

# Population Studies

## A Journal of Demography

ISSN: 0032-4728 (Print) 1477-4747 (Online) Journal homepage: <http://www.tandfonline.com/loi/rpst20>

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To cite this article: Stefanie Kley (2017) Facilitators and constraints at each stage of the migration decision process, Population Studies, 71:sup1, 35-49, DOI: [10.1080/00324728.2017.1359328](https://doi.org/10.1080/00324728.2017.1359328)

To link to this article: <http://dx.doi.org/10.1080/00324728.2017.1359328>



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Published online: 24 Oct 2017.



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# Facilitators and constraints at each stage of the migration decision process

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*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 paper applies the Theory of Planned Behaviour, enriched by the Rubicon model, to test specific hypotheses about distinct effects of facilitators and constraints on specific stages of migration decision-making and behaviour. The data come from a tailor-made panel survey based on random samples of people drawn from two German cities in 2006–07. The results show that in conventional models the effects of facilitators and constraints on migration decision-making are likely to be underestimated. Splitting the process of migration decision-making into a pre-decisional and a pre-actional phase helps to avoid bias in the estimated effects of facilitators and constraints on both migration decision-making and migration behaviour.*

**Keywords:** migration; residential mobility; decision-making; behaviour; perception; theoretical models; Germany

## Introduction

The Theory of Planned Behaviour (TPB) (Ajzen 1985; Fishbein and Ajzen 2010) is a general psychological theory about human decision-making and behaviour that has been applied successfully in empirical migration research and agent-based models of migration (Klabunde and Willekens 2016). It states that intentions are the products of beliefs that one will attain valued goals as a consequence of a certain action, like migration. According to the theory, intentions are the primary determinant of behaviour. But, in practice, people often do *not* behave in accordance with their reported intentions. In a worldwide poll, the Gallup Institute found that less than one-tenth of the respondents who desired to permanently migrate to another country were planning to make the move in the next year (Esipova et al. 2011). In addition, 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. The gap between migration intentions and behaviour is normally seen as a consequence of various intervening factors that may come between migration intentions

and behaviour (Ajzen 1985). Although facilitators and constraints play an important role in migration theory and research, their influence during the course of migration stages has seldom been analysed systematically.

This paper aims to improve agent-based models of migration by splitting the stage of migration decision-making into two sub-stages: *considering* migration and *planning* migration (Kalter 1997; Kley 2011). The resulting three-stage model of migration decision-making and behaviour is based on the TPB, complemented by another psychological approach to purposeful action, the Rubicon model (Heckhausen 1991). It meets a long-standing objection against decision-based migration theories, namely, that not all people are ‘at risk’ of taking a decision about migrating or staying, but only those who are considering migration as a possible way to act (see, e.g., Speare 1974). Within the three-stage model, *considering* migration is conceptualized as a first, pre-decisional phase, in which moving desires are developed but easily dropped again (Kley 2011). Explicitly modelling a pre-decisional stage of migration allows us to determine which actors are at risk of migration decision-making. The second,

pre-actional phase, *planning* migration, starts when the decision in favour of migration is taken and an intention is formed. *Realizing* migration (actual behaviour) is then seen as the third, actional phase.

This paper contributes to the current body of research by revealing systematic variation in constraining and facilitating factors at each stage of migration decision-making, and by highlighting the pitfalls of less precise models: in such models, facilitators of and constraints to migration decision-making are likely to be underestimated, whereas their influence on *realizing* migration is likely to be overestimated.

In the following sections, differences in the underlying concepts of decision-making in migration research inspired by the TPB are described first, and the three-stage model of *considering*, *planning*, and *realizing* migration is introduced. Then expectations about specific constraining or facilitating factors at each stage of migration decision-making are derived from the current state of research. The third section describes the data from a tailor-made panel study based on random samples of the population aged 18–50 years in two German cities ( $N = 2,396$ ). The results are then presented for each stage of migration decision-making and behaviour, paying special attention to their possible stochastic interdependencies. The paper concludes with a discussion of the findings in light of the TPB.

## Theory and state of research

### *The process of migration*

Nowadays it is widely acknowledged that migration is best understood as a time-consuming process and not merely an event. This understanding implies that theorizing the 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 classic way to prove theoretical models in the social sciences is by estimating the assumed influences with data from field experiments or population surveys. If data about individual perceptions, attitudes, and opinions are needed, there is no way to avoid asking people (see Fishbein and Ajzen 2010, pp. 456ff.), 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 are needed, because it is first necessary to ask about intentions and, later, to check whether the intended behaviour

occurred. 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 (a) the process of migration decision-making may take a long time (Amit and Riss 2013); (b) events may alter its course (Achenbach 2017); and (c) migrants change their residence, which complicates their follow-up over time. These difficulties may explain why studies using multistage models are still rare in migration research.

Studies that 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 TPB, which was first developed under the name Theory of Reasoned Action (Ajzen 1985; Fishbein and Ajzen 2010). As noted in the ‘Introduction’, the theory states that intentions are the products of beliefs that one will attain valued goals as a consequence of a certain action, like migration. An intention to migrate is formed if the benefits of migration are perceived as considerably higher than the costs. Intentions are, therefore, the primary determinant of behaviour. According to this model, it is likely that intentions will result in corresponding behaviour, because they are the end product of positive beliefs and perceptions on the grounds of personal and societal characteristics. Therefore, the theory locates the main intervening factors that may come between intention and behaviour as being outside the individual, namely, the level of actual control over migration. Although one reason for low actual control might lie in a misperception of individual skills and abilities, and another in environmental factors during migration decision-making, these influences are considered to be low compared with external factors intervening between migration intention and behaviour (Fishbein and Ajzen 2010, p. 22), such as not finding a job or adequate housing.

Empirically, the extent to which actors seem to be constrained from putting their moving intentions into action varies strongly with the wording of survey questions, the spatial type of move, and the time frame applied both to questions about the intended move and the follow-up of actual moves. Table 1 depicts the percentages of expected movers and unexpected stayers among people who expressed some intention to move, from selected studies in a range of countries. The share of unexpected movers

**Table 1** Percentages of expected movers and unexpected stayers among those who expressed some intention to move, selected survey studies

Survey questions		Stayers and movers among those who ...		Realization measured after ... months	Study <i>N</i>
		... were in the first or only stage of decision-making <sup>1</sup>	... were in the second stage of decision-making <sup>2</sup>		
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 four categories)	Stayers	74	20	8	Rossi ([1955] 1980) 901
	Movers	26	80		
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 seven categories) <sup>3,4</sup>	Stayers	99	76	8	McHugh (1984) 167
	Movers	1	24		
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? <sup>3</sup>	Stayers	78	70	9	Sly and Wrigley (1985/86) 1,046
	Movers	22	30		
Are you currently thinking seriously about moving from this residence?	Stayers	61	–	12	Landale and Guest (1985) 1,351
	Movers	39			
Have you recently thought seriously about moving? <sup>5</sup> Do you plan to move within the following twelve months? <sup>5</sup>	Stayers	81	60	12	Kalter (1997) 1,786
	Movers	19	40		
Do you think you might move in the next couple of years?	Stayers	53	–	24	Kan (1999) 3,864
	Movers	47			
Do you want to move within the next two years? (five categories) <sup>3</sup>	Stayers	79	50	48	De Groot et al. (2011) 12,832
	Movers	21	50		
If you could choose, would you stay here in your present home or would you prefer to move somewhere else?	Stayers	82	–	12	Coulter (2013) 13,341
	Movers	18			
Are you planning to emigrate in the near future? (Likert scale with five categories) <sup>3</sup>	Stayers	84	54	60	Van Dalen and Henkens (2013) 1,489
	Movers	16	46		
Have you recently thought about moving away from [city] to live somewhere else? Are you planning to leave [city] within the next twelve months?	Stayers	95	46	12	Kley and Huinink (2011) 1,673
	Movers	5	54		

<sup>1</sup>Question wording: wish, like, desire, think about, consider, might, prefer to move.<sup>2</sup>Question wording: intend, plan, expect to move.<sup>3</sup>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.<sup>4</sup>Respondents were also asked about moving within a period of three years, but results are not displayed.<sup>5</sup>The percentages refer to migration of respondents within West Germany.

among those who reported no moving intention is not displayed. This information would be necessary for a comprehensive assessment of the forecasting strength of the respective models, but for highlighting variations in question wording and their outcomes, this brief overview can be considered sufficient. In calculating the percentages, the respondents not reached in a subsequent panel wave were excluded; this results in a conservative estimate of expected movers, because the percentage of migrants among those respondents is probably relatively high (see Kley and Huinink 2011). 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 for low determination are presented in the column for a first stage of decision-making, and the percentages for high determination are presented in the column for a second stage.

Table 1 demonstrates that in all studies where two stages could be distinguished, the percentage moving is higher at the second stage than the first stage, although the percentages of expected movers and unexpected stayers vary greatly across the studies. In Rossi's ([1955] 1980) study, intentions at the second stage of decision-making predicted moving behaviour most precisely; it referred to all kinds of moves and followed up actual 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 ([1955] 1980), for instance, gathered information about the individual *determination* with which moving was pursued.

The variations in question wording in the studies depicted in Table 1 and in other studies are at least partly rooted in different theoretical concepts of decision-making. Some studies measure mobility intentions either as expectations to move (e.g., Rossi [1955] 1980; McHugh 1984; Kan 1999) or as mobility plans (Andersen 2008; Van Dalen and Henkens 2013). Others ask respondents about their thoughts, desires, or preferences on relocation (e.g., Speare et al. 1975; Landale and Guest 1985; Kalter 1997; Lu 1998; de Jong 2000; de Groot et al. 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). 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 ([1955] 1980) groundbreaking 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 TPB does not account for desires, which could be thought of as a precondition for intentions. But another psychological model of decision-making and subsequent behaviour does. The Rubicon model (Heckhausen 1991; Gollwitzer 1996) 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 (see 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 are 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 pursuit is then likely to yield the desired action outcome, in this case migration.

This understanding of the process of migration leads to the sequence '*considering-planning-realizing* migration' proposed by Kalter (1997), and which is referred to as the three-stage model of migration from now on. To complete the theoretical picture, an idea is needed of where the wishes and desires that initiate *considering* migration come from. These are the goals and values that people are striving to realize via migration (de Jong and Fawcett 1981), for instance, to improve occupational career prospects or to live close to a loved one. Therefore, within this model, migration is clearly understood as instrumental behaviour for realizing life course goals (see Willekens 1987, 2015; Aybek et al. 2015), which makes the model well suited for



the analysis of migration within a life course framework.

### *Facilitators and constraints in the migration decision process*

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 (Huinink et al. 2014). Other constraints can be expected to jeopardize planning to migrate, because they undermine preparations for migration and therefore the pursuit of goal completion. A third group of constraints is located between migration intention and behaviour, deterring actors from putting their plans into action. The TPB 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 (Fishbein and Ajzen 2010, p. 22).

Prior research reports three categories of constraints to and facilitators of migration: (1) opportunities that arise or not; (2) social support that may be present or not; and (3) the actor's resources that may be sufficient to overcome obstacles or not. These are described in more detail next.

*Opportunities.* Among the opportunities that facilitate moving, is an ample supply of housing (Rossi [1955] 1980, p. 162). Compared with renters, lower probabilities of moving have been found repeatedly for homeowners (Landale and Guest 1985; Kan 1999; Clark and Huang 2003; Coulter 2013), except for owners who wanted to rent a dwelling (de Groot et al. 2011); these findings are normally attributed to constraints in the housing market. De Groot et al. (2011) found in the Netherlands, for instance, that moving intentions were more likely to be realized if the destination was at the national peripheries rather than the densely populated Randstad, an intermediate zone, or a foreign country. Additionally, private renters were found to be deterred from moving less often than social renters (Coulter et al. 2012; Coulter 2013), probably because the housing market for social renters is restricted more strongly. It can therefore be expected that having found a dwelling at the destination will trigger the planning and realization of the move. But it is also plausible to expect that homeowners will *consider* migration less often compared with renters because they have

invested more into and feel more strongly attached to their home.

The offer of opportunities for work or education might also be thought of as a facilitator of migration, because in the course of migration decision-making it is often uncertain whether such opportunities will arise. It has been shown that expected entry into the labour market, expected job change, and expected start of higher education or an apprenticeship can all trigger migration decision-making and behaviour (Kley 2009, 2011; Kley and Mulder 2010), but it remains unclear 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. For instance, an actor might anticipate changing jobs in the near future without having a new job contract at hand. It can be expected that having a job, a university place, or an apprenticeship at the destination will trigger planning to migrate at least as strongly as they will trigger actually moving, because in industrialized countries occupational reasons for moving are widespread and people will not normally prepare for moving without having concrete offers.

In the case of international migration, legal requirements and the regulation of movement are important constraints to migration. It has been shown, for instance, that migrants adapt to restrictive policy by altering their moving destinations (Beauchemin et al. 2014). With the data used in the current paper, it is not possible to analyse this group of opportunities.

*Social factors.* Facilitators and constraints in the form of the influence of significant others, like family members and friends, can be put under the umbrella term of social factors. Among the social reasons that have been found for unexpected moves are family size changes (Rossi [1955] 1980, p. 162; de Groot et al. 2011), namely, divorce or the birth of a child (see also Clark and Huang 2003; Kley 2011; Coulter 2013). Additionally, it has been found that having preschool or school-age children often hinders putting moving intentions into action (Coulter et al. 2012; Coulter 2013). But these findings are inconclusive, as other studies found no effects of childbirth or having children on realizing migration intentions (see, e.g., Kley 2011). It can be expected that other household members' reluctance to move may be a decisive constraint to deciding in favour of migration and to realizing individual migration plans; on the other hand, support from other

household members for an individual's moving desires can be expected to facilitate these steps (Kley 2009, 2011). Social networks outside the household have been found to facilitate migration, especially with regard to international migration (Haug 2008), because friends and relatives at a destination can give information and concrete help. With regard to the stages of migration decision-making, it can be expected that a spatially concentrated social network will deter actors from even considering migration, whereas the moving away of friends will trigger it (Kley and Mulder 2010). Correspondingly, having friends or relatives at the destination is expected to facilitate both deciding in favour of moving and realizing migration.

*Resources.* Individual resources may act as facilitators of or constraints to migration. It has been found that the probability of moving, among those who intend to move, increases with household income (Lu 1998; Clark and Huang 2003; de Groot et al. 2011; Coulter et al. 2012; Coulter 2013). Correspondingly, having no or very little income (Kley 2009, 2011) and not being employed (de Groot et al. 2011) have been found to deter people from moving, but there are also studies that have found no effect of income (see, e.g., Van Dalen and Henkens 2013). In this paper, I test whether individual income exerts an influence on putting migration plans into action, net of having a job and other facilitators at the destination.

It has been argued that personal migration experience might act as a resource too, because experienced people are normally more confident about managing the challenges of moving and also more adept in actually doing so (Haug 2008). In other words, migration experience is expected to increase perceived and actual control over goal completion. Correspondingly, it has been found that people with migration experience are more likely to put their moving intentions into action (de Jong 2000; Kley 2009, 2011; Kley and Mulder 2010). But directly measured personal traits of self-efficacy and sensation seeking were not found to be influential for realizing migration (Van Dalen and Henkens 2013). Accordingly, it is expected that personal migration experience will trigger the planning and realization of a move, whereas personality traits are not expected to be influential.

### **Data, method, and variables**

The tailor-made study 'Migration decisions in the life course' (Kley and Huinink 2011) offers the possibility

of testing 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 18–50 years in the first wave. Stratified random samples were drawn in two German cities, making use of random digit dialling according to the Gabler–Häder procedure (Gabler et al. 1998). The two cities, Magdeburg in East Germany and Freiburg in West Germany, were similar with regard to population size. Neither was located at a legal or natural border, nor within close proximity to another important city, but they were different with regard to economic prosperity and therefore local opportunity structures, for instance, with regard to jobs.

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 migrating beyond the city boundaries to live somewhere else. Those who answered affirmatively to this question were oversampled, and this group was asked whether they planned to leave the city within the next twelve months, following the time frame of a reference study by Kalter (1997). Information about whether migration actually took place was collected by follow-up interviews around 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 up to the twelve-month follow-up interview. The interviews at these three different points in time are denoted as the second wave. There was a third wave about 27 months after the initial interview, but these data are not part of this study, as they are not necessary for testing whether respondents were able to carry out their plans to migrate within the twelve-month timespan referred to in the original intentions question.

Initially, 2,410 interviews were conducted and 2,288 respondents (95 per cent) also agreed to participate in the follow-up panel; 1,673 people were followed up in the second-wave interviews. The response rates were 52 per cent in the first and 71 per cent in the second wave (Kley and Huinink 2011). The loss of cases due to item non-response was small; the number of cases was 2,396 for the estimation of *considering* and *planning* migration with data from the first wave, and 1,666 for the estimation of *realizing* a move using data from the second wave.

In the models presented in this paper, the dependent variables are an actor's probability of *considering*, *planning*, and *realizing* migration. Considering and planning migration refer to the two stages of migration decision-making; realizing migration refers to the third stage (movers vs. stayers). Within the 'stayers' group is a small group of inner-city movers ( $n = 36$ , that is, 2 per cent of  $N = 1,666$  respondents reached in the second wave). Inner-city movers are not treated as migrants because all relevant questions about perceived opportunities and facilitators were asked with regard to a specific destination beyond the city boundaries.

Taking the nested structure of the data into account and modelling the stochastic interdependencies between the stages of *considering*, *planning*, and *realizing* migration adequately is indeed a methodological challenge—especially when facilitators at the destination are taken into account. This is because only people who at least consider migration as a possible way to act can give coherent answers to questions about whether they already have relatives, friends, or acquaintances at the destination, whether they have a job or a study/apprenticeship place there, and whether they already have a dwelling there. Therefore, answers about facilitators at the destination are endogenous variables when estimating the probability of *considering* migration. Another challenge is that in modelling the stages of migration decision-making and behaviour, they are influenced largely by the same predictors. Such a model prevents the application of methods that allow control of stochastic interdependencies of the outcomes (stages) while demanding distinct predictors. Finding a predictor that exclusively influences *considering* migration but not *planning* it is not feasible, since *considering* migration is a prerequisite for *planning* it.

In this paper, the influences on each of the stages are estimated with probit regression, while varying the degree of control for possible stochastic interdependencies. Probit regression is used because, for the groups of models with a second equation, a probit link is computationally far less demanding than a logit link. First, the influences on *considering* migration are estimated with simple probit regression. Then, in a second group of models, the influences on *planning* migration are stepwise estimated with bivariate probit regression and seemingly unrelated probit regression (Greene 2012, pp. 732–55), taking into account both the influences on *considering* moving and facilitators at the destination.

In a third group of models, *realizing* migration is estimated by applying a similar strategy: estimating

the influence of facilitators at the destination and therefore taking *considering* moving into account, and controlling for having *planned* to move. Because the information about moving comes from the second panel wave, the problem of panel attrition must also be taken into account. Therefore, probit models with sample selection (Dubin and Rivers 1989) are applied to estimate the probability of *realizing* a move, conditional on the probability of participating in the second survey wave. It will be shown that, according to these models, 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.

To correct for sample stratification, design weights were applied in the descriptive analyses and in the models estimating migration decision-making. 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 an outcome variable and respondents considering a move have been over-sampled. In these situations, correcting for sample selection bias provides consistent estimates of the true regression slopes (Winship and Radbill 1994). The fact that weighting induces heteroscedasticity in the error terms was taken into account by estimating heteroscedastic consistent (robust) standard errors. When estimating migration behaviour, weighting is not necessary because the items of stratification, *considering* and *planning* a move, are included as predictors. The selective panel attrition among those who *considered* moving or *planned* to move was taken into account by simultaneously estimating the likelihood of the respondents' participation in the second wave.

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 predictors may be not self-explanatory:

- Variables measuring personal characteristics and resources: 'higher education' covers all respondents with a college or university



degree. 'Income' is personal income after deductions, per month; 12 per cent of the respondents did not report their income. In order not to lose these cases, multiple imputation procedures were applied. 'Immigration background' indicates whether the respondent was born outside the country or does not hold German citizenship. 'Migration experience' indicates whether the respondent had moved across the boundaries of the current place of residence at least once. Whether a respondent pursued his or her wishes persistently was measured on a seven-point Likert scale.

- Variables measuring social factors: whether respondents live in a 'couple household' indicates a fairly institutionalized partnership with responsibilities. In the sample, nearly all of the married people lived in a couple household but only 65 per cent of those who lived with a partner were 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 were 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.
- 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 will be different. Now I will ask you with regard to certain areas of life whether you think that they will probably be better after moving, the same, or worse. Would [...] be better, the same, or worse after moving?' The items were: your partnership/the possibility of finding a partner; your income; the possibility of pursuing hobbies and interests; your family life; your job situation; your health in the long run; contact with friends and acquaintances; and your standard of living. They were combined into an index ( $\alpha = 0.64$ ).
- Variables measuring the expectancy of attaining these goals: for an array of life course events, respondents were asked whether they had occurred since the beginning of the current year or whether they expected them to occur within the following six months. Events that were estimated to correlate were combined, so that by the end, six classes of life course events were 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) the end of a partnership. In addition, those who were considering migration and able to report a possible destination were asked whether they already had the following there: relatives, friends, or acquaintances; a job; a place in higher education or an apprenticeship; their own or a partner's dwelling.

## Results

Table 2 gives an overview of the distribution of destination characteristics among migration decision-makers. About one-third have relatives, friends, or acquaintances at the destination; 14 per cent have a job and 13 per cent have a dwelling there. Having a place in higher education or an apprenticeship at the destination is less common than having one of the other facilitators. Each of the 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. People who are at the *planning* stage report facilitators at the destination considerably more often than those at the *considering* stage.

The intended destinations of citizens of Magdeburg (East Germany) and Freiburg (West Germany) are also distinct. Respondents currently living in Magdeburg report destinations in East Germany considerably more often than their counterparts in Freiburg. Respondents from Freiburg more often report destinations in West Germany and abroad.

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 illustrate the effects of allowing for correlated errors between the stages and the effects of taking facilitators at the destination, which are endogenous to *considering* migration, explicitly into account. In the following discussion of results, differences in the effects of the three groups of facilitators and constraints introduced earlier on the stages of migration decision-making and behaviour will be highlighted: opportunities at the destination, social factors, and individual resources.

**Table 2** Distribution of destination characteristics among migration decision-makers (percentages) in two German cities

	Total sample <sup>1</sup>	Current place of living		Stage of decision-making	
		Magdeburg <sup>1</sup>	Freiburg <sup>1</sup>	Considering	Planning
<i>Facilitators at destination:</i> <sup>2</sup>					
Relatives, friends, acquaintances	35	33	38	31	48
Job	14	13	16	8	32
Place of study/apprenticeship	5	3	7	2	14
Dwelling	13	10	15	8	25
None of these	58	62	54	67	37
<i>Destination:</i>					
West Germany	26	21	31	21	40
East Germany	7	13	1	6	10
Another country	12	8	16	10	17
Do not know	54	58	51	63	33
Total (row percentage)	100	51	49	71	29
Total ( <i>N</i> )	1,199	596	603	855	344

<sup>1</sup>Per cent design-weighted.<sup>2</sup>More than one facilitator possible.

Source: First panel wave of the study 'Migration decisions in the life course', Germany, 2006.

For *considering* migration (Model 1), perceived opportunities at the destination are of utmost importance. Their influence is markedly higher on *considering* than on the following stages of migration, over and above that of experiencing life course events, which also have influence at the start of migration decision-making. Typical events at the transition to adulthood—namely, ‘completing 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, the moving away of friends or relatives, and partnership dissolution. Having social ties at the place of residence—namely, being a homeowner, having a workplace in town, and having spatially concentrated friendship networks—reduces the probability of *considering* migration significantly. Living with a partner, either married or cohabiting, normally reduces the likelihood of *considering* migration. But if this partner is in favour of moving, their influence more than outweighs the deterring effect of partnership status. Having at least one child in the household does not inhibit parents from thinking about moving. Individual resources are of minor importance, although people whose income is above the threshold of €500 net per month consider migration less often. Finally, those with higher educational levels are more open to migration.

With regard to *planning* migration (Models 2a and 2b), interesting differences are observed compared with just *considering* it: the most obvious results are

that perceived opportunities at a (possible) destination and social ties to the current place of living are less influential for deciding in favour of migration than for considering it. Whereas in Model 2a *considering* migration is not taken into account, in Model 2b a bivariate probit regression of *considering* and *planning* migration is estimated to allow for stochastic interdependencies between the two stages. Significant Wald tests indicate that the two equations of *considering* and *planning* migration are not statistically independent from each other (one exception is Model 2c); therefore, the estimates in Model 2a are probably biased. A comparison of Models 2a and 2b illustrates the direction of bias in models that miss taking a pre-intentional stage into account: the effects of life course events and a partner's influence on planning migration are likely to be underestimated. But the potential bias arising from not estimating a pre-intentional (*considering*) stage at all is far larger than the bias arising from misspecification of the intentions (*planning*) equation. When influences on migration decision-making are reported without taking the results of Model 1 into account, the effects of perceived opportunities, of some life course events and of social ties at the current place of residence on migration decision-making are strongly underestimated.

The interdependencies between the stages of migration decision-making are discussed next, and selected effects illustrated in Figure 1. According to the full Model 2d it appears that social embeddedness in the form of homeownership, a workplace at the current place of residence, and spatially

**Table 3** Facilitators and constraints of migration decision-making and behaviour in two German cities, 2006–07

	Model 1 <sup>1</sup>	Model 2a <sup>1</sup>	Model 2b <sup>2</sup>	Model 2c <sup>2</sup>	Model 2d <sup>2</sup>	Model 3a <sup>3</sup>	Model 3b <sup>3</sup>	Model 3c <sup>3</sup>
<i>First equation: dependent</i>	Considering	Planning	Planning	Planning	Planning	Realizing	Realizing	Realizing
<i>Average marginal effects</i>								
Planning migration	–	–	–	–	–	–	0.170***	0.159***
City: Freiburg (vs. Magdeburg)	–0.002	0.003	0.007	0.005	–0.007	–0.001	–0.002	–0.006
Female	0.006	0.009	0.020	0.018	0.030*	–0.008	–0.004	–0.004
Age (18–50)	–0.001	–0.002***	–0.004***	–0.004***	–0.002**	–0.005***	–0.003**	–0.003*
Age squared	–0.000	–0.000*	–0.000*	–0.000*	–0.000**	–0.000	–0.000	–0.000
Higher education	0.032*	0.011	0.000	–0.001	–0.013	0.005	–0.004	–0.003
Income ≥ €500 per month, net	–0.071***	–0.022*	–0.014	–0.019	–0.023	0.010	0.018	0.018
Immigration background	–0.018	–0.030*	–0.058*	–0.054*	–0.041	–0.039	–0.016	–0.009
Migration experience	0.014	0.037***	0.064**	0.058**	0.043*	0.052*	0.033	0.032
Persistently pursues wishes	–0.001	0.005*	0.007	0.006	0.004	0.016**	0.010**	0.010*
Couple household	–0.093***	–0.041***	–0.054**	–0.047**	–0.033*	–0.004	0.013	0.017
Partner wants to move	0.122***	0.059***	0.070***	0.065***	0.047**	0.087***	0.046**	0.045**
Child in household	–0.030	0.007	0.003	–0.001	–0.003	–0.031	–0.029	–0.030
Homeowner	–0.045**	–0.012	–0.009	–0.009	–0.016	–0.007	–0.011	–0.008
Workplace in town	–0.050***	–0.019*	–0.017	–0.018	–0.009	–0.014	–0.014	–0.013
Concentration of friends	–0.026***	–0.009*	–0.009	–0.007	–0.006	–0.014	–0.010	–0.010
Perceived opportunities <sup>4</sup>	0.431***	0.164***	0.164***	0.145***	0.136***	0.181***	0.075**	0.075**
<i>Life course events<sup>5</sup></i>								
(1) Completing school	0.061**	0.053***	0.097***	0.085***	0.072***	0.085***	0.055***	0.051**
(2) Entering labour market	0.095***	0.073***	0.106***	0.105***	0.087***	0.049**	–0.002	–0.003
(3) Occupational change	0.066***	0.002	–0.012	–0.012	–0.008	–0.006	–0.005	–0.005
(4) Starting a family	0.071*	0.021	0.021	0.023	0.023	0.027	0.032	0.035
(5) Moving away of friends	0.141***	0.082***	0.103***	0.096***	0.090***	0.084***	0.048***	0.049***
(6) Separation	0.078*	–0.004	–0.027	–0.024	–0.018	0.055	0.055*	0.059*
<i>Facilitators at destination</i>								
Relatives, friends, acquaintances	–	–	–	0.050***	–0.007	–	0.006	–0.018
Job	–	–	–	–	0.118***	–	–	0.047
Place of study/apprenticeship	–	–	–	–	0.149***	–	–	0.036
Dwelling	–	–	–	–	0.076***	–	–	0.048*
Margin of constant	0.347***	0.100***	0.175***	0.166***	0.157***	0.163***	0.123***	0.130***

<i>Second equation: dependent B</i>	–	–	Considering	Considering	Considering	Second wave	Second wave	Second wave
Planning migration	–	–	–	–	–	–	–0.09	–0.03
City: Freiburg (vs. Magdeburg)	–	–	–0.01	–0.01	–0.01	0.10*	0.11*	0.11*
Female	–	–	0.02	0.02	0.02	0.12*	0.12**	0.11*
Age (18–50)	–	–	–0.00	–0.00	–0.00	0.01	0.01	0.00
Age squared	–	–	–0.00	–0.00	–0.00	–0.00	–0.00	–0.00
Higher education	–	–	0.12*	0.12*	0.11*	0.24***	0.25***	0.26***
Income ≥ €500 per month, net	–	–	–0.25***	–0.25***	–0.25***	0.08	0.08	0.10
Immigration background	–	–	–0.06	–0.06	–0.06	–0.10	–0.11	–0.12
Migration experience	–	–	0.05	0.05	0.05	–0.13*	–0.12	–0.12
Persistently pursues wishes	–	–	–0.01	–0.01	–0.01	0.01	0.01	0.01
Couple household	–	–	–0.32***	–0.32***	–0.33***	0.09	0.07	0.07
Partner wants to move	–	–	0.43***	0.43***	0.43***	–0.08	–0.07	–0.06
Child in household	–	–	–0.11	–0.10	–0.10	0.05	0.04	0.04
Homeowner	–	–	–0.16**	–0.16**	–0.15**	0.04	0.04	0.04
Workplace in town	–	–	–0.18***	–0.18***	–0.18***	–0.04	–0.05	–0.05
Concentration of friends	–	–	–0.09***	–0.09***	–0.09***	–0.05	–0.05*	–0.05*
Perceived opportunities <sup>4</sup>	–	–	1.53***	1.53***	1.52***	–0.12	–0.07	–0.06
<i>Life course events<sup>5</sup></i>								
(1) Completing school	–	–	0.20**	0.20**	0.20**	0.23**	0.25**	0.26**
(2) Entering labour market	–	–	0.34***	0.34***	0.35***	–0.15**	–0.14**	–0.14**
(3) Occupational change	–	–	0.23***	0.23***	0.23***	–0.15*	–0.15*	–0.15*
(4) Starting a family	–	–	0.25*	0.25*	0.25*	–0.07	–0.07	–0.07
(5) Moving away of friends	–	–	0.49***	0.49***	0.49***	0.13*	0.15**	0.15**
(6) Separation	–	–	0.29*	0.29*	0.28*	–0.05	–0.05	–0.03
<i>Facilitators at destination</i>								
Relatives, friends, acquaintances	–	–	–	–	–	–	–0.10	–0.06
Job	–	–	–	–	–	–	–	–0.29**
Place of study/apprenticeship	–	–	–	–	–	–	–	–0.15
Dwelling	–	–	–	–	–	–	–	0.07
Interested in survey findings	–	–	–	–	–	0.33***	0.33***	0.33***
Constant	–	–	0.11	0.12	0.13	0.24	0.28***	0.28
Number of cases	2,396	2,396	2,396	2,396	2,396	2,278	2,278	2,278
Degrees of freedom	22	22	44	45	48	22	24	27
McFadden pseudo $R^2$	0.223***	0.314***	–	–	–	–	–	–
Wald $\chi^2$	–	–	810.7***	815.3***	846.4***	65.1***	121.2***	101.9***
Wald (LR) test of $\rho = 0: \chi^2(1)$	–	–	59.9***	1.11	215.2***	(3.1*)	(0.9)	(1.2)

<sup>1</sup>Probit regression of considering (Model 1) and planning (Model 2a) migration, design-weighted, robust standard errors applied.

<sup>2</sup>Bivariate probit (Model 2b) and seemingly unrelated bivariate probit regression (Models 2c, 2d) of considering and planning migration, design-weighted, robust standard errors applied. Average marginal effects (AME) calculated for planning migration conditional on having considered it.

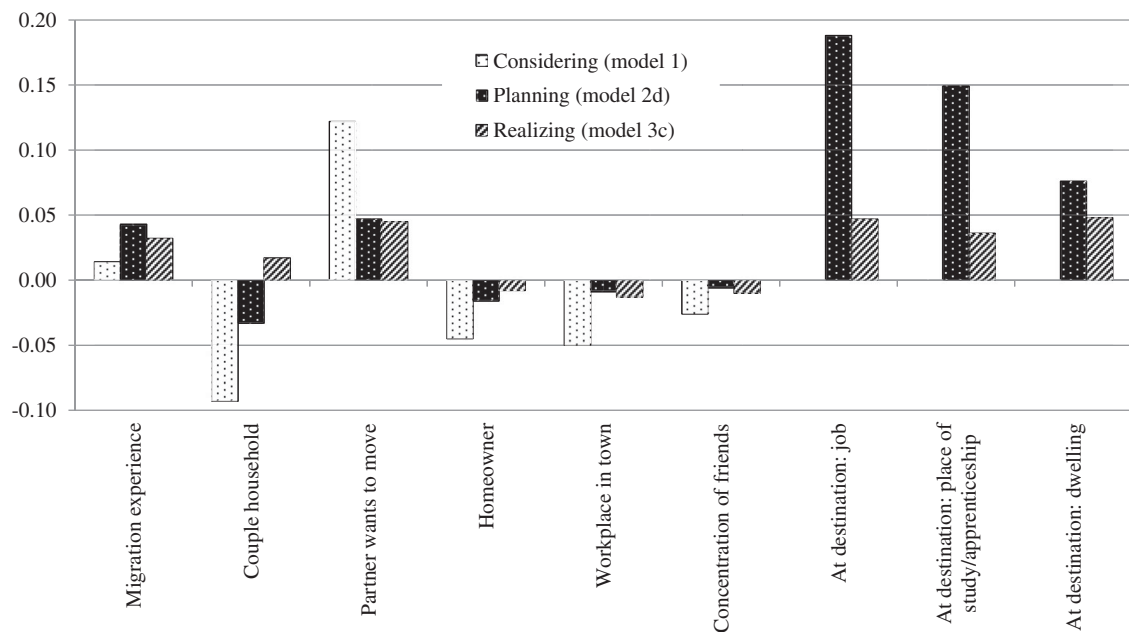
<sup>3</sup>Probit regression of moving beyond the city boundaries with sample selection for participating in the second wave. Uncensored/censored observations: 1,666/612.

<sup>4</sup>Perceived opportunities: index of respondents' perceptions that opportunities are worse, equal, or better elsewhere compared with the current place of residence with regard to (1) partnership; (2) income; (3) pursuing own hobbies and interests; (4) family life; (5) job situation; (6) health; (7) contact with friends and acquaintances; and (8) standard of living.

<sup>5</sup>Life course events: (1) completing school, leaving parental home, starting higher education or apprenticeship; (2) completing studies, entering the labour market; (3) occupational change; (4) marriage or childbirth; (5) moving away of friends or relatives; (6) end of partnership.

Notes: \*\*\* $p < 0.01$ , \*\* $p < 0.05$ , \* $p < 0.10$ ; LR = Likelihood Ratio.

Source: First and second panel waves of the study 'Migration decisions in the life course', Germany, 2006–07.



**Figure 1** Selected average marginal effects on considering, planning, and realizing migration, Germany, 2006–07  
Source: As for Table 3.

concentrated friendship networks play no role in planning migration; but these findings are *conditional* on considering migration as a possible way to act (see the second equation of Model 2d, and Model 1). That is to say, given that actors consider migration, social embeddedness does not constrain them from deciding in favour of migration and entering the planning stage. But actually, all these social factors significantly constrain starting the process of migration decision-making (see Figure 1). Moreover, educational level and personal income do not seem to be important for deciding in favour of migration, but both are estimated to trigger and constrain entering the process of decision-making. The same logic applies to the life course events that do not seem to be triggers for deciding in favour of migration: occupational change, starting a family, and separation from a partner. When people consider moving with a view to occupational change, for instance, they believe they will benefit from a wider search radius for jobs, which increases the likelihood of finding a job outside the city boundaries. Finding and accepting an offer then triggers the decision in favour of migration and the making of concrete plans for moving. Accordingly, facilitators of moving in the form of having a job, a study/apprenticeship place, or a dwelling at the destination are the most important predictors of *planning* migration, after perceived opportunities (see Figure 1). Having friends, relatives, and acquaintances is also influential, but this influence interacts with other facilitators at the destination and also with having an immigration

background. This finding underscores the interpretation that social ties are helpful for migrants with regard to finding a job or housing at the destination. Only two characteristics are found to exclusively influence *planning* but not *considering* migration: first, those who have experienced at least one move beyond the city boundaries are more likely to decide in favour of migration, supporting the idea that migration experience increases perceived behavioural control over migration and enhances skills for planning effectively. Second, the probability of planning to migrate decreases as age increases. This finding is consistent with the strand of research that shows a shrinking probability of migration with age (Bernard et al. 2014).

The last stage of the migration process—*realizing* migration—is again first modelled without taking prior decision-making into account (Model 3a) and afterwards taking *considering* and *planning* migration into account (Models 3b and 3c); remember that having facilitators at the destination is endogenous to *considering* migration. A comparison of the unconditional Model 3a with the conditional Models 3b and 3c shows that the estimated influences on *realizing* migration are not totally different but can be overestimated when previous decision-making is not controlled for. According to the correctly specified Models 3b and 3c, *planning* migration is the most important predictor of *realizing* it; this finding is in line with the TPB. Over and above *planning* migration, few predictors are estimated to be influential. Perceived opportunities at the destination



are still relevant, but to a much smaller degree compared with the preceding decision-making. With regard to facilitators at the destination, only having a dwelling there is estimated to come between deciding in favour of migration and actually realizing it (see Figure 1). Additionally, life course events around completing school are estimated to facilitate moving, most likely because notification about having a study/apprenticeship place often comes at short notice. With regard to social factors, the partner's wish to move and the moving away of friends might be triggers for respondents realizing their moving intentions, but also partnership dissolution. With regard to personal resources, being an individual who persistently pursues their own wishes appears to support putting migration plans into action. The fit statistics (see the last row of Table 3) indicate that in the correctly specified Models 3b and 3c, which take earlier stages of migration decision-making into account, panel attrition is not a source of severe estimation bias; the two equations for *realizing* migration and participating in the second survey wave are not significantly dependent on each other.

For each of the full models of migration decision-making and behaviour presented in Table 3, the overall fit is good according to test statistics and estimated average probabilities of each stage, reflected in the overall margins of the constants. The average probability of *considering* migration is only slightly overestimated, at 35 per cent in Model 1 compared with the empirical probability (unweighted) of 36 per cent. According to Model 2d, 16 per cent of the respondents are *planning* to migrate; empirically this share is 14 per cent. The share of *realizing* migration is somewhat overestimated, with 13 per cent according to Model 3c, compared with 8 per cent.

## 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. From a theoretical point of view this practice is unsatisfactory, because the share of unexpected stayers is normally rather high. This study contributes to the state of research by showing that facilitators and constraints exert significant

influence on migration decision-making but are underestimated when a pre-decisional stage is not taken into account. Instead, the influence of facilitators and constraints on *realizing* migration intentions may be overestimated.

How do these findings relate to the TPB (Ajzen 1985; Fishbein and Ajzen 2010)? Within this framework, constraints and facilitators are expected to undermine or trigger the pursuit of actions because they influence actual control over the intended behaviour. Constraints and facilitators are intervening factors between intentions and behaviours 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 with the direct path that hinders putting intentions into action. The Rubicon model (Heckhausen 1991; Gollwitzer 1996) focuses more strongly on the process of decision-making by introducing a pre-intentional stage. Thus, a three-stage model of migration, which follows the sequence '*considering–planning–realizing*' migration, was suggested previously (see Kalter 1997; Kley 2011).

Findings on the basis of the three-stage model of migration show that the influence of constraints at the current place of residence in the form of social ties resulting from homeownership, having a workplace in town, or having local friendship networks, are strongly underestimated when a pre-decisional stage is not explicitly considered in the analysis. Actors who are strongly rooted at their residence are not at risk of deciding in favour of migration, because they do not see migration as a possible way to act. Moreover, specific life course events like starting a family, occupational change, or separation from one's partner may act as a trigger for starting to *consider* migration, but are not estimated to be influential on deciding in favour of migration.

Another contribution of this study can be seen in the finding that in the case of voluntary (as opposed to involuntary) migration, facilitators at the destination, like having relatives and friends there or already having a job or a dwelling there, primarily trigger deciding in favour of migration, and do not trigger the realization of migration intentions. This finding suggests that we should widen our understanding of facilitators and constraints by understanding migration decision-making as a process in which perceived behavioural control is increased gradually until the decision in favour of migration is made; or, where this increase does not take place, the idea of migration is abandoned.

More generally, this study suggests that the explicit distinction between a pre-decisional (*considering*) and post-decisional (*planning*) phase is a promising way forward for further migration research. Whereas analysing the *considering* stage allows us to determine which actors are at risk of deciding in favour of migration, analysing the *planning* stage allows us to determine all the little preparatory actions that might be necessary before an actor can migrate, for instance applying for a visa, searching for a dwelling, and preparing for the journey. A potential shortcoming of the analysis presented here may be that it is based on a limited number of cases that were obtained in two German cities. But I see little reason to assume that the residents of these cities are fundamentally different with regard to migration decision-making and behaviour from other citizens in Germany or other (industrialized) states. The data were gathered by applying random sampling procedures, and the response rates were relatively high.

Future applications of the three-stage model in other settings will test its usefulness for the analysis of the distinct roles of certain groups of facilitators and constraints on each stage of migration decision-making and behaviour. It can be expected, for instance, that facilitators at the destination will lose significance for deciding in favour of migration when people feel forced to migrate. Or, for regions with strong life course norms of migration, it can be expected that *considering* migration will be more widespread and less constrained by local ties. It would be useful to analyse what facilitates deciding in favour of migration and actually moving in such a setting.

## Notes

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- 2 This work was supported by the German Research Foundation [HU 646/8].

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