally active on the labor market. For example, one of the groups excluded are women in the highest age category who remain inactive. Another excluded group consists of long-term unemployed individuals. While in itself this group is relevant for the analysis, the 10-year window of measurement is too small to capture the mobility dynamic of this group. In addition, the group contains but a small number of individuals (N = 21). An additional reason for this is to maintain methodological compatibility with the *Sharelife* analysis, which serves as a departure point for the current study (see Appendix I).

As we have mentioned previously, the classic labor market segmentation theory generally views high career mobility as a negative phenomenon that reflects the instability (discontinuity) of careers developing on the external labor markets. Employing organizations retain core employees with high levels of firm-specific knowledge, while the employment of the periphery workers is a subject of long- and short-term economic fluctuations experienced by the organization (Kalleberg, 2003). In this line of reasoning careers with high levels of external mobility should be more at risk for career interruptions (measured as spells of inactivity or unemployment in our case) and as consequence potentially shorter active career span.

Our data support that view to a certain degree. The following figure represents the relationship between the number of career statuses in the measurement period on one hand, and the employment ratio and labor market experience on the other.
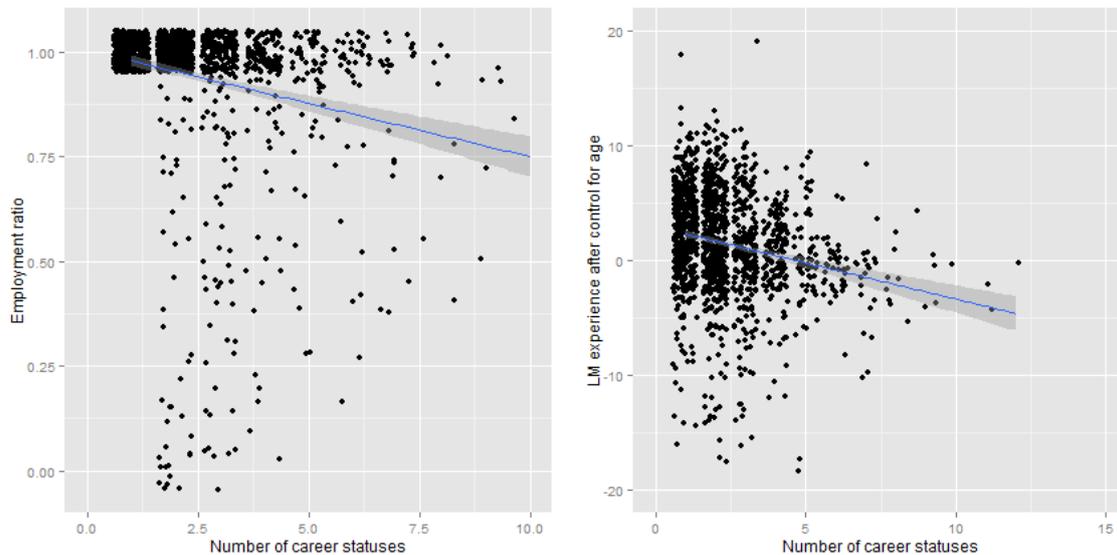
Figure 3.   The relationship between employment ratio (left), career length controlled for age (right) and career mobility

This graph on the left demonstrates a negative relationship between career mobility and career continuity. On the y-axis the employment ratio is plotted, whereas on the x-axis—the number of career statuses. For the majority of respondents the value of employment ratio is 1, which means they were employed throughout the entire measurement period from 2001 to 2011. About 25% of the sample have an employment ratio smaller than 1, hence for the sample in general there is a negative relationship between the number of career statuses in the 10-year career sequence and the continuity of employment. It must be clearly stated that this does not imply a direct causal relationship between these two variables. In the subsequent analysis we argue that this relationship is rather the result of the labor market segmentation, which influences both career continuity and career mobility. The relationship between employment ratio and career mobility is confirmed with a regression controlling for age, gender and education:

	Estimate	Std. Error	t value	Pr(>|t|)
Career statuses	-0.023	0.003	-7.884	0.000
Age	0.001	0.000	2.615	0.009
Gender (F)	-0.040	0.010	-4.086	0.000
Education: none	-0.178	0.036	-4.934	0.000
Education: lower	-0.088	0.021	-4.184	0.000
Education: secondary	-0.049	0.010	-4.719	0.000
(Intercept)	1.008	0.023	44.022	0.000

R^2 = 0.10, N = 1352

Table 3.   Linear regression of employment ratio on career mobility, age, gender and education

The coefficient of -0.023 corresponds to the unemployment period of almost three months per each career transition in linear terms.

On the right graph in Figure 3 a relationship is shown between the total labor market experience and the number of career statuses. Since age is a very strong predictor of the labor market experience, we have removed its effects to render the relationship between the variables in the plot. Here too we see that an increase in the number of transitions is associated with lower labor market experience. Note that the scatterplots in both graphs are slightly jittered to reveal the density of cases in the most common plot areas.

Having explored the relationships between career mobility, career continuity and labor market experience, we turn to another postulate of the labor market segmentation theory, namely that of 'clustering' of good and bad career characteristics together. In order to test that postulate, we distinguish between two groups: on one hand respondents who have had continuous career during the 10-year measurement period, and those who have experienced at least one career interruption due to a spell of unemployment, disability or inactivity. Figure 4 shows the resulting career clusters.
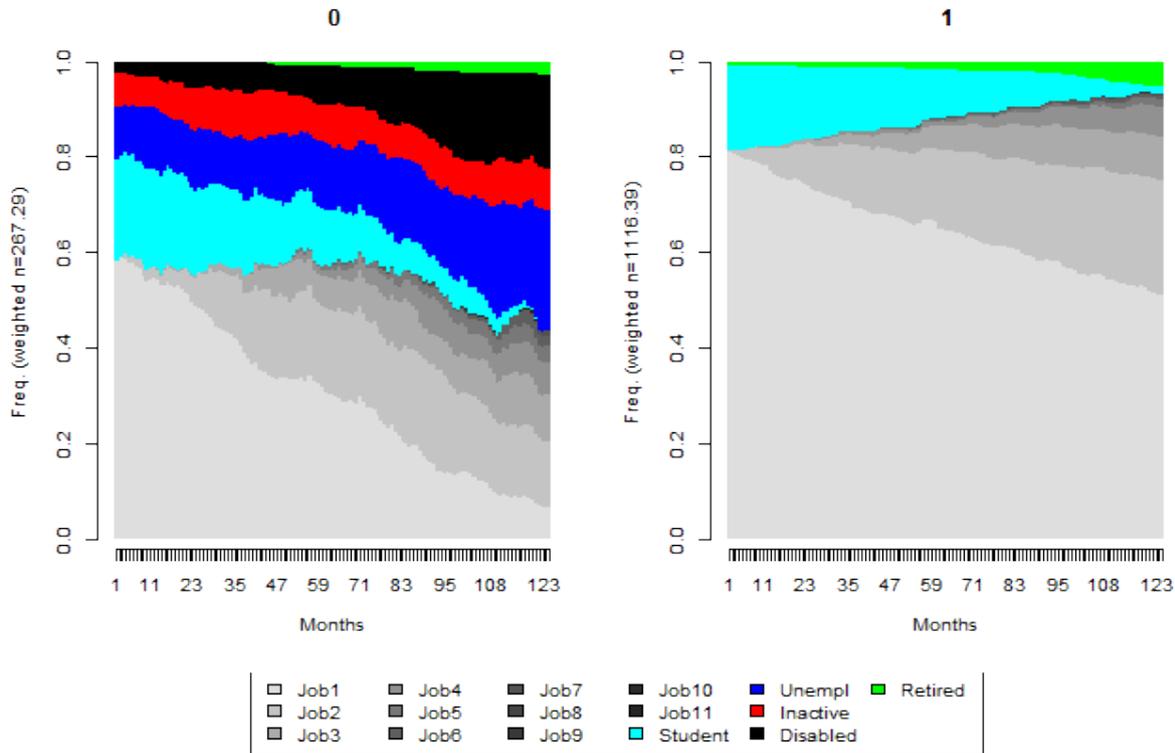
Figure 4.   Interrupted (left) and continuous careers (right): distribution of career statuses in the measurement period

By definition the plot with interrupted careers (left) contains all non-employment statuses. The proportions of the retirement and education statuses are approximately the same in both groups. Based on the angle of job-to-job transitions we can expect that the interrupted career cluster will have higher career mobility. A steeper angle on a status distribution graph implies that the same proportion of the respondents will change a status sooner in the interrupted cluster than in the continuous cluster. In what follows we will test that proposition statistically.

The labor market segmentation theory predicts higher mobility (and discontinuity) in the secondary segment. On one hand we have already (tentatively) established that higher mobility is related to higher chance of career discontinuity and lower labor market experience. In order to examine whether our data further support the predictions of the LMS theory, we determine whether the interrupted and continuous career groups exhibit the expected "clustering" of positive and negative characteristics, thus suggesting a consistent segmentation. In Table 4 we present logistic regression models, which describe the relationship of several work- and career- related indicators with the membership in the interrupted and continuous career group (coded 0 and 1 respectively).

The logistic regression models presented in Table 4 fully support the notion of the clustering of different work-related and socio-economic characteristics that is consistent with the LMS theory predictions. The coefficients in the table are lambda-parameters associated with the respective (additive) logistic models, and can exponentiated in order to obtain the odds ratios for the determinants involved. For instance, the lambda-coefficient for the number of career statuses -0.68 is converted to an odds ratio of $e^{-0.68} = 0.51$. This implies that for a one unit increase in the number of career statuses, the odds of belonging to the group of continuous careers (versus belonging to the

group of interrupted careers) increase by the factor of 0.51, or, to provide a more intuitive interpretation, decrease by the factor of 1/0.51 = 1.97.

In the similar fashion, the odds of belonging to the group of continuous careers:

• increases by the factor of 1.15 for a unit increase in career satisfaction
• increases by the factor of 1.36 for a unit increase in function level
• increases by the factor of 1.95 for a unit increase in promotion index
• increases by the factor of 1.3 if the respondent had participated in a career-related education in the recent past
• decreases by the factor of 2.6 in the case of having at least one allochthonous parent
• increases by the factor of 1.17 for a unit increase in family income

These models do not automatically imply causation, showing instead the association between various factors that can be used to indicate position in relation to the labor market segments, as well as related risk factors. It follows from these results that *for all factors reviewed simultaneously*, the position of the continuous career group is more beneficial than that of the interrupted career group. It is also important to note that the definition of the groups in question do not necessarily reflect the 'objective' division into primary and secondary segments, as (1) the literature on the subject suggests the existence of multiple segments instead of a simple dichotomy, and (2) multiple ways to distinguish between labor market segments have been suggested (Hudson, 2007). Nevertheless, these results strongly suggest the existence of a stratificational structure, which in itself is linked to the degree of career mobility. Higher career mobility is on the average associated with the secondary labor market segment, which also carries a higher risk of career interruption and, as consequence, lower overall labor market experience. This dynamic can provide an explanatory basis for the relationship between the hypertransitional career type and lower labor market experience, which we have previously found for most European countries including Belgium (Kovalenko & Mortelmans, 2012).

				Dependent variable:					
				Continuous career group membership					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Number of career statuses		−0.679*** (0.054)							
Career satisfaction			0.142*** (0.055)						
Function level				0.304*** (0.109)					
Promotions					0.667** (0.269)				
Career-oriented education						0.261* (0.146)			
Allochthonous parent							−0.956*** (0.188)		
Voluntariness last transition								−0.033 (0.046)	
Family income									0.157*** (0.024)
Age	0.023*** (0.005)	−0.002 (0.006)	0.041*** (0.008)	0.028*** (0.008)	0.026** (0.012)	0.024*** (0.005)	0.021*** (0.005)	0.030** (0.014)	0.023*** (0.006)
Gender(F)	−0.564*** (0.142)	−0.454*** (0.156)	−0.574*** (0.196)	−0.482** (0.199)	−0.431 (0.268)	−0.552*** (0.142)	−0.574*** (0.144)	−0.563* (0.313)	−0.503*** (0.150)
Education: none	−2.035*** (0.435)	−2.470*** (0.477)	−0.397 (0.822)	−0.323 (0.821)	−1.020 (1.267)	−1.921*** (0.440)	−1.765*** (0.454)	−1.474 (1.300)	−1.582*** (0.472)
Education: lower	−1.286*** (0.297)	−1.406*** (0.327)	−0.761* (0.461)	−0.526 (0.505)	−0.595 (0.711)	−1.174*** (0.303)	−1.189*** (0.303)	−0.012 (1.083)	−0.776** (0.323)
Education: secondary	−0.810*** (0.167)	−0.996*** (0.189)	−0.346* (0.210)	−0.107 (0.230)	−0.054 (0.278)	−0.753*** (0.170)	−0.790*** (0.168)	−0.339 (0.326)	−0.499*** (0.179)
Constant	1.346*** (0.278)	4.421*** (0.406)	−0.100 (0.543)	0.656 (0.434)	−0.397 (0.800)	1.122*** (0.304)	1.548*** (0.285)	1.666*** (0.620)	−1.135** (0.467)
Observations	1,379	1,379	1,176	1,045	447	1,379	1,379	496	1,283
Log likelihood	−647.800	−542.400	−382.200	−370.40	−188.20	−646.200	−635.700	−158.80	−581.600
Akaike Inf. Crit.	1,308.000	1,099.000	778.300	754.800	390.500	1,306.000	1,285.000	331.700	1,177.000

Note: *p<0.1; **p<0.05; ***p<0.01

Table 4. Logistic regressions of continuous career group membership

It should also be noted that labor market experience differs substantially between both groups as well, being lower in the interrupted group. Due to the issue of collinearity (with age) it cannot be modeled in the similar manner. Instead, that difference will be belabored below, in the models considering the differential effects between the groups.

We can now reconsider the relationship between the employment ratio and the labor market experience on one hand, and career mobility on the other; this time making a distinction between the interrupted and continuous career groups. Figure 5 presents that distinction.
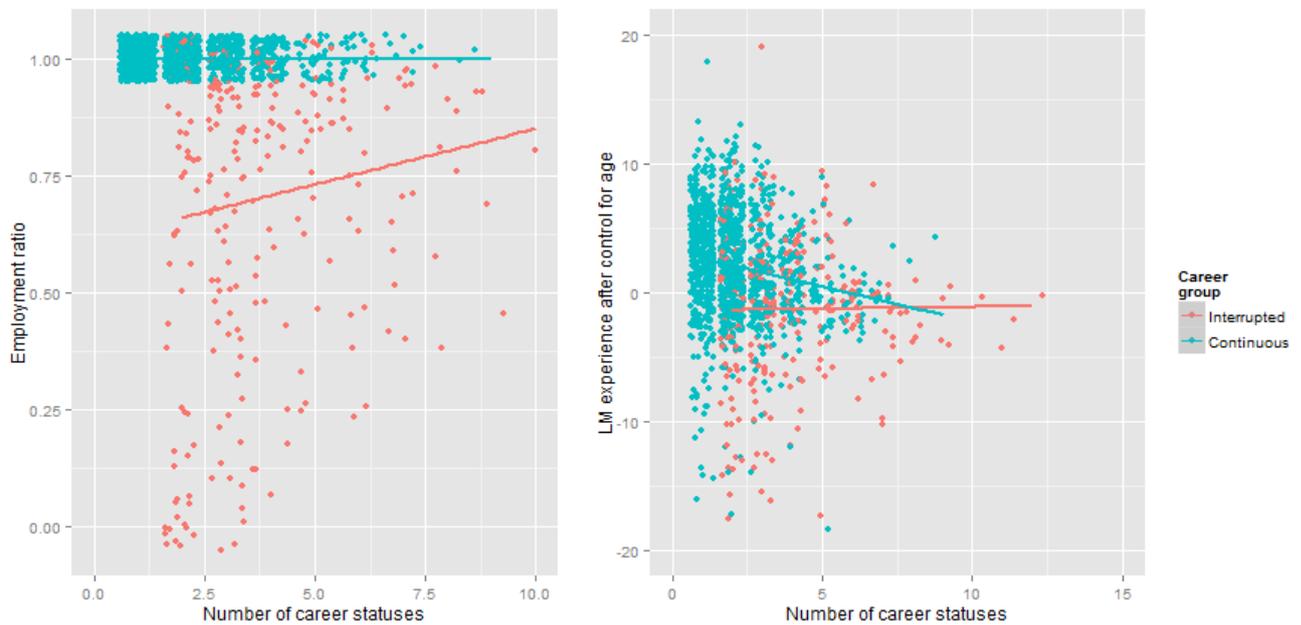
Figure 5.   The relationship between career continuity and mobility (per group)

The plot on the left in Figure 5 shows that there is no relationship between the employment ratio and the number of career statuses for the continuous career group, which follows from its definition—that group does not contain any other values than 1. The same relationship for the interrupted career group is now positive, provided we model it by a linear regression. An increase in career mobility is thus associated with a decrease in unemployment[2].

The plot on the right in Figure 5 shows that while in the interrupted group there is no significant effect of career mobility on the number of years actively spent on the labor market, a negative relationship exists for the continuous group. We explore this relationship in more elaborate models below, controlling for additional factors.

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[2]It should be noted that a cubic polynomial function provides a somewhat better fit than the linear regression. Under the latter model the increase in career mobility leads to increase in the employment ratio up until approximately five transitions, whereas the subsequent increase has little or no effect. It is nevertheless feasible to retain the linear model for the reasons of parsimony.

6. The protean career orientation

In the previous section we have examined the phenomenon of stratification of the careers in the analysis. In what follows we inspect (1) whether the protean career orientation could be seen as a coping mechanism for navigating uncertain employment environments and (2) whether these effects interact with the stratificational structure discerned previously. In order to do so we examine how the continuous and interrupted career groups differ in respect to both protean career orientation dimensions, self-directedness and value-drivenness. Subsequently we model how both these dimensions influence the labor market experience, considering the segmentation we have discerned above. Table 5 presents logistic regression models similar to those in Table 4, estimating the differences in protean career dimensions between both groups:

	(1)		(2)	
	Estimate	Pr(>|z|)	Estimate	Pr(>|z|)
Intercept	-1.549	0.009	0.678	0.148
Self-directedness	0.695	0.000		
Value-drivenness			0.198	0.058
Age	0.025	0.000	0.021	0.000
Gender (F)	-0.498	0.001	-0.503	0.001
Education: none	-1.846	0.000	-1.982	0.000
Education: lower	-1.107	0.000	-1.191	0.000
Education: secondary	-0.742	0.000	-0.805	0.000
N (AIC)	1352 (1246.7)		1345 (1268.4)	

Table 5.   Logistic regression of career group membership on protean career dimensions

The models in Table 5 show that even after controlling for basic socio-demographic characteristics, self-directedness differs significantly between both groups, being higher in the continuous career group. A unit increase in self-directedness corresponds to the odds of belonging to the continuous career group (versus belonging to the interrupted career group) increasing by the factor of 2. The statistical significance of the value-drivenness coefficient is marginal, namely 0.06. If one is to reject the independence hypothesis based on that threshold, the difference in one unit on the value-drivenness scale corresponds to the increase in odds of belonging to the continuous group by 1.22. It is useful to note that without control factors the difference on value-drivenness between both groups is well significant.

Table 6 presents three linear regressions of the labor market experience: one for each career group and one for both groups together[3]. Voluntariness of the last transition was excluded from the model on the basis of empirical insignificance (cfr. Appendix I).

In the first instance we discuss the subgroup models, and then turn to the model estimated on the entire sample. When the models run for the groups separately are compared, we see that career mobility has no effect on career length in the interrupted group, but has a negative effect in the continuous group. This difference was visualized in Figure 5, and it is retained after controlling for other factors in the model. Age remains a strong predictor in both models, while gender expectedly has a negative effect on the labor market experience. That effect is much larger in the interrupted group, amounting to the difference of -3.33 years in comparison with men. Value-drivenness has a negative effect in the interrupted group alone, while self-directedness has a positive effect in the continuous career group. In the interrupted group education has no effect, while the labor market experience for those with lower and secondary education degrees is higher than for those with higher education. The reasoning behind this is that lower educational levels on the average imply earlier entry into the labor market. Neither group enjoys the effects of (additional) career-related education. Even though in the interrupted group the respective effect is positive, it is not significant. The function level has no effect on the labor market experience in the interrupted career group, while in the continuous group the respondents with jobs belonging to the categories of administrative support, professional staff or middle management have lower labor market experience than floor workers.

The common model accounts for the inter-group differences in another manner, namely by including the group membership variable, as well as interaction effects between the group membership on one hand and career mobility and protean career dimensions on the other. In this model the main effect of career mobility is positive and significant, when all other factors are kept constant. However, this must be seen in conjunction with its interaction effect with the career grouping variable. For the continuous career group the positive main effect is counteracted by the negative interaction effect, resulting in a negative overall association for that group. The overall effect of career mobility for the interrupted group on labor market experience is positive in the full model. As expected, the membership in the continuous group has a positive effect of 5.72 years, when controlled for the other factors, whereas the net effect of gender is -1.25 (women in relation to men).

Even though we have established that value-drivenness is higher for the continuous career group, this factor in itself influences the number of years actively spent on the labor market. Here too we need to consider the additional effect of its interaction with the career group variable. For the continuous group the negative main effect of value-drivenness is almost fully counteracted by the interaction term, implying that in that group the overall effect is minor, whereas in the interrupted career group the unit increase on the value-drivenness scale corresponds to more than 1.5 year decrease in labor market experience, all other factors being equal.

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[3]Function level was not measured for the retired respondents, who are then excluded as incomplete cases. The results are therefore representative for the working population.

	Dependent variable:		
	Labor market experience		
	(1)	(2)	(3)
Career transitions	0.378	−0.169*	0.513***
	(0.265)	(0.089)	(0.162)
Career group			5.721**
			(2.661)
Age	0.812***	0.984***	0.967***
	(0.050)	(0.010)	(0.010)
Gender (F)	−3.327***	−0.966***	−1.254***
	(1.026)	(0.232)	(0.238)
Value-drivenness	−1.469*	−0.228	−1.605***
	(0.798)	(0.189)	(0.535)
Self-directedness	0.694	0.402*	1.570**
	(1.047)	(0.232)	(0.682)
Education: none	−1.014	1.529	1.250
	(3.716)	(1.066)	(1.054)
Education: lower	2.571	3.376***	3.314***
	(2.521)	(0.639)	(0.649)
Education: secondary	1.869	2.408***	2.320***
	(1.149)	(0.256)	(0.264)
Career-oriented education	0.349	−0.127	−0.059
	(1.045)	(0.227)	(0.234)
Administrative support	0.835	−0.486	−0.287
	(1.366)	(0.344)	(0.349)
Professional staff	0.375	−1.051***	−0.806**
	(1.883)	(0.347)	(0.365)
Middle management	0.388	−0.862**	−0.812**
	(3.060)	(0.361)	(0.386)
Senior management	1.299	−1.365*	−1.169
	(4.912)	(0.752)	(0.798)
Top management	−0.822	−0.206	−0.243
	(5.800)	(0.754)	(0.809)
Group*Transitions			−0.738***
			(0.187)
Group*Value			1.388**
			(0.573)
Group*Self			−1.175
			(0.726)
Constant	−16.230***	−21.880***	−26.700***
	(4.841)	(1.021)	(2.556)
Observations	124	894	1,018
R^2	0.745	0.934	0.920
Adjusted R^2	0.712	0.933	0.919
Residual Std. Error	5.045(*df*=109)	3.189(*df*=879)	3.500(*df*=999)
F statistic	22.770*** (*df*=14;109)	887.100*** (*df*=14;879)	638.000*** (*df*=18;999)

Note: *p<0.1; **p<0.05; ***p<0.01

Table 6. Linear regression models of labor market experience

Self-directedness, on the other hand, has a positive effect of 1.57, and its interaction term is statistically insignificant, implying that the positive influence of self-directedness on the duration of active career remains uniformly positive across both continuous and interrupted career groups.

The effects of education are similar to those discussed above; lower educational levels lead to higher labor market experience for the reasons of earlier timing of entering the labor market. Career-oriented education that is not a part of the initial educational trajectory has no effect on the labor market experience. Finally, the respondents with jobs belonging to the categories of administrative support and professional staff spent less active years on the labor market in comparison with floor workers, all other factors held constant.

7. Subgroup analysis

In the following section we deepen the analysis of the protean career dimensions by looking at specific subgroups within the interrupted and continuous career groups. The goal of this part of the analysis is to determine the differences in the distribution of both self-directedness and value-drivenness, thus considering the role which could be played by the protean career orientations in each case.

7.1 Returning careers: short-term unemployment

The first subgroup is a part of the interrupted career group. Careers in this subgroup are, of course, discontinuous as well, but they are further qualified by the property of having but a short-term unemployment spell, with the duration of no longer than 12 months. In other words, the respondents in these careers went briefly into unemployment, but have managed to return to the active state afterwards. It is that event of the return to employment that we are interested in from the perspective of the protean career orientation.

After defining the returning career subgroup, we end up with three different subgroups:

1. Interrupted careers: no return from unemployment within 12 months
2. Interrupted careers: return from unemployment within 12 months
3. Continuous careers

For each of these groups we consider the distribution of self-directedness and value-drivenness. These distributions are presented in Figure 6 as density function plots.
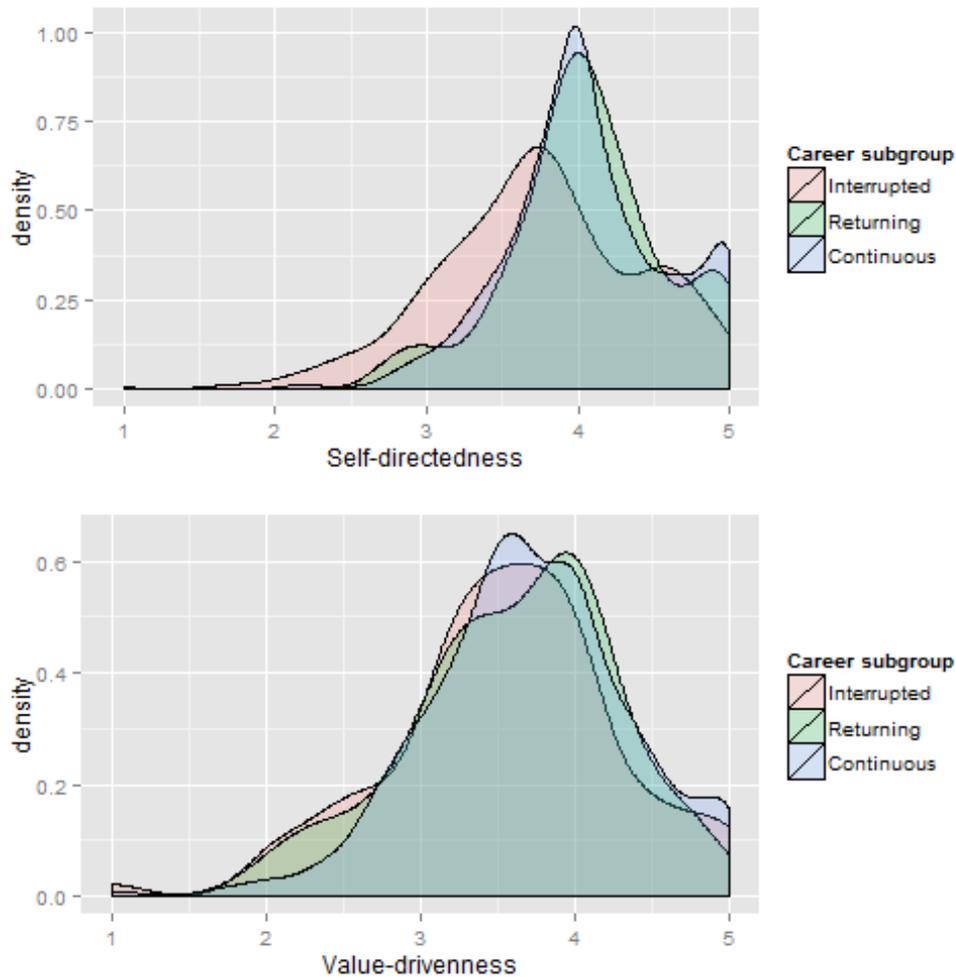
Figure 6.   Distribution of self-directedness (above) and value-drivenness (below)

We can suspect based on the upper plot that the self-directedness of the returning careers will be the same as that that of the continuous group. Self-directedness of the interrupted careers that do not belong to the returning group is significantly lower than those of both returning and continuous careers. We can examine whether the distributions are statistically different using the Kolmogorov-Smirnov test. Comparing returning careers with interrupted (and not returning) careers, the p-value of the Kolmogorov-Smirnov test is 0.00, and comparing returning careers with continuous careers this value equals 1.00. The comparison between the interrupted (and not returning) and continuous groups also shows significant differences at p=0.00. Mean self-directedness in the interrupted groups is 3.76, 4.07 in the returning group and 4.06 for the continuous group. The significance of t-tests for mean differences reveals the same logic. This means that those respondents who have successfully returned to the labor market after a short (less than 12 months) period of unemployment, do not differ in respect to self-directedness from those who never had career interruptions. On the other hand, those with interrupted careers who do not belong to the returning group score significantly lower on self-directedness than both returning and continuous career respondents. The same conclusions can be drawn after controlling for gender, age and education.

None of the three groups differs from the others in respect to value-drivenness, as confirmed by the respective Kolmogorov-Smirnov tests. This finding is interesting considering the negative association of the labor market experience with value-drivenness that we have discussed above.

7.2 Highly transitional careers in both interrupted and continuous groups

In this section we focus on transitional careers in both interrupted and continuous groups. In both groups we select careers with three or more transitions in the 10-year measurement period. That threshold corresponds to the upper quintile of the career mobility distribution for the sample. Subsequently we examine how protean career dimensions are distributed in these groups, thus highlighting the distinctions between movers who can successfully construct their career trajectories in the sense of having no interruptions between jobs, and those for whom job changes present a difficulty in terms of continuity. Table 7 presents the results of the respective models, controlling for age, gender and education. Each group is compared with the remainder of the sample.

| | Dependent variable: membership in transitional career subgroup | | | |
| | Continuous group | | Interrupted group | |
	(1)	(2)	(3)	(4)
Self-directedness	0.474***		−0.325*	
	(0.168)		(0.178)	
Value-drivenness		0.293**		−0.158
		(0.135)		(0.145)
Age	−0.042***	−0.043***	−0.042***	−0.042***
	(0.007)	(0.007)	(0.008)	(0.008)
Gender (F)	0.137	0.109	0.511**	0.497**
	(0.179)	(0.178)	(0.203)	(0.204)
Education: none	−1.021	−1.140	0.597	0.657
	(1.040)	(1.038)	(0.667)	(0.664)
Education: lower	−0.643	−0.657	0.514	0.547
	(0.540)	(0.540)	(0.479)	(0.479)
Education: secondary	−0.289	−0.299	0.358	0.369*
	(0.183)	(0.183)	(0.222)	(0.222)
Constant	−2.141***	−1.193**	0.146	−0.588
	(0.776)	(0.595)	(0.829)	(0.639)
Observations	1,352	1,345	1,352	1,345
Log likelihood	−447.800	−450.600	−374.500	−374.500
Akaike Inf. Crit.	909.500	915.100	763.000	762.900

Note: $^{*}p<0.1$; $^{**}p<0.05$; $^{***}p<0.01$

Table 7. Logistic regression of transitional career group membership on protean dimensions

From models in Table 7 we can conclude that the respondents with continuous transitional careers score significantly higher on the self-directedness scale than the rest of the sample; at the same time the respondents with interrupted transitional careers score significantly lower (p=0.068) on the same scale than the rest of the sample. In regard to value-drivenness we find that the respondents with

continuous transitional careers score also higher than other respondents, at the same time no difference for interrupted continuous careers has been found.

8. Discussion and conclusion

To summarize our analysis, we have approached the issue of the relationship between career mobility and overall labor market experience (the number of years actively employed on the labor market) in two steps. In the first step we hypothesized that mobile careers are shorter because there is a third factor linking both phenomena, namely the context in which a career unfolds. To define this context we have distinguished between upper and lower (primary and secondary) labor market segments, in which multiple critical career characteristics are "bundled" in respect to the extent in which these characteristics can be construed as positive or negative. Subsequently we have demonstrated that both higher career mobility and career discontinuity are substantially more prominent in the secondary labor market sector, conform to the classic postulate of the labor market segmentation theory. It needs to be noted that career discontinuity and overall labor market experience are closely related, representing by a manner of metaphor different sides of the same coin. The link between career mobility and discontinuity offers an explanatory base for the findings in our previous report (Kovalenko & Mortelmans, 2012), where for most European countries in the analysis we have found a significant negative relationship between career complexity (an indicator related to career mobility) and overall labor market experience.

Based on these results we conclude that despite the claims of the pervasive proliferation of the *new career* patterns meant to survive the inherent uncertainty of the transitional labor markets, the traditional socio-economic stratificational structures still matter. Both career data for old cohorts (*Sharelife* data, see Appendix I)[4] and career data representative for the contemporary workers (*Careers in Flanders*, current study) exhibit the same dynamic: higher mobility levels go hand in hand with more unemployment and therefore shorter career span. Once again we need to stress that correlation between these two aspects does not necessarily entail a (direct) causal relationship, rather depending on the contextual characteristics of mobility.

In the second step we have introduced the protean career orientation variables into the analysis. Protean career orientation has been appraised in the theoretical literature as a successful way of coping with the context of uncertain and traditional labor market, where workers and not organizations are responsible for managing the course of individual careers. A joint examination of the labor market stratification on one hand and on the distribution of protean career orientation for different subgroups has allowed us to (1) evaluate the validity of the earlier positive findings on the protean career, this time in regard to the overall labor market experience and unemployment chance and (2) to test the hypothesis that the effects of the protean career orientation could be different for various socio-economic strata, in our case the discerned primary and secondary career segments.

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[4]For details see Kovalenko & Mortelmans (2012)

8.1 Career mobility and labor market experience: a matter of segmentation?

As we have mentioned previously, the overall pattern of mobility corresponds to previous findings in the literature: individuals make more transitions in early career stages, whereas in later stages careers are more stable (Light & McGarry, 1998; Topel & Ward, 1992). This cannot but have an effect on the distribution of age between the interrupted and continuous careers groups; there is a slight overrepresentation of the younger cohorts in the interrupted group, which is reflected in Table 4. In the same fashion, women's careers are interrupted more frequently than those of men.

When we model labor market experience using career mobility as a defining factor, we also need to consider the temporal alignment of both variables. While overall labor market experience is a variable spanning the entire career, career mobility is measured in the last career decade in relation to the survey moment. This can have implications in regard to the causal dynamic between both variables. First, it is possible that one or several underlying factors have an effect of both variables, potentially a phenomenon of the long-term nature. For instance, the nature of the working relationships in the respective labor market segments or contextual norms in relation to expected mobility at a certain career stage (Han & Moen, 1999). It has also been established that past unemployment is a strong predictor or future unemployment, which, in accord with both our findings and the theory, could be the common factor, influencing both career span and career mobility (Mühleisen & Zimmermann, 1994). In addition, even though career mobility decreases with age, it is possible that later mobility is indicative of earlier mobility, which would correspond to our earlier findings on transitional career patterns (Kovalenko & Mortelmans, 2011; 2012). The latter would then indicate an opposite causal mechanism, namely that earlier career mobility defines the chances for subsequent employment continuity (Elder, 1998). Finally, career mobility in the measurement period is in itself a part of the overall labor market experience, and therefore can have a direct causal effect as well. The direction of causality is thus not entirely clear due to both the complexity of the phenomenon and the methodological limitations inherent in the data (cfr. infra).

In exploring the properties of interrupted and continuous career groups, we find a configuration of factors that is fully consistent with the postulates of the LMS theory. For all variables in consideration, the interrupted career group contained significantly lower scores, while the continuous group contained higher scores. The single exception was the degree of voluntariness of the last career change. The mean for the last transition voluntariness differs between both groups, being slightly lower in the interrupted career group. Nevertheless, that difference is not statistically significant, and becomes almost equal to zero when controlled for age, gender and education. This dynamic can indicate that attitudes and choices in regard to non-employment differ by age and gender, and that younger people (especially younger women) may be more prone to voluntarily interrupting their career to pursue alternative goals.

8.2 Protean career orientation

The results of the protean career orientation analysis largely correspond to the previous findings in the literature, especially in regard to its self-directedness dimension (Briscoe et al., 2012; De Vos & Segers, 2013; De Vos & Soens, 2008), reaffirming the relevance of the latter both for research and public policy. Self-directedness can without any reservation indeed be a crucial coping mechanism that helps the individual navigate the uncertain labor market. This statement is supported by all

relevant models in our analysis. Self-directedness scores are higher in the continuous career group in comparison with the interrupted group; this factor contributes significantly to overall labor market experience. In addition, respondents with short-term unemployment spells (less than 12 months) in their careers have the levels of self-directedness identical to that of the continuous group. This suggests that it may be one of the factors contributing to their return to the labor market, considering on the other hand that individuals with long-term unemployment spells scored significantly lower on self-directedness, the differences mentioned persisting even after controlling for age, gender and education.

The analysis of highly transitional subgroups leads to the same conclusion. Highly transitional interrupted careers score significantly lower on the self-directedness dimension, while highly transitional continuous career score significantly higher on the same dimension. This is in line with the hypothesis that self-directedness is instrumental to successfully bridging multiple transitions throughout one's career (Briscoe et al., 2012).

The dynamic of the second dimension of the protean career is not as straightforward. Value-drivenness is somewhat higher in the continuous career group, suggesting that it too may be a covariate of a successful coping behavior. On the other hand, the extent of the between-group difference is not as pronounced in contrast with the self-directedness dimension, which can be seen both in the comparison of the short- and long-term unemployed as well as in the comparison between interrupted and continuous career groups. Most importantly, however, the effects of the value-drivenness on the overall labor market experience are negative for both career groups, even though to the varying extent. Value-drivenness entails, among other things, that the individual follows his or her own values in guiding their career path, as opposed to the values of the employing organization (Briscoe et al., 2006). From our analysis it appears that this can be detrimental to career continuity.

In order to interpret this finding we need to consider the interaction effect for the value-drivenness dimension. While the main effect is negative, it is to a large degree countered by the positive interaction effect. This means that the overall effect for the interrupted group remains negative, while for the continuous group the effect is close to zero (though still remaining negative). This can be interpreted in the sense that not all values lead to constructive career behaviors (from the labor market perspective), and that a certain degree of guidance on the part of either employing organizations or other relevant actors could be beneficial. In other words, a balance between one's own values and those prevalent in the working environment may prove to be more effective than a purely individualistic orientation.

Career mobility effects also differ between both groups. Its main effect is positive, corresponding to about half a year of labor market experience per additional career transition. The interaction effect, however, is negative, resulting in the overall negative effect for the continuous group. This finding suggests that despite the increasing flexibilization of the labor market, career stability carries a certain value and, perhaps, this entails a threshold of mobility after which the latter becomes detrimental to career outcomes. The positive effect of mobility in the interrupted group should be interpreted with caution, as the alternative polynomial models suggest that this effect may be non-linear and flattens as the number of career transitions grows. This may be interpreted as substantial

returns to mobility for those non-actives who undertake any attempts to work at all, which diminishes with subsequent transitions.

The interaction effects between career variables and the labor market segments constitute one of the most important findings in this study. Their existence suggests that career dynamic in the primary and secondary labor market segments may exhibit different properties, which has implications both for research and policy. The contemporary career literature interprets the transformations of career trajectories largely in the positive sense, while "the dark side" of the mobile careers (Gerber et al., 2009; Kalleberg, 2003) remains outside the spotlight. In this study we see these are exactly those in more precarious positions who are to a lesser degree insulated by the career orientations and the associated behaviors that have proven to be instrumental to navigate the transitional labor markets. The contemporary labor markets place more responsibility on individuals, but the resources to carry this responsibility differ substantially across the traditional socio-economic strata. As our analysis suggests, this may lead to non-linear effects of both the cause of career transformation (increased career mobility) and the coping mechanisms aimed to alleviate the potential negative effects of the transitional labor market (career orientation).

9. Policy relevance

As careers become more and more transitional, the supporting mechanisms that ensure the successful career development are evolving as well. The task of career management is no longer the organizational prerogative; workers themselves are now charged with making their own career paths, navigating the labor market that become less and less stable. It appears, however, that not all workers are equally equipped to fulfill that task to the same degree of success. If the expertise on career management was previously concentrated in the HR departments of the employing organizations, now the relevant skills seem to rather be linked to the individual levels of human and career capital that is unequally distributed across the socio-economic strata. This is suggested by our analysis of the career covariates segmentation and the subsequent analysis of the distribution of the self-directedness component of the protean career orientation across both segments. Simpler put, workers with more initial educational, social and economic capital are better able to produce the kinds of self-reflexive and proactive behaviors that are required in the uncertain employment environment. In the era of the traditional career organizational policies helped at least to a degree reduce the inequality in the individual capital by taking care of the employee's career prospects under the assumptions of the loyalty based psychological contract (Fuller, 2008; Mirvis & Hall, 1994). If the organizational control can no longer compensate for the differences in the individual capacity to direct one's career, the old structures of socio-economic stratification not only can become reproduced in the context of the transitional labor market, but also potentially become amplified, contributing to job and career polarization (cfr. Goos, Manning, & Salomons, 2010; Kalleberg, 2003; Milkman & Dwyer, 2002).

Previous research shows, that self-directedness can be improved through career counseling (Verbruggen & Sels, 2008). Our findings suggest that both interrupted and continuous groups would benefit from an increase in self-directedness and related skills, however the lack of these is more acute in the lower labor market segments, especially for the long-term unemployed. As consequence, these groups can benefit from additional incentives to participate in the career

counseling programs. In this context an issue of reaching the vulnerable groups can be raised (Albertijn & Sels, 2005). As these groups have initially lower levels of career management skills, they are by definition less likely to participate in the programs of career counseling (Bollen et al., 2006). In addition, career management support activities that are still offered through the employing organization are less likely to reach the vulnerable groups because of the nature of their employment in the secondary labor market segments. Our data confirm that the respondents in the interrupted career group are significantly less likely to follow any educational activities aimed at career capital development.

Following the findings stemming from the subgroup analysis it is possible to suggest that the definition of the vulnerable groups in the context of career counseling be reviewed, considering the inclusion of individuals with long-term unemployment spells and/or frequent job changes with periods of inactivity or unemployment.

The need for external career support for the vulnerable groups is further underscored by the negative effect of value-drivenness on our outcome variable, peculiar to the interrupted group alone. This finding may suggest the need to examine work-related values that are not constructive to successful career development (e.g. in the course of career counseling). More research is required, however, to reach any specific conclusions in this regard.

The issue of unequal distribution of skills and attitudes related to career management and self-directedness can also be viewed in a broader societal perspective. While organizations may continue to offer limited support in regard to career management, the unequal distribution of career management skills will remain an inherent issue of the transitional labor market, whereas these skills are absolutely required for a successful career. The fact that self-directedness can be improved by counseling, also implies that these skills can be taught in a more preventive fashion, e.g. as a part of the initial educational trajectory; potentially targeting educational tracks associated with lower career stability later in career. Policy makers should recognize the deficiency of self-directedness skills as a substantial risk factor for the lower socio-economic strata, and consider emphasizing the acquisition of these skills during early career stages.

Our results indicate that career mobility is differently associated with the outcome in our study, when the distinction between the upper and the lower labor market segment is made, which is in line with our earlier findings in regard to retirement timing (Kovalenko & Mortelmans, 2012). This differential dynamic potentially implies that the effects of policies stimulating job mobility will also differ per labor market sector, which warrants closer attention to the effects of mobility in regard to the vulnerable groups. In other words, across-the-board stimulation of mobility, e.g. via hiring and firing regulation, may yield advantageous effects for some labor market strata, but simultaneously create adverse effects for other strata.

10. Limitations

Under the limitations of this study it is feasible to classify the 10-year career history measurement period present in the data, which does not reflect the entire pattern of mobility in the individual career. This makes the interpretation of causality between career mobility and outcome variables less straightforward.

11. Appendix I: Sharelife data

In this section we refer back to the analysis of *Sharelife* data in regard to career mobility and labor market experience from our previous study (Kovalenko & Mortelmans, 2012). Information about the data and variable measurement can be found in that text. In a post-hoc model we have established then that the negative relationship between the two variables is found in 11 European countries from the 13 in total in the analysis. That finding has been further elaborated in the current study, leading us to the conclusion that the said relationship is due to a higher chance for a non-employment interruption for careers with high mobility levels. We have argued that the causal basis for this relationship is the labor market segmentation, where precarious career have a significantly higher number of transitions. In this Appendix we replicate the same model logic (to the extent of possibility) using the original *Sharelife* data for Belgium only:

	Estimate	Std. Error	z value	Pr(>|z|)
(Intercept)	1.500	0.269	5.564	0.000
Career transitions	-0.563	0.062	-9.139	0.000
Age	0.025	0.009	2.944	0.003
Gender (F)	-1.789	0.170	-10.524	0.000
Education (years)	0.037	0.022	1.715	0.086
Voluntariness	0.813	0.244	3.325	0.001
Career satisfaction	0.307	0.114	2.691	0.007

Table 8. Logistic regression of continuous career group membership (Sharelife data)

The model based on *Sharelife* data virtually repeats our conclusions drawn from the *Careers in Flanders* (CiF) data. Here too we divide careers in two groups, interrupted and continuous, subsequently examining factors that influence the membership in each group. This model shows that the continuous career group has significantly less career transitions with an effect size comparable to that in Table 4. Age has a small positive effect, which is also comparable despite the absence of the younger cohorts in the *Sharelife* dataset. Gender has a slightly larger effect than in the CiF-based model, thus women having a higher chance of belonging to the interrupted group. The direction of the effect is identical nevertheless. Education has a positive effect, which further confirms the CiF-based results, considering the difference in variable coding. Career transition voluntariness is higher in the continuous group. In the *Sharelife* dataset this variable was constructed as an averaged index across multiple transitions, as opposed to the single transition in the CiF dataset, which may be the reason why the factor is significant here in accord with the theory, and not in the CiF-based model. Career satisfaction is also higher in the continuous group, which is also identical to the CiF model.

This comparison suggests that the logic behind both models is similar, and that the results obtained in the current study can be generalized beyond its context.

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