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Settlement Intentions and Immigrant Integration: The Case of Recently Arrived EU-Immigrants in the Netherlands

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ABSTRACT

The aim of this study is to examine the effect of settlement intentions on the integration of recently arrived EU-immigrants in the Netherlands. Hypotheses on differences in integration, both shortly after arrival and over time, are derived from the intergenerational immigrant integration model. Based on two waves of the New Immigrants to the Netherlands Survey, a longitudinal multilevel model was estimated. Most differences were found with regard to the level of integration shortly after arrival. Immigrants who intended to stay had more contact with natives, were more proficient in Dutch, and consumed more host country media than immigrants who intend to leave. On the other hand, they worked fewer hours per week than immigrants who intend to leave. Differences over time were only found with regard to Dutch language proficiency: immigrants who intend to stay increased their proficiency more strongly than immigrants who intend to leave.

INTRODUCTION

Immigrant integration is the process through which newcomers become part of the host society (Castles et al., 2002). Not all immigrants integrate to the same degree or at the same rate. One of the factors that might influence immigrant integration is whether, upon arrival, they intend to stay in the host society. Most studies on the relationship between integration and settlement intentions have argued that more integrated immigrants are more likely to want to stay in the host country (e.g., de Haas and Fokkema, 2011; de Vroome and van Tubergen, 2014; di Saint Pierre et al., 2015; Jensen and Pedersen, 2007). However, the opposite direction is possible too. The intention to stay is likely to make immigrants more oriented towards the host society, thus facilitating their integration (Anniste and Tammaru, 2014).

Intra-European Union (EU) immigrants are a particularly interesting group in which to examine this. The enlargement of the European Union in 2004 and 2007 brought a new flow of immigrants from Middle- and Eastern Europe to Western Europe (Favell, 2008). After the 2008 economic crisis, the number of immigrants from Southern Europe also increased. More specifically, in the Netherlands, the number of Middle- and Eastern Europeans quadrupled between 2004 and 2015. During these same years the number of Southern Europeans increased by a third (CBS, 2015). The specific legal status of EU-immigrants, giving them freedom of movement between all EU

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member-states, has been related to more "liquid" migration patterns (Engbersen et al., 2010), i.e., their migration patterns are more complex, fluid, and uncertain than those of non-EU immigrants. Therefore, the settlement intentions of EU-immigrants are likely to be less predetermined and more varied. This, in turn, might affect their integration process. Thus far, only a few studies have examined the effect of settlement intentions on integration among intra-EU immigrants. Previous research was limited by only considering language proficiency as an outcome (Geurts and Lubbers, 2016). Since intra EU-migration is an increasing phenomenon and a much debated topic, it is important to extend our knowledge of the factors that shape integration in this group of immigrants.

In addition to studying intra-EU immigrants, we focus on recent arrivals. Due to their short length of stay in the Netherlands, they are still at the beginning of their integration process, which is the phase when immigrants make most choices regarding their investments in the host society (Chiswick and Miller, 1994). Moreover, we use longitudinal data which allows us to examine changes in integration with increasing length of stay. In sum, the aim of this study is to examine the effect of early settlement intentions on the subsequent integration of recent EU-immigrants in the Netherlands.

Investment choices of recent immigrants

A useful model to understand why and how immigrants' settlement intentions affect their integration trajectories is the theory of intergenerational immigrant integration (Esser, 2004). According to this theory, immigrants make decisions on whether or not to invest in resources that are specific to the host country. The attractiveness of these investments depends on their expected costs and returns. For immigrants who intend to stay in the host country, investing in host country specific capital is more attractive than for temporary immigrants due to the longer time period in which they can use their newly obtained capital (Duleep and Regets, 1999).

Most investments by immigrants tend to be made shortly after arrival, and the amount of investments typically decreases with length of stay (Chiswick and Miller, 1994). It is in the early period of stay that immigrants make important decisions on investing in host country specific capital which in turn influences their integration process. It is expected that recently arrived immigrants who intend to stay are more likely to invest in host country specific capital than those who intend to leave again. Due to different investments in host country specific capital, differences in integration can occur, both shorty after arrival as well as over time. Immigrants who intend to stay might immediately immerse themselves in the cultural and social life of the host county. Moreover, immigrants who invest more in host country specific capital will obtain more host country specific skills and knowledge, which will also make them more integrated over time. Thus, our general expectation is that immigrants who intend to stay will both have a higher level of integration shortly after arrival and become more integrated over time than immigrants who intend to leave. As EU-immigrants enjoy freedom of movement, an intermediate position in which they intend to move back and forth, is also possible. Immigrants who intend to move back and forth profit from host country specific capital as well. Yet, since they expect to spend only a part of their time in the Netherlands they profit less compared to immigrants who intend to stay permanently. However, compared with immigrants who intend to leave, they benefit more. Therefore, we expect that immigrants who intend to move back and forth will be more integrated shortly after arrival and will become more integrated over time than immigrants who intend to leave, but less so than immigrants who intend to stay.

Integration is not a unidimensional concept (Entzinger and Biezeveld, 2003). Previous studies have shown settlement intentions to be associated with three dimensions of integration: structural integration, social integration and cultural integration (e.g., Martinovic et al., 2015; van Tubergen,

2010; van Tubergen and van de Werfhorst, 2007). In the following paragraph, hypotheses on the effect of settlement intentions on these three integration dimensions will be formulated. These hypotheses are all based on our overarching reasoning regarding the different levels of attractiveness for investing in host country specific capital for immigrants with different settlement intentions.

Structural, social and cultural integration

Structural integration entails the incorporation of immigrants into the core institutions of the host society, such as the labour market or the educational system (Heckmann, 2006). Some studies have found that the likelihood of immigrants to stay in the host country increases their likelihood of having higher wages (Borjas, 1982), and of being employed (van Tubergen et al., 2004). A limitation of previous research is that settlement intentions were often not directly measured, but inferred from geographical distance between the host and origin countries (Borjas, 1982; Chiswick and Miller, 1994; van Tubergen et al., 2004) or individual characteristics like length of stay, the presence of a partner, and age at migration (van Tubergen and van de Werfhorst, 2007). The present study therefore uses a direct measure of settlement intentions, and examines whether this affects structural integration in terms of the number of hours immigrants work. In line with our overarching hypothesis, we expect that immigrants who plan to stay will work more hours than those who intend to move back and forth and particularly than those who intend to leave, both shortly after arrival (H_{1a}) and over time (H_{1b}).[1]

Social integration involves the extent to which immigrants interact with natives and participate in the host society's social life (Martinovic et al., 2009a). Contact between natives and immigrants can facilitate economic and cultural integration through providing access to the social capital of natives (Hagendoorn et al., 2003). To our knowledge, only one study has examined the relationship between settlement intentions and social integration empirically. A longitudinal study by Martinovic et al. (2015) found that immigrants who decided to stay in Germany permanently developed more interethnic contact than temporary immigrants. We hypothesize that recent EU-immigrants who intend to stay will have more contact with Dutch people than those who intend to move back and forth and especially than those who intend to leave, both shortly after arrival (H_{2a}) and over time (H_{2b}).

Cultural integration involves the acquisition of the core elements and competences of the host society's culture (Heckmann, 2006), such as host country language proficiency. Host country language proficiency is considered important for immigrants to perform well on the labour market (Chiswick and Miller, 2002) and to establish contacts with natives (Martinovic et al., 2009b). Language proficiency is the dimension of integration that has most often been studied in relation to settlement intentions. Several studies found that immigrants who are more likely to stay have higher levels of proficiency in the host country's language (Chiswick and Miller, 1998; 2001; Espenshade and Fu, 1997; van Tubergen and Kalmijn, 2009; van Tubergen, 2010). A study by Carliner (2000), on the other hand, found no differences in English language proficiency between immigrants with different likelihoods of permanent settlement. Geurts and Lubbers (2016) considered changes in settlement intentions and found that immigrants who change from a temporary to a permanent intention improved their Dutch language skills. We extend this work by considering how early settlement intentions affect early levels of language proficiency as well as changes in proficiency, and we expect that recent EU-immigrants who intend to stay are more proficient in Dutch than those who intend to move back and forth and especially than those who intend to leave, both shortly after arrival (H_{3a}) and over time (H_{3b}).

Another aspect of cultural integration is immigrants' consumption of host country media (Lee et al., 2003). Exposure to host country media can increase immigrants' knowledge about the host society through the cultural values and social practices reflected in media messages (Moon and

Park, 2007). It has been found that immigrants who are more often exposed to host country media adapt more to the host society's cultural values and customs (Hwang and He, 1999; Lee and Tse 1994). Although, to our knowledge, no previous studies have examined host country media consumption in relation to settlement intentions, it is likely that immigrants who intend to stay are more eager to learn about the host society, since increased knowledge might help them to get used to their new environment. We therefore hypothesize that recent EU-immigrants who intend to stay consume more host country media than those who intend to move back and forth and especially than those who intend to leave, both shortly after arrival (H_{4a}) and over time (H_{4b}).

METHODS

Data and participants

The data for this study were obtained from the New Immigrants to the Netherlands Survey (NIS2NL) (Hilhorst, 2014; 2015). NIS2NL is a panel study specifically designed to analyse early integration processes of recently arrived immigrants from Bulgaria, Poland, Spain, and Turkey. The first wave of data was collected in the fall of 2013 and the spring of 2014. Respondents were approached to participate within a year after registering with a municipality in the Netherlands for the first time. Questionnaires were translated into Bulgarian, Polish, Spanish, and Turkish and could be completed both online (CAWI) or on paper (PAPI). In total 4.808 respondents participated (791 Bulgarians; 921 Turks, 1.329 Spaniards, and 1.768 Poles). The overall response rate for the first wave was 27.9 per cent, varying from 19.3 per cent for Bulgarians to 40.9 per cent for Spaniards. Since the current study focuses on EU-immigrants, Turkish respondents were excluded from the sample. After, on average, fifteen months, respondents who had consented to be contacted again and who still lived in the Netherlands were contacted to participate in the second wave. The overall response rate for EU-immigrants was 59.2 per cent, with group rates ranging between 55.0 per cent for Poles and 66.9 per cent for Spaniards.

Previous research shows that the date of registering with the municipality does not always coincide with the actual date of arrival (Gijsberts and Lubbers, 2013). Since the current study is concerned with recently arrived immigrants, only respondents who indicated they had arrived in 2013 or 2014 were selected, resulting in a sample of 1525 EU-immigrants in the first wave, of which 707 also participated in the second wave. For this study we only use data from respondents who completed both waves. Respondents who had a missing value on settlement intentions were also excluded (1.1%). The final sample therefore consists of 699 respondents (266 Poles, 134 Bulgarians, and 299 Spaniards). On average they were 29.8 years old in wave one (*SD* = 7.8). With 61.4 per cent, women are somewhat overrepresented.

Measures

All dependent variables were measured in exactly the same way in both waves. Change over time within individuals was modelled as a function of their *length of stay in the Netherlands in months*. Settlement intentions and the control variables are (treated as) time-invariant and were therefore included as indicated in the first wave.

Dependent variables

Structural integration. Structural integration was measured by the number of hours the respondents work in a regular week. In order to prevent extreme outliers, respondents who

indicated that they worked more than sixty hours were recoded as working sixty hours a week. Since being enrolled in education can be seen as another form of structural integration, a dummy variable for enrolment in education will be included as a control variable for structural integration.

Social integration. Contact with Dutch people was measured with the question: "*How often do you spend time with Dutch people in your free time?"*. Answers could be given on a six-point scale ranging, after reverse coding, from "1 = Never" to "6 = Every day".

Cultural integration. We examined two indicators of cultural integration. First, host country language proficiency was measured by asking respondents to indicate their level of proficiency in understanding, speaking, reading, and writing Dutch. Respondents could answer on a four-point scale ranging, after reverse coding, from "1 = Not at all" to "4 = Very well".

Second, host country media consumption was measured with two items. Respondents were both asked how often they watched Dutch television channels and how often they read Dutch printed or online newspapers. Answer categories for both questions ranged, after reverse coding, from "1 = Never" to "5 = Every day". Respondents could also indicate that they were unable to read Dutch. These respondents were reclassified as never reading Dutch newspapers.

A confirmatory factor analysis was performed to assess whether host country language proficiency and host country media consumption are separate indicators of cultural integration. In order to account for the clustering of the data the (MLR) standard errors were computed using a robust estimator adjusted for clustering (Asparouhov, 2006). The two-factor structure fitted the data significantly better than a one-factor structure (SB Chi2(1)= 34.931, p <.001). Reliability of host country language proficiency was high (α = .92). The Spearman-Brown reliability statistic (.58) was used to assess the reliability of host country media consumption since this is regarded to be most appropriate for two item-scales (Eisinga et al., 2012). It was concluded that host country language proficiency and host country media consumption can be used as two separate factors. However, due to the large amount of parameters that had to be estimated in the structural models it was not possible to use them as latent variables. Instead, average scores were calculated for both indicators.

Predictors

Settlement intentions. Settlement intentions were measured by asking respondents "*What best describes your current situation or which comes closest?"* Respondents could answer that they expected (1) to stay in the Netherlands, (2) to move back and forth between their country of origin and the Netherlands, (3) to return home, (4) to move to another country or (5) don't know. Since respondents in the third and fourth category both expected to leave again, they were combined into a single category ("leave"). A considerable number of respondents indicated that they "don't know" (18.5%). Since respondents in this category are unsure about their settlement intention, they are also likely to be ambiguous about their investment in integration. Therefore it is expected that this group will integrate more than immigrants who intend to leave, but less than immigrants who intend to stay. The four categories indicating settlement intentions were converted into dummy variables.[2]

Control variables. Besides settlement intentions there are several other characteristics that could influence immigrants' integration, both shortly after arrival as well as over time. First, gender differences on several dimensions of integration have been found. Immigrant men, for example, are often more proficient in the language of the host country (van Tubergen, 2010) and more oriented

towards the labour market, thereby exposing themselves more to natives. Therefore *gender* (1 = "Male", 0 = "Female") was included as a control variable.

Second, highly educated immigrants are more efficient in acquiring new skills and knowledge (Carliner, 2000), have a stronger economic incentive to adjust to the new environment (Chiswick and Miller, 2001) and are more likely to be exposed to natives (Martinovic, 2013). Educational attainment was measured as the highest level of education achieved in the country of origin, using country-specific answer categories. Since educational systems differ across the origin countries, the International Standard Classification of Education (ISCED, 2011) was used to recode country-specific levels of education into two internationally comparable categories: tertiary education (= 1) and less than tertiary education (= 0).

Third, *age at arrival (in years)* was included since older immigrants have a harder time adjusting to a new environment and learning new skills (Chiswick and Miller, 2001).

Fourth, whether or not respondents live with *children in the household* (1 = Yes, 0 = No) was included. Living with children could increase the motivation of immigrants to integrate into the new society since this will benefit the opportunities of their children (Heath et al., 2008). Furthermore, immigrants with children in the household are likely be more exposed to host country institutions and culture (Luykx, 2005).

TABLE 1

DESCRIPTIVE STATISTICS PER WAVE

		Wave 1		Wave 2	
	Range	*N*	Mean (*SD*)/ proportion	*N*	Mean (*SD*)/ proportion
Dependent variables					
Contact with Dutch	1-6	698	4.10 (1.62)	697	4.09 (1.58)
Dutch language proficiency	1-4	697	1.79 (0.67)	691	2.13 (0.70)
Host country media consumption	1-5	589	2.21 (1.09)	693	2.31 (1.13)
Hours employed per week	0-60	691	21.35 (20.17)	676	26.16 (19.46)
Time variable					
Length of stay in months	0-28	699	7.08 (3.06)	699	21.38 (3.64)
Predictor variable					
Settlement intentions[a]		699		699	
Stay			38.8		36.8
Back and forth			7.7		7.6
Leave			35.1		39.4
Don't know			18.5		16.2
Control variables					
Enrolled in education in NL	0/1	690	28.3	698	27.1
Male	0/1	697	38.6	N/A	N/A
Completed tertiary education	0/1	675	64.3	N/A	N/A
Age at arrival	19-61	696	29.8 (7.8)	N/A	N/A
Children in the household	0/1	693	20.5	N/A	N/A
Country of origin		699			
Poland			38.1	N/A	N/A
Bulgaria			19.2	N/A	N/A
Spain			42.8	N/A	N/A

Note: [a]Settlement intentions are shown for both waves for descriptive reasons. In the analyses only the effect of settlement intentions at wave 1 was included.

Finally, we controlled for the country of origin of the respondents in order to account for (possible) differences between the three immigrant groups, using Spanish immigrants as the reference category. Table 1 shows descriptive statistics for all variables.

Analytical strategy

In order to test the proposed hypotheses, a longitudinal model was fitted within a multilevel framework using Mplus version 7 (Muthén and Muthén, 2012). Missing values were dealt with using Full Information Maximum Likelihood and MLR was used as the estimator. Since time-points are nested within individuals in panel data, observations at different time-points are not completely independent. By taking a multilevel approach, it is possible to simultaneously and adequately estimate both within-person change and between-person differences (Hox, 2010). Since changes in integration are examined in this study, the different dimensions of integration were treated as time-varying variables, i.e., on the within level. We considered the relation between settlement intentions – specified as a time-invariant between-person variable – and early levels of integration by examining the intercepts of our four dependent variables for immigrants with different settlement intentions (H_{1a}-H_{4a}). In order to test our hypotheses regarding the role of settlement intentions for the rate of change in immigrant integration (H_{1b}-H_{4b}), we first need to examine whether the integration measures we include change over time. This was done by adding a fixed effect of length of stay as a predictor. Next, a model was specified in which the slope of length of stay was allowed to vary across individuals to examine whether individuals change at different rates. Finally, we tested whether the early level of integration and the rate of change over time is predicted by settlement intentions. To this end, cross-level interactions of length of stay and settlement intentions were added in a third model. All dependent variables were modelled simultaneously in order to take the interrelatedness between different dimensions of integration into account. The control variables were added in the last model and regressed on both intercepts and slopes in order to capture early differences as well as different growth rates.

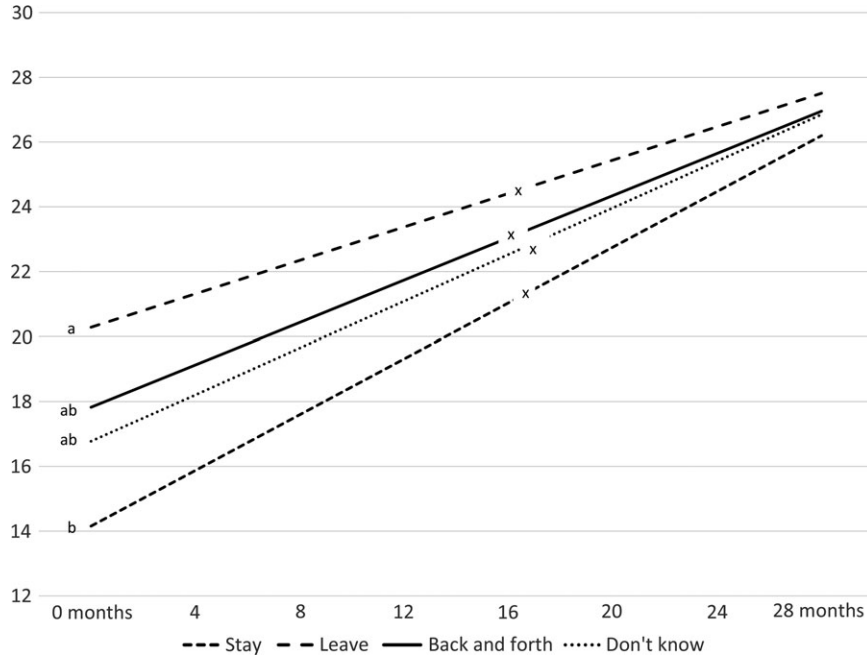
TABLE 2

AVERAGE LEVELS (SD) OF STRUCTURAL, SOCIAL AND CULTURAL INTEGRATION OVER BOTH WAVES PER SETTLEMENT INTENTION AND ONE-WAY ANALYSES OF VARIANCE.

	N	Stay	*N*	Back and forth	*N*	Leave	*N*	Don't know	F-statistic
Number of hours employed per week	530	21.82[a] (19.60)	106	23.76[ab] (20.47)	486	25.88[b] (20.14)	252	23.62[ab] (19.84)	3.490*
Contact with Dutch people	541	4.14[a] (1.68)	108	4.19[a] (1.54)	489	4.01[a] (1.51)	257	4.12[a] (1.60)	.809
Dutch language proficiency	539	2.08[a] (.72)	107	2.02[a] (.67)	486	1.80[b] (.69)	256	1.98[a] (.66)	14.973***
Host country media consumption	496	2.65[a] (1.16)	103	2.35[b] (1.12)	449	1.86[c] (.95)	234	2.17[b] (1.02)	44.578***

Note: Two tailed significance tests ***p < .001, *p <.05. Means sharing the same superscript are not significantly different from each other.

FIGURE 1
GROWTH TRAJECTORIES FOR THE NUMBER OF HOURS RECENT EU-IMMIGRANTS ARE EMPLOYED PER WEEK (RANGE = 0 TO 60)



Note: Intercepts (a-b) or slopes (x) sharing the same superscript are not significantly different from each other.

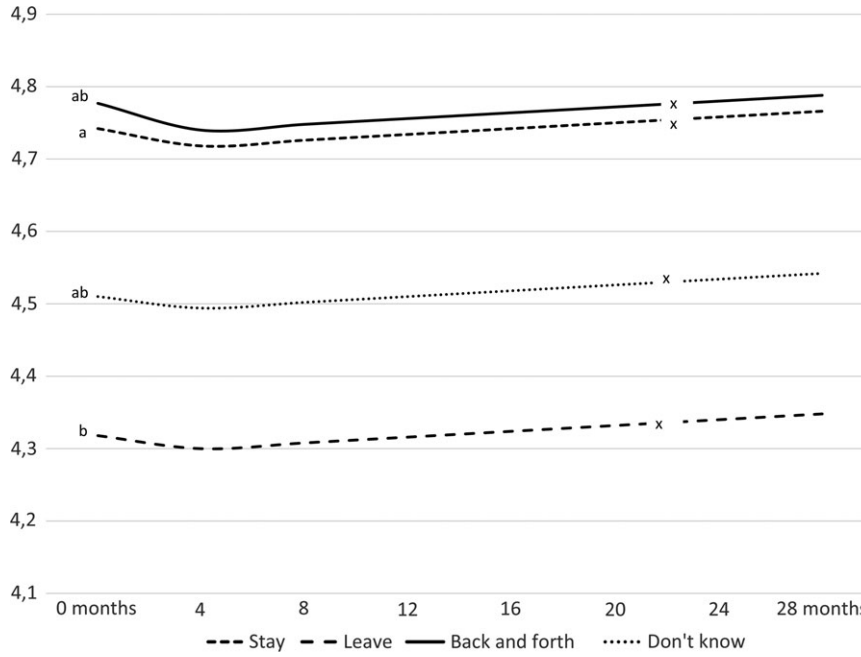
RESULTS

Descriptive findings

One-way analyses of variance were performed to test for mean differences in immigrants' integration as a function of their settlement intentions. Immigrants who intend to leave were on average least proficient in Dutch and consumed the least Dutch media. Immigrants with the intention to stay consumed the most Dutch media. No significant differences between immigrants' settlement intentions were found for the amount of contact with Dutch. Table 2 shows the remaining differences across immigrants' settlement intentions.

Next, a multilevel model with a fixed linear effect of length of stay showed that, as time progresses, recent immigrants on average become *more proficient in Dutch* (b = .023, p < .001), consume more *host country media* (b = .007, p < .01), and work more *hours per week* (b = .328, p <.001). No average change was found regarding the amount of contact with Dutch (b = -.001, p = .735). When modelling change over time, it is important to consider non-linear effects because failing to do so could lead to the estimation of spurious random slopes and cross-level interactions (Bauer and Cai, 2009). When adding a squared term of length of stay both the linear effect (b = -.041, p < .01) as well as the quadratic effect (b = .001, p < .01) were found to be significant with regard to contact with Dutch people. For language proficiency, a significant squared relationship

FIGURE 2
GROWTH TRAJECTORIES FOR CONTACT WITH DUTCH (RANGE = 1 TO 6)



Note: Intercepts (a-b) or slopes (x) sharing the same superscript are not significantly different from each other.

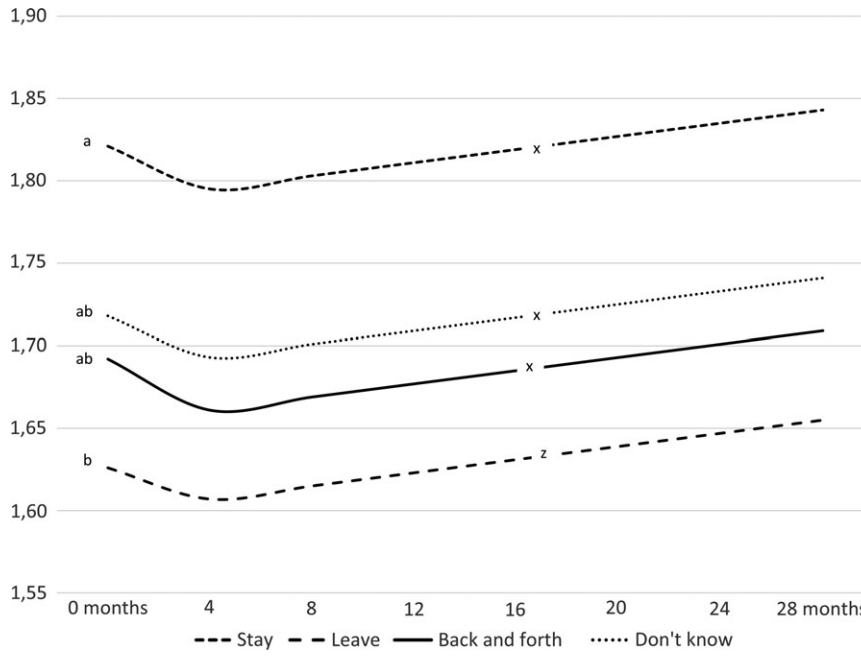
with time was found as well (b = -.001, p < .01) on top of a significant linear effect (b = .042, p < .001). No non-linear relationships were found for the other two outcome variables.

Explanatory findings

In order to examine whether immigrants with different settlement intentions have different rates of change with regard to structural, social and cultural integration, the variances of the slopes of length of stay were examined. Since more than two measurement points are needed in order to randomize the quadratic effect of length of stay, we assumed this quadratic effect to be homogeneous across all immigrants. For none of the indicators of integration the variance of the slope was found to be significant. Yet, without adding covariates the power for tests of slope variance is generally low (Snijders and Bosker, 1999). Therefore, in cases where there are clear hypotheses about cross-level interactions, as in the present study, it is recommended that significant slope variance is not used as a prerequisite for testing cross-level interactions (Lahuis and Ferguson, 2009).

Therefore, in the next step cross-level interactions between length of stay and settlement intentions were added for all four indicators of integration. The reference category for settlement intentions was changed consecutively in order to examine all possible differences. Figures 1 to 4 show the growth trajectories for the four outcome variables as a function of immigrants' early settlement intentions, and numerical results can be found in Table 3. With regard to the *number of hours recent immigrants work per week* (see Figure 1) we found that at the beginning of their integration process, immigrants who intended to leave worked significantly more hours than those who

FIGURE 3
GROWTH TRAJECTORIES FOR HOST COUNTRY LANGUAGE PROFICIENCY (RANGE = 1 TO 4)



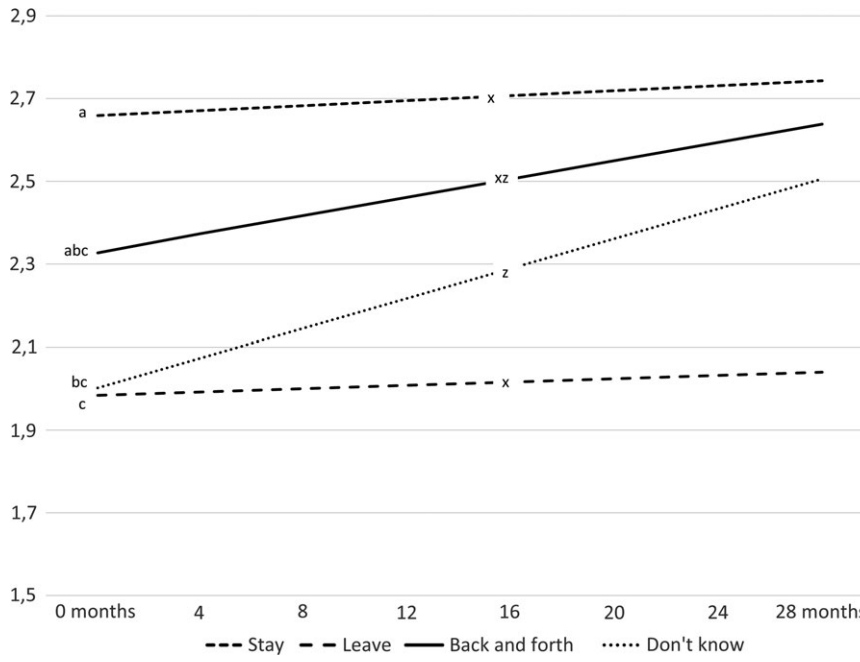
Note: Intercepts (a-b) or slopes (x-z) sharing the same superscript are not significantly different from each other

intended to stay. Immigrants who intended to move back and forth and those who did not know seem to take an intermediate position, although the intercepts of these two groups did not differ significantly from immigrants with other settlement intentions. Hypothesis 1a was thus rejected. With regard to the rate of change, no differences between immigrants' settlement intentions were found. Hypothesis 1b was therefore rejected as well. Over time, only immigrants who intend to stay or who are undecided showed a significant increase in the number of hours they work.[3]

When examining the intercepts of *contact with Dutch people* (see Figure 2), we found that immigrants who intended to leave had significantly less contact with Dutch natives in the beginning of their integration process than immigrants who intended to stay. No further differences were found. Hypothesis 2a was thus partially confirmed. With regard to the rate of change in contact with Dutch people, no differences were found between immigrants with different settlement intentions. Moreover, for none of the settlement intentions an average change over time was found. Hypothesis 2b was rejected.

Immigrants who intended to leave had a significantly lower level of *Dutch language proficiency* at the beginning of their stay than immigrants who intended to stay. Immigrants who did not know or intended to move back and forth did not differ from any of the other groups in their early level of language proficiency. Hypothesis 3a was thus partially confirmed. Not only did the early level of Dutch language proficiency differ between immigrants who intended to leave and intended to stay, the rate of change was also found to differ between these two groups. The Dutch language proficiency of recent immigrants who intended to leave increased less strongly than that of immigrants who intended to stay, to move back and forth, and those who did not know (see Figure 3).

FIGURE 4
GROWTH TRAJECTORIES FOR HOST COUNTRY MEDIA CONSUMPTION (RANGE = 1 TO 5)



Note: Intercepts (a-c) or slopes (x-z) sharing the same superscript are not significantly different from each other.

The rate of change of the latter three groups did not differ significantly from each other. An average increase of language proficiency was found for all settlement intentions. In sum, Hypothesis 3b was partially confirmed.

With regard to *host country media consumption* it was found that immigrants who intended to stay scored higher at the beginning of their stay than immigrants who intended to leave or were undecided. Immigrants with the intention to move back and forth seemed to take an intermediate position, yet the difference was not significant. Hypothesis 4a was therefore only partially confirmed. Differences in the rate of change in host country media consumption were also found (see Figure 4). Immigrants who were undecided about their settlement intention increased their consumption of host country media faster than immigrants who intended to stay. Since an intermediate position was predicted for immigrants who were undecided, this finding is not in accordance with the expectation. In line with the expectation, those who were undecided increased their media consumption faster than those who intended to leave. Hypothesis 4b was therefore partially confirmed. No further differences were found with regard to the rate of change in media consumption.

With regard to the effect of the control variables, we found more differences in the early levels of integration than in changes over time. Gender was found to most often have an effect on the different dimensions of integration. At the beginning of the stay, men worked more hours per week, but were less proficient in Dutch and consumed less host country media than women. Even though men started off working more hours, the increase in number of hours worked was stronger for women. The remaining effects of the control variables can be found in Table 4.

TABLE 3

DIFFERENCES BETWEEN SETTLEMENT INTENTIONS IN THE EARLY LEVEL OF INTEGRATION (INTERCEPT) AND THE RATE OF CHANGE (SLOPE)

	Hours employed		Contact with Dutch		Dutch language proficiency		Host country media consumption	
	Intercept	Slope	Intercept	Slope	Intercept	Slope	Intercept	Slope
Stay (reference)								
Leave	6.127***	−.172	−.424*	.006	−.196**	−.008**	−.675***	−.001
Back and forth	3.671	−.104	.036	−.013	−.129	.005	−.332	.008
Don't know	2.620	−.071	−.232	.008	−.104	−.001	−.657***	.015*
Leave (reference)								
Stay	−6.127**	.172	.424*	−.006	.196**	.008**	.675***	.001
Back and forth	−2.456	.068	.459	−.020	.067	.013**	.343	.009
Don't know	−3.506	.101	.192	.002	.092	.007*	.018	.016*
Back and forth (reference)								
Stay	−3.671	.104	−.036	.013	.129	−.005	.332	−.008
Leave	2.456	−.068	−.459	.020	−.067	−.013**	−.343	−.009
Don't know	−1.050	.034	−.267	.021	.025	−.006	−.325	.007
Don't know (reference)								
Stay	−2.620	.071	.232	−.008	.104	.001	.657***	−.015*
Back and forth	1.050	.034	.267	−.021	−.025	.006	.325	−.007
Leave	3.506	−.101	−.192	−.002	−.092	−.007*	−.018	−.016*

Note: Two tailed significance tests ***$p < .001$, **$p < .01$, *$p < .05$

TABLE 4

THE EFFECTS OF THE CONTROL VARIABLES FOR EACH INDICATOR OF INTEGRATION REGRESSED BOTH ON THE INTERCEPT AND THE SLOPES OF LENGTH OF STAY ($N = 699$)

	Hours employed	Contact with Dutch	Language proficiency	Media consumption
Intercept				
Male	13.001***	−.207	−.306***	−.222*
Completed tertiary education	4.643*	.216	−.094	−.030
Age at arrival	.261*	−.009	−.002	.025***
Children in the household	−8.026**	−.329	−.009	.371*
Country of origin (ref = Spain)				
Poland	.816	−.642**	−.141	−.167
Bulgaria	−9.471***	−.203	.287**	−.023
Slope				
Male	−.244**	.001	−.002	−.009
Completed tertiary education	.025	−.007	.011***	.000
Age at arrival	.002	−.001	.000	.000
Children in the household	.076	.016	.000	−.007
Country of origin (ref = Spain)				
Poland	−.012	−.002	.004	.007
Bulgaria	.114	−.005	−.003	.015*

Notes: Immigrants who are enrolled in education in the Netherlands work less hours per week than immigrants who are not enrolled in education ($b = -9.228$, $p < .001$). *Unstandardized* coefficients are reported. Two tailed significance tests ***p < .001, **p < .01, *p <.05

CONCLUSION

This study was one of the first to examine changes in integration in relation to settlement intentions of recent immigrants using panel data. More specifically, we focused on intra-EU immigrants, a group that has been relatively understudied with regard to the relationship between settlement intentions and integration. Due to the specific legal status of intra-EU immigrants, circular migration is a realistic option. The possibility for circular migration enabled us to examine the effect of a third possibility of settlement intentions, in addition to staying or leaving: immigrants who intended to move back and forth between their country of origin and the Netherlands. Four conclusions can be drawn from this study.

First, the findings concerning structural and social integration differed from previous studies. Based on the general expectation regarding the relation between settlement intentions and integration, we hypothesized that immigrants who intended to stay would work more hours and increase their working hours more than those who intended to leave. Our results do not support the first part of the hypothesis, as immigrants who intended to leave worked most hours at the start of the integration trajectory. Although no significant differences were found in the rate of change, we did find an increase in the number of hours immigrants who intended to stay worked, whereas this increase was not significant for immigrants who intended to leave. Therefore it does seem that immigrants who intend to stay catch up over time. These findings are in line with investment theory, as they indicate that immigrants who intend to leave are likely to work as much as possible in order to meet their income goals that allow them to leave again (Constant and Massey, 2002). For immigrants who intend to stay, on the other hand, a maximum workload is of less importance since they generally do not have a target income to meet as soon as possible. Our finding that those who planned to stay worked fewer hours than those who planned to leave again contradicts previous findings that suggest that the likelihood of immigrants to stay in the host country increases the likelihood of being employed (van Tubergen et al., 2004). An important difference is, however, that in

our study settlement intentions were directly measured, whereas the study by van Tubergen et al. (2004) used geographic distance as a proxy for the likelihood of settling permanently.

We found that contact with natives in the beginning of the integration process differs between immigrants who intended to stay and those who intended to leave. It seems that immigrants with the intention to stay immerse themselves more in new social contexts from the beginning than immigrants who intend to leave and that this early difference remains stable over time, as we observe no change in the amount of contact with Dutch people. A possible explanation for neither finding differences between immigrants' settlement intentions in their rate of change, nor finding average changes, might be that contact is a two-sided process and therefore depends on members of the host country as well. Even if immigrants try to establish contact with natives, their attempts might be rejected making it harder to enhance contact with Dutch people. Whereas we did not find differences between immigrants with different settlement intentions regarding changes in contact with Dutch, results by Martinovic et al., (2015) showed that immigrants who switched from a temporary to a permanent settlement intention developed more contact with natives over time. It might thus actually be a change in settlement intentions instead of the early settlement intention that influences change in contact with natives.

Second, our findings with regard to host country language proficiency are in accordance with previous research. We found that immigrants who intend to stay in the host country permanently are more proficient in the host country's language than immigrants who intend to leave, with regard to both the early level and changes over time. This is in line with several cross-sectional studies that used proxies for settlement intentions (Chiswick and Miller, 1998; 2001; Espenshade and Fu, 1997), as well as with cross-sectional studies that used direct measures (van Tubergen, 2010; van Tubergen and Kalmijn, 2009).

Third, to our knowledge, we are the first to relate settlement intentions to host country media consumption. We added this as an indicator of cultural integration, arguing that exposure to host country media can increase immigrants' knowledge about the host society (Moon and Park, 2007), which in turn enhances adaptation to the host society's cultural values and customs (Hwang and He, 1999; Lee and Tse, 1994). The fact that immigrants who intend to stay consume more host country media at the beginning of their integration process than those with the intention to leave suggests that they indeed invest more in learning about the host country.

Fourth, we did not find strong evidence that immigrants who intend to move back and forth between their country of origin and the Netherlands take an intermediate position with regard to their integration. The early level of integration and the rate of change of immigrants who intend to move back and forth does, however, seem to take an intermediate position with regard to host country language proficiency, host country media consumption and the number of hours immigrants work. That is, the results are in the direction of what was expected, yet they could not be statistically confirmed. A possible explanation is that the number of immigrants who intend to move back and forth in the sample is small (7.7%) and therefore the statistical power to detect the intermediate position was limited.

Overall, we found more differences between immigrants' settlement intentions with regard to the early level of integration than with regard to changes over time. The differences found in the early level of integration suggest that, already prior to migrating, immigrants might invest to different degrees in host country skills and knowledge depending on their settlement plans. It should, however, be kept in mind that for the early level of integration, the reversed causal order is also possible. Since the early level of integration and settlement intentions were both measured in the first wave, it might also be that, shortly after arrival, it is the level of integration that shapes immigrants' settlement intentions. A reason for the lack of change over time could be the relatively short time span between both waves. It might take more time for immigrants to integrate into the Dutch society and, therefore, to detect effects of immigrants' settlement intentions. Since respondents had, on average, already spent seven months in the Netherlands in the first wave, we cannot be sure

whether the settlement intentions in the first wave are a cause of integration over time, or a consequence of prior integration experiences. Knowing the real initial settlement intentions of recent EU-immigrants would therefore have been preferred for making stronger claims about causal directions.

Even though not many changes in integration were found over time, our study still shows that settlement intentions are of importance in the integration of recent EU-immigrants. Especially the difference in integration between immigrants who intend to stay and immigrants who intend to leave is profound. Moreover, our findings point in the direction of an intermediate position for immigrants who intend to move back and forth, although more research on this is needed. Since EU-immigrants differ in their settlement intentions and this difference is related to their level of integration, policymakers need to be aware of these differences within the legal category of EU-immigrants. Focusing integration policies on those immigrants who intend to stay permanently will be important to develop more effective interventions. Alternatively, policymakers might want to target the settlement intentions of intra-EU immigrants directly upon arrival. The integration of these immigrants into their EU host society is likely to increase if these new immigrants can be motivated to maintain a permanent settlement intention.

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NOTES

1. This hypothesis is based on the assumption that a larger number of working hours indicates a higher level of integration. Across the entire duration of stay, this is a valid assumption, but it might be questioned shortly after arrival. Particularly those immigrants who plan to stay might invest in host country specific skills immediately after arrival and therefore delay their entry, or limit their participation in the labour market, as opposed to immigrants who plan to leave and therefore do not invest in host country specific skills. This alternative expectation is also in line with our general expectation derived from investment theory.
2. It should be noted that respondents were on average seven months in the Netherlands during the first wave. During this time their settlement intentions might have changed according to their integration experiences. Therefore, settlement intentions during the first wave are not necessarily the respondents' initial settlement intentions.
3. These results are rather in line with the alternative hypothesis that could be derived from investment theory and which posits that those who intend to stay will enter the labour market later or for fewer hours due to their investments in host country specific capital. The fact that those who intend to stay increase their working hours significantly over time adds further support to this alternative interpretation.

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