Facilitators and constraints at each stage of the migration process

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Abstract

Behavioural models of migration emphasize the importance of migration decision-making for the explanation of subsequent behaviour. But empirical migration research regularly finds considerable gaps between those who intend to migrate and those who actually realize their intention. This article applies the Theory of Planned Behaviour, enriched by the Rubicon model, to test hypotheses about the roles of different facilitators and constraints within a three-stage model of migration decision-making and behaviour. The data comes from a tailor-made panel survey, based on random samples in two German cities in 2006–07 (N = 2408). The results show that splitting the process of migration decision-making into the phases of considering, planning, and realizing migration helps to model facilitators and constraints more precisely. The facilitating and constraining effects of life-course events along with opportunities at possible destinations, individual resources and social support on each stage of migration are outlined.

Keywords

Migration, residential mobility, decision-making, behaviour, perception, theoretical models, Germany

1. Introduction

The Theory of Planned Behaviour (Ajzen 1985; Fishbein and Ajzen 2010) is a general psychological theory about human decision-making and behaviour which was successfully applied in empirical migration research and agent-based models (Klabunde and Willekens 2016). It states that intentions are the products of expectations that one will attain valued goals as a consequence of a certain action, like migration. According to the theory, intentions are then the primary determinant of behaviour. But in practice people often do *not* do what they reported to intend. In a worldwide poll the Gallup Institute found that less than one tenth of the respondents who desired to migrate to another country permanently were planning to make the move in the next year (Esipova, Ray and Pugliese 2011). And less than half of those in the planning stages were making the necessary preparations, such as applying for visas and looking for a job at the destination. On the one hand, the gap between migration intentions and behaviour might arise as a consequence of various intervening factors that may come between migration intention and behaviour, as highlighted by the preceding Theory of Reasoned Action (Ajzen 1985). Such constraints undermine actual control over necessary steps to put intentions into action. But on the other hand environmental factors and a lack of skills and abilities might deter actors already from forming a migration intention, because these issues undermine perceived behavioural control over the course of preparing for and realizing migration. Additionally, individual background factors like personality traits, experience from past (migration) behaviour, financial resources, and relevant knowledge are assumed to form control beliefs, which are the main source of perceived behavioural control. In sum, according to the Theory of Planned Behaviour facilitators and constraints of certain course of action might be present at all stages of decision-making and behaviour. In migration theory and research, facilitators and constraints play an important role, but their influence was seldom analysed systematically in the course of stages.

Complementing the Theory of Planned Behaviour with another psychological theory of purposeful action, the Rubicon model (Heckhausen 1991), allows modelling the course of the migration process more precisely, following the stages of considering, planning and realizing migration. Building on previous research (e.g. Kalter 1997; Kley 2009; Kley 2011) this article derives hypotheses about the influence of life-course events, opportunities, individual resources and social support as facilitating or constraining factors with regard to each stage of migration decision-making and behaviour. These expectations are tested empirically making use of a tailor-made survey on migration decision-making and behaviour

The data come from the first and second wave of the study "Migration decisions in the life course". It uses random samples of the population aged 18 to 50 years in two German cities in 2006/07 (N = 2408). As this dataset includes an array of specific questions designed to test expectations derived from the above theories, it is especially well-suited for this analysis despite the moderate number of cases.

2. Theory and state of research

2.1 The process of migration

Nowadays it is widely acknowledged that migration is best understood as a time-consuming process and not merely as an event. This understanding has consequences for both the theory and empirical analyses of migration. It implies that theorizing phases of migration decision-making and behaviour correctly is of utmost importance for enhancing our knowledge about the underlying mechanisms that lead to migration. The classical way to prove theoretical models in the social sciences is estimating the assumed influences with data from field experiments or population surveys. If data about individual perceptions, attitudes and opinions is needed, there is no way around asking people (cf. Fishbein and Ajzen 2010 pp. 456 ff.), in spite of various sources of potential bias known from the literature. Furthermore,

for analysing the sequence of migration decision-making and behaviour prospective panel data is needed, because it is necessary to first ask about intentions and to check later whether the intended behaviour was carried out. Retrospective information about perceptions and intentions would not be reliable. Therefore, prospective panels in which the same respondents are interviewed repeatedly, ideally enriched by retrospective information about biographies, are regarded as the 'gold standard' for the empirical analysis of causality in the social sciences (Mayer 2009). In the case of migration, collecting such data is demanding because the process of migration decision-making may take a long time (Amit and Riss 2013), events may alter its course (Achenbach in Press), and because *migrants change their residence*, which complicates following them over time.

These difficulties might be reasons for the fact that studies using multi-stage models are still scarce in migration research. Studies which apply two-stage models of migration by distinguishing between the wish, desire, or intention to move at the first stage and actual migration behaviour at the second stage are often inspired by the Theory of Planned Behaviour, which was first developed under the name Theory of Reasoned Action (Ajzen 1985; Fishbein and Ajzen 2010). The theory states that intentions are the products of expectations that one will attain valued goals as a consequence of a certain action, like migration (see Figure 1). Such expectations are formed against the background of personal factors, like education, marital status, and values, and in the context of societal background factors, like political and economic context, and social support. All these factors influence personal beliefs about the consequences of migration, about attitudes of significant others with regard to migration, and about enabling or interfering factors – the facilitators and constraints of migration. The beliefs shape which attitudes people have towards migration, which norms they connect with migration, and which degree of personal control over migration they perceive that they have. An intention to migrate is formed if the benefits of

migration are perceived as considerably higher than the costs. Intentions are then the primary determinant of behaviour.

- Figure 1 about here -

According to this model it is likely that intentions will result in corresponding behaviour because they are the end product of positive perceptions and beliefs on the grounds of personal and societal characteristics. Therefore the theory locates the main disturbance that may come between intention and behaviour as being outside the individual, namely actual control over migration. One reason for low actual control might lie in a misperception of individual skills and abilities, and of environmental factors during migration decision-making, but according to the theory this influence is considered to be low compared to influences from external circumstances. In summary, the Theory of Planned Behaviour states that major influences are present at the intentions stage, that migration behaviour is an expectable outcome of intending it, and that external factors might interfere between intentions and behaviour, working as constraints or facilitators of migration.

Some studies have applied two-stage models in their empirical research, but the questions asked differ considerably with regard to the type of move and with regard to the timeframe in which migration was expected to take place (cf. Kley 2011). These variations at least complicate comparisons of research findings. Moreover, the underlying theoretical concepts of decision-making are not the same. Some studies measure mobility intentions either as expectations to move (eg. Rossi 1980 [1955]; McHugh 1984; Kan 1999) or as mobility plans (Andersen 2008; van Dalen and Henkens 2013). Others ask respondents about their thoughts, desires or preferences to relocate (eg. Speare, Goldstein and Frey 1975; Landale and Guest 1985; Kalter 1997; Lu 1998; Jong 2000; Groot, Mulder and Manting 2011; Coulter 2013). But

psychological research has demonstrated that the psychological and behavioural consequences of a 'wish' are quite different to those of a 'plan' (Heckhausen 1991; Gollwitzer 1996). In the following this understanding of the decision-making process will be outlined.

The desire to live somewhere else and the wish to move are grounded in dissatisfaction with the current situation at the place of residence, and in fact there is a long tradition of research on dissatisfaction with the current dwelling and its environment, starting with Rossi's (1980 [1955]) ground-breaking study "Why families move". He found that 'complaints' about the current housing situation explained a great deal of the widespread desire to relocate. One can translate these complaints into dissatisfaction. But the intention to move was only influenced by the 'complaints' if the respondents had a desire to move. Rossi concluded that the desire to move is a necessary but not a sufficient condition for intending to move.

The Theory of Planned Behaviour does not account for desires, which could be thought of as a precondition of intentions. But the intention to move, not the desire, was found to be a good predictor of realizing it. One might therefore conclude that desires are irrelevant and add nothing relevant to the explanation of certain action. But another psychological model of decision-making and succeeding behaviour, the Rubicon model (Heckhausen 1991; Gollwitzer and Bargh 1996), consists of three stages. The Rubicon model suggests that at the beginning wishes and desires trigger a pre-decisional phase in which many aspects are considered and preferences are formed by deliberating their desirability and feasibility. At this 'considering stage' (cf. Kley 2011) thoughts are easily dropped again without severe consequences for further attempts to realize the behaviour in question. But once the decision in favour of action has been taken, the situation is different. The individual 'crosses the Rubicon' and enters a pre-actional phase in which the 'when', 'where' and 'how' of getting

started is planned. At this 'planning stage' abandoning the process is costly because material and non-material means have already been invested in order to realize the intended goal. Being unable to put one's plans into action might damage self-respect. The transition to an action phase with determined and persistent pursuit of goal completion is therefore likely, and this 'realizing stage' is likely to yield the desired action outcomes, in this case migration. This understanding of the process of migration leads to the sequence 'not considering – considering – planning – realizing migration', which was already proposed by Kalter (1997) with reference to the Theory of Planned Behaviour.

To complete the theoretical picture an idea is needed of where the wishes and desires come from that initiate considering migration. These are the goals and values people are striving to realize via migration (Jong and Fawcett 1981), for instance to improve occupational career prospects or to live close to a beloved person. Therefore, within this model migration is clearly understood as instrumental behaviour for realizing life-course goals (cf. Willekens 1985, 2014; Aybek, Huinink and Muttarak 2015). A life-course view on migration in that life events – such as completing school or marriage – may change the utility of locations (Courgeau 1985) calls for such complementation of the Theory of Planned Behaviour, because modelling an intention-preceding stage of decision-making is promising.

Empirically, the extent of correct forecasting of moving behaviour varies strongly with the wording of survey questions, with the spatial type of move, and with the timeframe applied to both questions about the intended move and the follow-up of actual moves. Table 1 depicts the percentages of expected movers and unexpected stayers for selected studies. The table could have been more comprehensive if information about the wording of questions and about the overall likelihood of the estimated outcomes were reported more often. For the calculations of the percentages respondents not reached in a subsequent panel wave were

excluded; this results in a 'conservative' estimation, because the percentage of migrants among those respondents is probably relatively high. It was estimated, for example, that the percentage of non-response in the second wave was lowest among those who did not consider migration (24 per cent), medium among those who considered it (30 per cent), and highest among those who planned it (31 per cent; in total: 26 per cent) (cf. Kley and Huinink 2011). The share of unexpected movers among those who reported no moving intention is not displayed in Table 1. For a comprehensive assessment of the forecasting strength of the respective models this information would be necessary, but for highlighting variations in question wording and their outcomes this brief overview can be considered sufficient. With the exception of the studies by Kalter (1997) and Kley and Huinink (2011) all studies applied two-stage models, but some differentiated the strength of decision-makers' determination. In these cases, the percentages of low determination are presented in the column of the first stage of decision-making, and the percentages of high determination are presented in the column of the second stage.

- Table 1 about here –

Table 1 demonstrates that the percentages of expected movers and unexpected stayers vary strongly across the studies. Rossi's (1980 [1955]) study predicted moving behaviour most precisely; it referred to all kinds of moves and estimated moving behaviour after eight months. All in all it is apparent that efforts to estimate moving intentions more precisely are rewarded with better predictability of behaviour. But there might also be a trade-off between the accuracy of the estimates and their theoretical importance. Rossi (1980 [1955]), for instance, gathered information about individual *determination* with which moving was pursued. With the Rubicon model (Heckhausen 1991) one can assume that persons who score

highly on this item are in an advanced stage of preparing migration and are therefore very likely to realize the intended behaviour. But asking about planning migration includes both the pre-actional, volitional phase of planning how to act and subsequent preparatory actions. In my view, the proposed three-stage model of considering, planning, and realizing migration is well balanced, as it performs well in forecasting migration behaviour while resting on non-trivial stages anchored in general psychological theories of decision-making and action.

2.2 Facilitators and constraints in the migration process

In the following the influence of facilitators and constraints during the course of migration decision-making and behaviour will be analysed more precisely than in previous studies. On the basis of the three-stage model certain constraints are expected to deter actors from even considering migration because they prevent them from developing openness to changing their residence. Other constraints can be expected to jeopardize planning migration because they undermine preparations and therefore the pursuit of goal completion. And a third group of facilitators and constraints would be located between migration intention and behaviour. The Theory of Planned Behaviour suggests that constraints are circumstances that reduce an actor's actual control over migration, whereas external factors that enhance his or her control can be seen as facilitators (see Figure 1).

The state of research reports three categories of constraints and facilitators: (1) opportunities that arise or not, (2) social support that might be present or not, and (3) the actor's resources that might be sufficient to overcome obstacles or not.

First, among the *opportunities* that facilitate moving is an ample supply of housing (Rossi 1980 [1955]: p. 162). The housing market constrains owners from moving more often than renters (Landale and Guest 1985; Kan 1999; Clark and Huang 2003; Coulter 2013), except for owners who want to rent a dwelling (de Groot, Mulder and Manting 2011). Accordingly, the

destination area is important for the likelihood of realizing migration intentions (Coulter 2013). De Groot et al. (2011) found, for instance, that in the Netherlands moving intentions were more likely to be realized if the destination was at the national peripheries compared to the densely populated Randstad, to an intermediate zone, and to foreign countries. Additionally, private renters were found to be less often deterred from moving than social renters (Coulter, Ham and Feijten 2012; Coulter 2013), probably because the housing market for social renters is more strongly restricted. It can therefore be expected that homeowners consider migration less often compared to renters and that having found a dwelling at the destination triggers planning and realizing the move.

The offer of opportunities for work or education might also be thought of as a facilitator for migration because in the course of migration decision-making it is often uncertain whether such opportunities will arise. It was shown that expected entry into the labour market, expected job change, and expected start of higher education or an apprenticeship do predict planning migration significantly more strongly compared to just considering it, and that such events might also trigger putting migration intentions into action (Kley 2009; Kley 2011; Kley and Mulder 2010). The following investigation will analyse in more detail whether expected life-course events represent the actual offer and acceptance of opportunities at the destination, or whether offers of concrete opportunities have an *additional* influence on the likelihood of putting plans into action.[i] It is expected that having a workplace, a university place or an apprenticeship place at the destination triggers planning migration at least as strong as realizing it because in the welfare states occupational reasons for moving are widespread and people will normally not prepare for moving without having concrete offers.

Second, facilitators and constraints in the form of the influence of significant others, like family members and friends, can be put under the umbrella-term *social factors*. Among the social reasons that have been found for unexpected moves are family size changes (Rossi

1980 [1955]: p. 162; de Groot, Mulder and Manting 2011), namely divorce and the birth of a child (see also Clark and Huang 2003; Kley 2011; Coulter 2013). Additionally, it was found that having preschool or school children often hinders putting moving intentions into action (Coulter, Ham and Feijten 2012; Coulter 2013). But these findings are inconclusive, as other studies found no effects of childbirth and having children on realizing migration intentions (for instance Kley 2011). In this study it is expected that having children in the household often deters actors from realizing their moving intention, because other household member's reluctance to move might be a decisive constraint was already found with regard to the partners influence (Kley 2009; 2011). In accordance with these findings it is expected that living with a husband or unmarried partner generally deters actors from considering and planning migration, but that a partner who wants the move facilitates migration decision-making as well as realizing the move.

The migration of friends and relatives was found to facilitate migration behaviour (Kley and Mulder 2010), most likely because the migrated peers can give information about moving and perhaps concrete help at the destination (Haug 2008). Correspondingly, having spatially concentrated friendship networks *at the current place of residence* was found to constrain people from moving net of having intentions to move (Kley 2009; 2011). In this article, the influence of having friends or relatives *at the destination* will be examined more closely with regard to the stages of migration decision-making and behaviour. It is expected that having relatives, friends, and acquaintances at the destination facilitates planning and realizing migration.

A third group of facilitators and constraints seem to be individual *resources*. It was found that having an income enhances young adults' chances of putting migration intentions into action (Kley and Mulder 2010), and that the probability of moving among those who intend to increases with household income (Lu 1998; Clark and Huang 2003; Groot, Mulder and

Manting 2011; Coulter, Ham and Feijten 2012; Coulter 2013). Correspondingly, having no or very little income (Kley 2009; Kley 2011) and not being employed (de Groot, Mulder and Manting 2011) deters people from moving, but there are also studies that find no effect of income (for instance van Dalen and Henkens 2013). In this study no influence of income on migration decision-making but on realizing migration intentions is expected.

It was argued that personal migration experience might act as a resource, too, because experienced persons are normally more confident about managing the challenges of moving and are also more adept in actually doing so (Haug 2008). Correspondingly, it was found that persons with migration experience are more likely to put their moving intentions into action (de Jong 2000; Kley 2009; 2011; Kley and Mulder 2010). Directly measured personal traits of self-efficacy and sensation-seeking were found to be not influential for realizing migration (van Dalen and Henkens 2013). Accordingly, in this study it is expected that personal migration experience triggers planning and realizing migration, whereas personality traits are expected to be not influential.

3. Data, Method and Variables

The study "Migration decisions in the life course" (Kley and Huinink 2011) offers the possibility to test these theoretical considerations. It is a three-wave panel study carried out by Computer Assisted Telephone Interviews (CATI) in 2006, 2007, and 2008 among respondents aged 18 to 50 years. Stratified random samples were drawn in two German cities making use of random-digit dialling according to the Gabler-Haeder procedure (Gabler, Häder and Hoffmeyer-Zlotnik 1998). The two cities, Magdeburg in East Germany and Freiburg in West Germany, were similar with regard to population size, and both were *not* located at a legal or natural border or within close proximity to another important city, but they were different with regard to economic prosperity and therefore local opportunity

structures. Information about the first stage of migration decision-making was collected in the screening interview, by asking the respondents who had lived at their current residence for at least one year whether they had recently considered migration beyond the city boundaries to live somewhere else. Those who answered affirmatively to this question were oversampled, and they were asked whether they planned to leave the city within the next twelve months. Information about whether migration actually took place was collected by follow-up interviews about four, eight, and twelve months after the initial interview. If the household had moved, the follow-up interview was carried out immediately and the respondents were not contacted again before the third wave took place. If the household had not moved, the respondents were contacted again until finally the follow-up interview was carried out about twelve months after the initial interview. The interviews at these three different points in time are denoted the second wave. There was a third wave about 27 months after the initial interview, but this data is not part of this study.[ii]

Initially, 2410 interviews were collected and 2288 persons (97 %) agreed to participate in the panel; 1673 persons were reached in the follow-up interviews of the second wave. The response rates were 52 % in the first and 71 % in the second wave (Kley and Huinink 2011). The loss of cases due to item non-response is small, as missing information was imputed; imputation is controlled for in the estimations. The number of cases is 2408 for the estimation of considering and planning migration with data of the first wave, and 1671 for the estimation of moving with data from the first and second wave.

The dependent variables are the three stages of considering, planning and realizing migration (movers versus stayers). A part of the stayers is a small group of inner-city movers (n=36, that is 2 % of N = 1671 respondents reached in the second wave). Taking the nested structure of the data into account the influences on each of the stages are estimated separately via binomial logistic regression, conditional on having reached the previous stage. First, the

influences on considering migration are estimated, then, in a second group of models, the influences on planning migration are estimated stepwise exclusively among those who considered moving. With these group of models the influence of opportunities at the destination on migration decision-making can be tested, as this information could only be gathered among those who at least considered migration. These respondents were asked whether they were already certain about their destination, and if not, which destination they would most like to move to. Subsequently they were asked whether they already had an array of opportunities there, which will be described in due course.

To correct for sample stratification, design weights were applied in the descriptive analyses and, additionally in the first model that makes use of the full sample. Although correcting for sample selection bias is not necessary to track down causal effects in a well-specified model, it is recommended when sampling weights are a function of the dependent variable (Winship and Radbill 1994). This is the case when considering migration is the outcome variable and respondents considering a move have been oversampled. In these situations correcting for sample selection bias provides consistent estimates of the true regression slopes (Winship and Radbill 1994). That weighting induces heteroscedasticity in the error terms is taken into account by the statistical program which provides heteroscedastic consistent (robust) standard errors. When estimating planning migration among those who considered it, weighting is not necessary because those who considered migration formed an extra stratum in the sampling framework.

Third, realizing migration is estimated among those who planned moving. For estimating the probability of moving the problem of panel attrition has to be taken into account. Therefore, additionally a probit model with sample selection (Dubin and Rivers 1989) is applied which estimates the probability of moving among those who planned it conditional on the probability of participating in the second survey wave. It will be shown that according to

this model there is little reason to assume serious bias of the estimates due to panel attrition, but nevertheless the estimates of constraints and facilitators, in which we are especially interested, could be biased when attrition is not taken into account.

The estimates are displayed in the form of average marginal effects which have the advantage of being directly comparable among models with different numbers of cases and predictors (Mood 2010). The average marginal effect can be used to summarize the effect of a unit change in the variable on the probability of the outcome, as calculated over all observations.

The following predicators might be not self-explanatory:

1) Variables measuring personal characteristics and resources: 'Higher education' covers all respondents with a college or university degree. 'Income' is personal income after deductions, estimated on a log scale. Twelve per cent of the respondents did not report their income. In order not to lose these cases, missing values were imputed and a dummy variable for missing income was included in the analyses. 'Immigration background' indicates whether the respondent does not hold German citizenship or was born outside the country. 'Migration experience' estimates whether the respondent moved at least once across the boundaries of the current place of residence. Whether a respondent's personality is goal-oriented is estimated via an index that was comprised of four questions that addressed conscientiousness (alpha coefficient of scale reliability = .47).
2) Variables measuring social factors: Whether respondents live in a 'couple household' indicates a rather institutionalized partnership with responsibilities. In the sample nearly all of the married persons live in a 'couple household' but only 65 per cent of those who live with a partner are also married. 'Child in household' indicates the presence of children in the household regardless of whether these children are

biological or stepchildren. 82 per cent of the children are below the age of 18. The concentration of friends at the current place of residence and close surroundings is estimated on a Likert scale running from 'all' to 'none' in five steps.

3) Whether the respondents might pursue valued goals via migration is estimated as perceived opportunity differentials. The question was (translated from German): "When moving to another town, living conditions would be different. Now I will ask you with regard to certain areas of life whether you think that they will be probably better after moving, the same, or worse. Would (...) be better, the same or worse after moving?" The items were: Your partnership / the possibility to find a partner; your income; the possibility to pursue hobbies and interests; your family life; your job situation; your health in the long run; contact with friends and acquaintances; your standard of living. They were combined to an index (alpha = .64).
4) Variables measuring the expectancy of attaining these goals: For an array of life-course events respondents were asked whether they have occurred since the beginning of the actual year or whether they expected them to occur within the following six months. Events that were estimated to correlate were combined, so that in the end six classes of life-course events are distinguished: (1) completing school, leaving the parental home, starting higher education or an apprenticeship; (2) completing studies, entering the labour market; (3) occupational change; (4) marriage or childbirth; (5) the moving away of friends or relatives; (6) end of partnership. Additionally, those who considered migration and were able to report a possible destination were asked whether they already had the following there: relatives, friends or acquaintances; a workplace; a place in higher education or an apprenticeship; an own or a partner's dwelling.

- Table 2 about here -

Table 2 gives an overview over the distribution of destination characteristics among migration decision-makers. About one third has relatives, friends or acquaintances at the destination, and more than 10 per cent have a workplace and/or a dwelling there. Having a place in higher education or an apprenticeship at the destination is less common. Each of these facilitators is experienced more often by inhabitants of the more prosperous city, Freiburg, than by inhabitants of Magdeburg, but the differences are relatively small. Large differences can be observed with regard to the stage in migration decision-making. Persons who are at the planning stage report facilitators at the destination considerably more often compared to those at the considering stage. The distribution of destinations among the citizens of Magdeburg (East Germany) and Freiburg (West Germany) is also interesting. Respondents currently living in Magdeburg considerably more often report destinations in East Germany, where labour market opportunities are still scarcer than in West Germany, than their counterparts in Freiburg. Respondents from Freiburg more often report destinations in West Germany and abroad.

4. Results

Table 3 shows the influences on considering, planning and realizing migration for each of the stages separately. Within the higher stages of migration – planning and realizing - a stepwise modelling strategy is applied to show interactions of facilitators at the destination.

For considering migration (Model 1), individual resources are not relevant, despite higher education which marginally enhances the probability of considering migration. But social ties at the place of residence reduce the probability of considering migration significantly, with one exception: having at least one child in the household does not inhibit parents from thinking about moving. Living with a partner, either married or cohabiting, normally reduces

the likelihood of considering migration. But if this partner is in favour of moving, his or her influence outweighs the deterring effect of partnership status. Being a homeowner and having one's workplace and most friends in town each reduce the probability of considering migration. These deterring effects of social ties at the place of residence are significant over and above the individual perception that opportunities in various areas of life might be better elsewhere, which has the strongest single impact.[iii] The probability of considering migration is enhanced by 43 per cent if an actor considers his or her opportunities to be much better elsewhere. Additionally, all life-course events trigger considering migration, except from experiencing separation. Typical events at the transition to adulthood, namely the completion of school, moving out of the parental home and starting higher education or an apprenticeship, and completing studies and entering the labour market, significantly trigger considering migration. The same is true for occupational change, starting a family, and the moving away of friends or relatives. These events activate norms and goals with regard to career, family life, and social embeddedness.

For planning migration (Model 2a), interesting differences are observed compared to just considering it. Among the individual and social resources, having a partner who supports or undermines the move is similarly important as for the previous stage, but social embeddedness in form of home-ownership, a workplace at the current place of living, and spatially concentrated friendship networks do play no role for entering the planning stage, conditional on considering migration as a possible way to act. The educational level is not important for planning migration, but migration experience is. Those who have experienced at least one move beyond the city boundaries are more likely to decide in favour of migration and to make concrete plans for putting their intention into action. Migration experience might enhance skills for planning effectively and confidence in personal adaptability after migration. The probability of planning migration decreases with age. This finding is well in-line with the

strand of research that shows a shrinking probability of migration with age (Bernard, Bell and Charles-Edwards 2014), and it adds to this research by attributing this influence to the planning stage. Additionally, some life-course events are estimated to especially trigger planning migration. These are events connected with the transition to adulthood. If actors consider migration, experiencing completing school and entering the labour market significantly increases the probability that actors will opt in favour of migration. Additionally, the moving away of friends increases the probability of planning migration to a similar extent as considering it.

Models 2b and 2c in Table 3 show that life-course events lose some of their significance but are still remarkably influential when facilitators at the destination are introduced. Having relatives, friends or acquaintances at the destination significantly enhances the probability of planning the move by 7 per cent, net of the other influences presented above. But the importance of social networks at the destination vanishes when having a workplace, a study or apprenticeship place, or a dwelling at the destination is introduced. Each of these facilitators increases the probability of planning migration by 12 percent or more. This finding supports the interpretation that having social ties at the destination help (prospective) migrants to find work and lodging, what triggers their decision in favour of migration and planning the move.

- Table 3 -

For realizing migration (Model 3a) neither perceived opportunities at the destination nor facilitators connected with those opportunities are still relevant – with the exception that they might be relevant if they are experienced or cancelled unplanned and at short notice, which is sometimes the case with opportunities for work or studying, and which might be more often the case with partnership dissolution. All other events that indicate life-course transitions and

related facilitators at the destination are only relevant for earlier stages of migration decision-making.

Model 3b shows that structural constraints at destination areas are highly relevant for realizing migration plans. In the case of this sample from two German cities, heading for a destination in East Germany or abroad is more complicated than heading for a destination in West Germany, probably because opportunities for work are not so numerous in East Germany and at the destinations abroad the respondents want to move to. According to model 3c the constraining effect of a destination abroad is slightly overestimated, as panel attrition among those (potential) migrants was high. This interpretation is supported by the finding that an immigration background is estimated to diminish the probability of realizing migration significantly in the Models 3a and 3b, which do *not* account for selectivity. Immigrants do appear to realize migration plans less often, but this has less to do with immigrant status as a personal characteristic than with structural constraints at their destinations abroad. As model 3c shows, difficulties in realizing migration also increase with distance to destination.

Model 3c is a probit model of realizing migration with sample selection of participating in the second survey wave to account for potential bias due to panel attrition. The selection equation shows that apart from personal interest in the study three predictors diminish the likelihood of participating in the second survey wave significantly with $p < 0.05$ (not displayed). Heading towards another country cuts the probability of participating in the second survey wave in half, and having a workplace at the destination diminishes it by 40 per cent. This is understandable, as it was not possible to track respondents who moved at short notice if they neither reported their email address nor their new telephone number at the destination. Additionally, marriage or childbirth halves the probability of participating in the second survey wave. It might be the case that for those respondents the topic of the survey – migration beyond the city boundaries – was less interesting, because starting a family often

coincides with short-distance moves (Kulu 2008). According to the fit statistics of model 3b and 3c, the more simple binomial logistic regression model 3b is preferable over the more complicated model 3c with sample selection: The likelihood ratio test of model 3c indicates that the two equations – realizing migration and participating in the second survey wave – are *not significantly dependent* on each other (rho = -0.39, chi^2 = 0.80, p = 0.37), and the model is only significant at the margin, with p = 0.058. But there are also good reasons for preferring model 3c over 3b: First, the relatively low significance of model 3c should not be over-interpreted, because the number of cases is with N = 339 rather low for a two equation model. Second and more importantly, the above mentioned three substantial predictors that were found to be relevant for participating in the second survey wave are also relevant for the outcome in question, as they are probably closely connected to structural opportunities and constraints in the housing and job markets. Third, model 3c predicts the overall probability of realizing migration better than model 3b. This is reflected in the overall margins of the constant, which is 0.512 in model 3c but only 0.298 in model 3b. According to model 3c the average probability of realizing migration among planners is only slightly underestimated with 51 per cent compared to the empirical probability of 54 per cent (Kley and Huinink 2011), whereas according to model 3b it would be strongly underestimated. Therefore, in the following additional results of model 3c will be interpreted.

Model 3c in Table 3 shows that individual resources and social support are relevant for realizing migration. These findings are in-line with the theoretical expectations, and most of them replicate earlier results (see section 2.2). The probability of putting migration plans into action rises with income. Being a goal-oriented person also helps in realizing migration intentions, which is a new finding. Having a partner does not deter people from moving under the condition that they have already decided in favour of migration, and if the partner is in favour of moving, realizing migration is strongly supported. This finding supports the view

that couples bargain in the course of migration decision-making, and – once the decision in favour of migration is fallen – jointly strive for realizing it. Correspondingly, having all friends concentrated at the current place of residence does diminish the probability of putting migration intentions into action. But having children is a far stronger constraint. Although life-course events normally influence migration decision-making and not realizing migration, there is one exception. Partnership dissolution is exclusively a trigger for realizing migration, but not for migration decision-making. This finding supports the interpretation that people do not consider and plan migration primarily because they are simply unhappy with their partner or spouse, but because they strive to realize life-course goals in which a partner may play an important part. If actors arrive at the conclusion that they could reach their goals better elsewhere and decide in favour of migration, a partnership that undermines this course of action or goal fulfilment is terminated. Accordingly, perceived opportunity differentials are no longer relevant for putting migration plans into action, because they are an essential determinant of migration decision-making.

4. Discussion and conclusion

Common models of migration decision-making and behaviour locate facilitators and constraints at the end of the decision process as intervening factors between the intention to move and migration behaviour. Usually, unforeseen constraints and facilitators are named as ad hoc explanations for unexpected stayers, that is to say respondents who did not move despite reporting an intention to do so. But from a theoretical point of view this practice is unsatisfactory, because the share of unexpected stayers is normally rather high. This study aims at contributing to the state of research by hypothesizing possible constraints and facilitators within a three-stage model of migration based on general psychological theories of

decision-making and subsequent behaviour, and by testing theoretical expectations with empirical data of a tailor-made panel survey.

The Theory of Planned Behaviour (Ajzen 1985; Fishbein and Ajzen 2010) serves as the reference point for a model of migration decision-making and behaviour, because it is a well-developed general theory for explaining the formation of intentions and subsequent action. Within this framework constraints and facilitators are expected to undermine or trigger action pursuit because they influence actual control over the intended behaviour. Constraints and facilitators are intervening factors between intention and behaviour and comprise mainly environmental factors that are located outside the actor. Along with the skills and abilities of the actor, environmental factors may also influence perceived behavioural control, which in turn influences forming an intention, but this indirect path is assumed to be weak compared to the direct path which disturbs putting intentions into action. This framework is enriched by the Rubicon model (Heckhausen 1991; Gollwitzer 1996) which also aims at explaining intention formation and action, but focuses more strongly on the process of decision-making. On the basis of these theories a three-stage model of migration is suggested, which follows the sequence 'considering– planning– realizing migration' (cf. Kalter 1997; Kley 2011).

This contribution suggests widening our understanding of facilitators and constraints by understanding migration decision-making as a process in that perceived behavioural control is improved gradually until the decision in favour of migration is fallen – or, in case this improvement does not take place – the idea of migration is abandoned. The results show that life-course events in connection with opportunities, social support, and an actor's resources facilitate or constrain migration decision-making and realizing migration specifically. Life-course events like completing school, an apprenticeship or studies, changing jobs, or the moving away of friends facilitate migration decision-making, because they loosen social bonds at the current place of residence. Opportunities at the destination, namely having a

workplace there, having a place in higher education or an apprenticeship there, and having a dwelling there, then trigger deciding in favour of moving. Having relatives, friends or acquaintances at the destination was found to be strongly correlated with those facilitators. Furthermore, having own migration experience and having a partner who supports the migration plans increase the probability of deciding in favour of migration significantly. As these influences on migration decision-making were detected over and above the influence of perceived opportunity differentials between the current place of living and a possible destination, which correspond to positive attitudes toward migration, all three aspects of the Theory of Planned Behaviour were found to be relevant for migration decision-making.

Influences on the last stage, realizing migration, are markedly different to those on the previous stages. Life-course events and opportunities at the destination normally do *not* play a role, with two exceptions. Separation from one's partner and finding a workplace at the destination were found to trigger unexpected moves. But the areas of destination were found to be influential. This finding supports the views that suggest a lack of opportunities at the destination - which might appear exclusively in the domain of housing or other domains - might constrain actors from realizing their moving plans. Additionally, distance as an indicator for moving cost is influential. Furthermore, personal resources in form of income and personality traits were found to facilitate realizing migration, whereas they do *not* play a role for migration-decision making. Additionally, social ties were found to be influential again. Having a partner is no longer a constraint for moving conditional on having decided in favour of the move, and having a partner who wants to move facilitates realizing it significantly. But children in the household were found to be a constraint for putting migration plans into action. This might have to do with difficulties in finding places in day-care or school, and with children's opposition to their parents' plans in case they were not involved enough in migration decision-making of the family.

References

Achenbach, R. In press. *Return Migration Decisions: A Study on Highly Skilled Chinese in Japan.* Springer VS.

Ajzen, I. 1985. From intentions to actions: a theory of planned behaviour, in J. Kuhl and J. Beckmann (eds), *Action Control: From Cognition to Behavior*. Heidelberg: Springer, pp. 11–39.

Amit, K. and I. Riss. 2013. The duration of migration decision-making: moving to Israel from North America, *Journal of Ethnic and Migration Studies* 39(1): 51–67. doi:10.1080/1369183X.2013.723246.

Andersen, H. S. 2008. Why do residents want to leave deprived neighbourhoods? The importance of residents' subjective evaluations of their neighbourhood and its reputation, *Journal of Housing and the Built Environment* 23(2): 79–101. doi:10.1007/s10901-008-9109-x.

Aybek, C., J. Huinink and R. Muttarak. 2015. Migration, spatial mobility, and living arrangements: an introduction, in C. Aybek, J. Huinink and R. Muttarak (eds), *Spatial Mobility, Migration, and Living Arrangements*. Heidelberg: Springer, pp. 1–19.

Beauchemin, C., P. Sakho, B. Schoumaker and M.-L. Flahaux. 2014. New patterns of migration between Senegal and Europe, *MAFE Working Paper,* 21.

Bernard, A., M. Bell and E. Charles-Edwards. 2014. Improved measures for the cross-national comparison of age profiles of internal migration, *Population Studies* 68(2): 179–195. doi:10.1080/00324728.2014.890243.

Clark, W. A. V. and Y. Huang. 2003. The life course and residential mobility in British housing markets, *Environment and Planning A* 35(2): 323–339. doi:10.1068/a3542.

Coulter, R. 2013. Wishful thinking and the abandonment of moving desires over the life course, *Environment and Planning A* 45(8): 1944–1962. doi:10.1068/a45314.

Coulter, R., M. Ham and P. Feijten. 2012. Partner (dis)agreement on moving desires and the subsequent moving behaviour of couples, *Population, Space and Place* 18(1): 16–30. doi: 10.1002/psp.700.

Courgeau, D. 1985. Interaction between spatial mobility, family and career life-cycle: A French survey. *European Sociological Review* 1: 139–162.

Dalen, H. P. van and K. Henkens. 2013. Explaining emigration intentions and behaviour in the Netherlands, 2005-10, *Population Studies* 67(2): 225-241. doi:10.1080/00324728.2012.725135.

Dubin, J. A., and D. Rivers. 1989. Selection bias in linear regression, logit and probit models, *Sociological Methods & Research* 18(2-3): 360–390. doi:10.1177/0049124189018002006

Esipova, N., J. Ray and A.Pugliese. 2011. Gallup world poll: the many faces of global migration, *IOM Migration Research Series,* 43.

Fishbein, M. and I. Ajzen. 2010. *Predicting and Changing Behaviour*. New York: Psychology Press.

Gabler, S., S. Häder and J. Hoffmeyer-Zlotnik (eds). 1998. *Telefonstichproben in Deutschland*. Opladen: Westdeutscher Verlag.

Gollwitzer, P. M. 1996. The volitional benefits of planning, in P. M. Gollwitzer and J. A. Bargh (eds), *The Psychology of Action: Linking Cognition and Motivation to Behavior*. New York: Guilford Press, pp. 287–312.

Gollwitzer, P. M. and J. A. Bargh (eds). 1996. *The Psychology of Action: Linking Cognition and Motivation to Behavior*. New York: Guilford Press.

Groot, C. de, C. H. Mulder and D. Manting. 2011. Intentions to move and actual moving behaviour in the Netherlands, *Housing Studies* 26(3): 307–328. doi:10.1080/02673037.2011.542094.

Haug, S. 2008. Migration networks and migration decision-making, *Journal of Ethnic and Migration Studies* 34(4): 585–605. doi:10.1080/13691830801961605.

Heckhausen, H. 1991. *Motivation and Action*. New York: Springer.

Huinink, J. and S. Kley. 2008. Regionaler Kontext und Migrationsentscheidungen im Lebensverlauf, in F. Kalter (ed), *Migration und Integration*: *Sonderheft 48 der Kölner Zeitschrift für Soziologie und Sozialpsychologie*. Wiesbaden: VS, pp. 162–184.

Huinink, J., S. Vidal and S. Kley. 2014. Individuals' openness to migrate and job mobility, *Social Science Research* 44: 1–14. doi:10.1016/j.ssresearch.2013.10.006.

Jong, G. de. 2000. Expectations, gender, and norms in migration decision-making, *Population Studies* 54(3): 307–319.

Jong, G. de and J. Fawcett. 1981. Motivations for migration: an assessment and a value-expectancy research model, in G. de Jong and R. W. Gardner (eds), *Migration Decision Making. Multidisciplinary Approaches to Microlevel Studies in Developed and Developing Countries*. New York: Pergamon Press, pp. 13–58.

Kalter, F. 1997. *Wohnortwechsel in Deutschland: Ein Beitrag zur Migrationstheorie und zur empirischen Anwendung von Rational-Choice-Modellen*. Opladen: Leske + Budrich.

Kan, K. 1999. Expected and unexpected residential mobility, *Journal of Urban Economics* 45(1): 72–96. doi:10.1006/juec.1998.2082.

Klabunde, A. and F. Willekens 2016. Decision-Making in Agent-based Models of Migration. State of the Art and Challenges. *European Journal of Population* 32: 73–97.

Kley, S. 2009. *Migration im Lebensverlauf: Der Einfluss von Lebensbedingungen und Lebenslaufereignissen auf den Wohnortwechsel*. Wiesbaden: VS.

Kley, S. 2011. Explaining the stages of migration within a life-course framework, *European Sociological Review* 27(4): 469–486. doi:10.1093/esr/jcq020.

Kley, S. 2013. Migration in the face of unemployment and unemployment risk: a case study of temporal and regional effects, *Comparative Population Studies* 38(1): 109–136. doi:10.4232/10.CPoS-2013-04en.

Kley, S. and J. Huinink. 2011. *Beschreibung der Studie "Migrationsentscheidungen im Lebensverlauf",* ZA5228 .

Kley, S. and C. H. Mulder. 2010. Considering, planning, and realizing migration in early adulthood. The influence of life-course events and perceived opportunities on leaving the city in Germany, *Journal of Housing and the Built Environment* 25(1): 73–94. doi:10.1007/s10901-009-9167-8.

Kulu, H. 2008. Fertility and spatial mobility in the life course: evidence from Austria, *Environment and Planning A* 40(3): 632–652. doi:10.1068/a3914.

Landale, N. and A. Guest. 1985. Constraints, satisfaction and residential mobility: Speare's model reconsidered, *Demography* 22(2): 199–222.

Lu, M. 1998. Analyzing migration decisionmaking: relationships between Analyzing migration decisionmaking: relationships between residential satisfaction, mobility intentions, and moving behaviour, *Environment and Planning A* 30(8): 1473–1495. doi:10.1068/a301473.

Mayer, K. U. 2009. New directions in life course research, *Annual Review of Sociology* 35: 413–433. doi:10.1146/annurev.soc.34.040507.134619.

McHugh, K. E. 1984. Explaining migration intentions and destination selection, *The Professional Geographer* 36(3): 315–325. doi:10.1111/j.0033-0124.1984.00315.x.

Mood, C. 2010. Logistic regression: why we cannot do what we think we can do, and what we can do about it, *European Sociological Review* 26(1): 67–82. doi:10.1093/esr/jcp006.

Rossi, P. H. 1980 [1955]. *Why Families Move*. Beverly Hills, London: Russell Sage.

Speare, A., S. Goldstein and W. H. Frey. 1975. *Residential Mobility, Migration, and Metropolitan Change*. Cambridge: Ballinger.

Willekens, F. 1985. Migration and development: a micro-perspective. *NIDI Working Paper,* 62.

Willekens, F. 2014. Demographic transitions in Europe and the world. *MPIDR Working Paper,* 2014-004. Rostock.

Winship, C. and L. Radbill. 1994. Sampling weights and regression analysis, *Sociological Methods & Research* 23(2): 230–257. doi:10.1177/0049124194023002004.

[i] In the case of international migration, legal norms and the regulation of movement are important constraints for migration. It was shown, for instance, that migrants adapt to restrictive policy by altering their destination for moving (Beauchemin et al. 2014). With the data at hand, it is not possible to analyse this group of opportunities.
[ii] Data from the third wave is not necessary to test whether respondents were able to carry out their plans to migrate within the next 12 months as the follow-up interviews of the second wave took place within this time-span.
[iii] For the relative importance of opportunities in different life domains see Kley 2011.

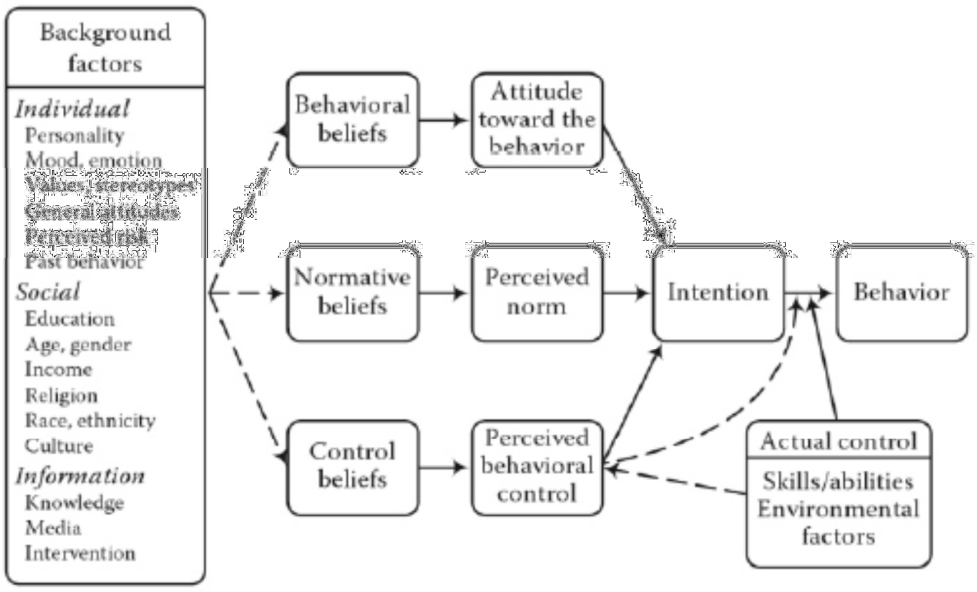

Figure 1 Schematic presentation of the reasoned action model

Source: Fishbein and Ajzen 2010: 22.

Table 1 Percentages of expected movers and unexpected stayers in selected survey studies

		Stayers and movers among all respondents who …		
		… were on the first or only stage of decision-making	… were on the second stage of decision-making	Study (N persons)
Questions		Wish, like, desire, think about, consider, might, prefer moving	Intend, plan, expect moving	
If there were no housing shortage, would you like to stay on here or would you like to move from this place? Are you very anxious to stay here (move out) or doesn't it matter too much to you? (Answers combined to 4 categories)[1]	Stayers Movers	74 26	20 80	Rossi 1955 (901)
How likely or unlikely is the following for you? Your moving away from [county] to another area within the next eight months? (Likert scale with 7 categories)[2,3]	Stayers Movers	99 1	76 24	McHugh 1984 (167)
Have you ever thought about leaving here to go and live somewhere else? Do you expect to move from here in the next seven or eight months?[2]	Stayers Movers	78 22	70 30	Sly & Wrigley 1985 (1046)
Are you currently thinking seriously about moving from this residence?[4]	Stayers Movers	61 39	-	Landale & Guest 1985 (1351)
Have you recently thought seriously about moving?[5] Do you plan to move within the following twelve months?	Stayers Movers	81 19	60 40	Kalter 1997 (1786)
Do you think you might move in the next couple of years?[6]	Stayers Movers	53 47	-	Kan 1999 (3864)
Do you want to move within the next two years? (5 categories)[2,7]	Stayers Movers	79 21	50 50	De Groot at al. 2010 (12832)
If you could choose, would you stay here in your present home or would you prefer to move somewhere else?[8]	Stayers Movers	82 18	-	Coulter 2013 (13341)
Are you planning to emigrate in the near future? (Likert scale with 5 categories)[2, 9]	Stayers Movers	84 16	54 46	Van Dalen & Henkens 2013 (1489)
Have you recently thought about moving away from [city] to live somewhere else? Are you planning to leave [city] within the next twelve months?[4]	Stayers Movers	95 5	46 54	This study; cf. Kley & Huinink 2011 (1673)

[1] Migration behaviour was estimated eight months after the initial interview.
[2] Strong intention to move and less strong intention to move are distinguished. Although the authors do not treat the differences in strength of intentions as stages in a decision-making process the results are displayed as such to enhance the comparability with three-stage models.
[3] Respondents were also asked about moving within a period of three years, but results are not displayed.
[4] Information about migration behaviour come from follow-up interview after one year.
[5] If the answer was 'yes', respondents were asked whether they were considering residential relocation within their current home town, whether they were considering migration, or whether they were considering both. If the answer was 'both' they were asked which option they were considering more. The percentages refer to migration of respondents in West Germany.
[6] Percentages are calculated on the basis of person-years, over a 2 year span.

[7] Information about migration behaviour comes from census data within a 4 year span.
[8] Percentages are calculated on the basis of person-years, over 1 year spans.
[9] Information about migration behaviour comes from census data within a 5 year span.

Table 2 Distribution of destination characteristics among migration decision-makers (per cent)

	Total Sample	Current place of living		Stage of decision-making	
		Magdeburg	Freiburg	Considering	Planning
Facilitators at destination:					
Relatives, friends, acquaint.	35	33	38	31	47
Study/apprenticeship place	5	3	7	2	14
Dwelling	13	10	15	8	25
Destination in:					
West Germany	26	21	31	21	39
East Germany	7	13	1	6	10
Another country	12	8	16	10	17
Do not know	55	58	51	63	33
Total (row percentage)	100	51	49	72	28
Total (N)	1196	595	601	857	339

Source: Data from the study "Migration decisions in the life course", 2006/07, per cent design-weighted.

Table 3 Influences on Considering, Planning and Realizing Migration

	Model 1 Considering	Model 2a Planning	Model 2b Planning	Model 2c Planning	Model3a Realizing	Model 3b Realizing	Model 3c Realizing
City: Freiburg (vs. Magdeburg)	-.006	.010	.006	-.014	.006	-.005	-.030
Female	.008	.028	.028	.043*	.007	.034	.029
Age (18-50)	-.002	-.007***	-.006***	-.005***	-.008	-.008	-.012*
Age squared	-.000	-.000	-.000	-.000*	-.000	-.000	-.000
Higher education	.036*	.007	.007	-.018	.047	.032	-.056
Income (log.)	-.004	.009	.006	.002	.097**	.088***	.130***
Immigration background	-.019	-.082	-.078	-.060	-.189**	-.185**	-.104
Migration experience	.016	.084**	.078**	.061**	-.005	.008	.141
Personality: goal-oriented	-.009	.008	.006	-.004	.057**	.058**	.074**
Couple household	-.090***	-.074**	-.067**	-.049*	.152**	.126**	.077
Partner wants move	.121***	.100***	.095***	.065**	.078*	.099*	.217***
Child in household	-.032	.010	.007	.002	-.236***	-.260***	-.250**
Homeowner	-.041**	-.013	-.015	-.017	.085	.079	-.039
Workplace in town	-.054***	-.033	-.034	-.021	.045	.049	-.026
Concentration of friends	-.025***	-.015	-.012	-.012	-.070***	-.079***	-.082***
Perceived opportunities	.434***	.249***	.226***	.201***	-.008	-.078	-.213
Life-course events							
(1) Completing school	.066**	.133***	.123***	.102***	.147**	.100	.093
(2) Entering labour market	.092***	.152***	.157***	.133***	-.099*	-.069	-.035
(3) Occupational change	.069***	-.015	-.017	-.012	-.055	-.067	-.075
(4) Starting a family	.071*	.027	.031	.029	-.076	-.087	.060
(5) Moving away of friends	.136***	.142***	.135***	.123***	.081	.079	.124*
(6) Separation	.076	-.021	-.018	-.021	.192**	.271***	.291**
Facilitators at destination							
Relatives, friends, acquaint.			.070***	-.014	-.037	-.059	-.096
Workplace				.173***	.015	.032	.167**
Study/apprenticeship place				.252***	-.006	.062	.129
Dwelling				.115***	.034	.003	.001
Destination in: (ref.: West Germany)							
East Germany						-.181**	-.223*
Another country						-.273***	-.230**
Do not know						-.108	-.118
Distance to destination						-.024	-.048*

Margin of constant	.348***	.285***	.285***	.285***	.299***	.298***	.512***
Number of cases	2408	1205	1205	1205	344	339	339
Degrees of freedom	23	23	24	27	27	31	31
McFadden Pseudo R^2	.221	.188	.194	.255	.142	.197	-
Model Sign.	.000	.000	.000	.000	.000	.000	.058

*** p < 0.01, ** p < 0.05, * p < 0.10. Average marginal effects.

Notes: Life-course events comprise: (1) completing school, leaving the parental home, starting studies or apprenticeship; (2) completing studies, entering the labour market; (3) marriage or childbirth; (4) the moving away of friends or relatives; (5) end of partnership; (6) occupational change. Information on income missing controlled for, but not displayed.

Model 1: Logistic regression of considering migration, design weighted, robust standard errors applied.

Model 2a – 2c: Logistic regression of planning migration conditional on having it considered.

Model 3a, 3b: Logistic regression of moving conditional on having it planned.

Model 3c: Probit model of moving conditional on having it planned, with sample selection for participating in the 2nd wave. Selection equation omitted; uncensored/censored observations: 219/120. LR test of independent equations, $Chi^2 = 0.80$, $p = 0.371$.

Source: Data from the study "Migration decisions in the life course", 2006/07.