Local Norms and Moving Intentions:

The Mediating Role of Neighborhood Satisfaction

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Abstract

Previous research has shown that neighborhood (dis)satisfaction is an important determinant for individuals' moving intentions. Attempts by policy makers to boost neighborhood satisfaction, and hence reduce the exodus of people out of particular neighborhoods, have often involved physical interventions and development projects, such as new parks or infrastructure. In the present study, however, we consider this issue from a "communitarian" perspective, focusing on the role of positive neighborhood norms (e.g., strong local networks, mutual trust, and joint activities among neighbors) in boosting neighborhood satisfaction, and consequentially reducing inhabitants' moving intentions. Using a longitudinal design including two waves of the Netherlands Longitudinal Life-course Study (N = 2,553 Dutch adults), Study 1 demonstrates that perceived positive norms in a neighborhood predicted lower moving intentions of its residents, mediated through increased levels of neighborhood satisfaction. Study 2 (N = 235 Belgian students) corroborates these findings in an experimental design where norms were manipulated. Reading a scenario where local norms were positive (*vs*. negative), was associated with lower moving intentions, again via greater neighborhood satisfaction. We discuss potential implications for local policy makers and formulate avenues for future scientific research.

Key words: local norms; neighborhood satisfaction; moving intentions; longitudinal; experiment

Local Norms and Moving Intentions:

The Mediating Role of Neighborhood Satisfaction

An increasing body of literature has highlighted the relevance of various neighborhood characteristics in understanding residents' neighborhood satisfaction and moving intentions (Clark, Deurloo, & Dieleman, 2006; Feijten & Van Ham, 2009; Kearns & Parkes, 2003; Lee, Oropesa, & Kanan 1994; Lu, 1998; Parkes & Kearns, 2003; Van Ham & Feijten, 2008; Van Ham & Clark, 2009). At the same time, policy makers try to increase residents' neighborhood satisfaction in order to keep them attached to their neighborhood (Freeman, 2005), as relatively stable neighborhoods have various positive consequences (including good global and mental health; see Bures, 2003). On the other hand, 'transit' neighborhoods often come with a number of societal problems, such as higher perceptions of crime and lower psychological well-being (e.g., Ross, Reynolds, & Geis, 2000; Sampson, Raudenbusch, & Earls, 1997). Ideally, research should provide policy makers with evidence-based suggestions to aid them in achieving their goals (Choi et al., 2005).

Previous policy projects have often consisted of gentrification initiatives, physical interventions in targeted neighborhoods, and development projects, such as new parks or new residential or commercial buildings and infrastructure (e.g., Kearney, 2006; Kruger, Reischl, & Gee, 2007). However, proximity to shared green spaces was shown to have only a modest impact on neighborhood satisfaction (Kearney, 2006), the positive impact of public and neighborhood facilities was found to be rather moderate (Mohit, Ibrahim, & Rashid, 2010), and also the effect of new commercial centers was limited in increasing neighborhood satisfaction (Kruger et al., 2007). As such, we still lack a proper grasp on which neighborhood characteristics shape satisfaction and mobility (Clark et al., 2006; Van Ham & Feijten, 2008). Therefore, we advance that for a better understanding of this issue, psychological and

interpersonal processes should be considered, as they may play a key role in people's satisfaction with their neighborhood, and consequently their intentions to stay or move away. In the present paper, we propose positive neighborhood norms as an important predictor of residents' propensity to stay in a neighborhood, and argue that this relationship is mediated by neighborhood satisfaction.

Positive Neighborhood Norms as Predictor of Moving Intentions

In the early nineties, the well-known political scientist Robert Putnam introduced the concept of a "communitarian" understanding of social capital at the local level (Putnam, 1993; also see Woolcock & Narayan, 2000). This perspective emphasizes the importance of neighborhood characteristics for social life. In this light, we propose that neighborhood norms are important to take into consideration when predicting people's intention to stay in their neighborhood or move out. In a neighborhood setting, norms can be defined as unwritten social rules for interactions with other residents and one's behavior in public spaces (e.g. participation in common projects and neighborhood meetings, see Alaimo, Reischl, & Allen, 2010). In some cases, these norms may be negative and, for example, may deliberately exclude outsiders and impose general negativity on group members (Portes, 1998). This is often referred to as the "dark side of social capital" (Gargiulo, & Benassi, 1999; Portes & Landolt, 1996).

The presence of positive local norms, on the other hand, is known to greatly improve various aspects of social life in a local area (Putnam, 1993). Portes (1998) has even argued that such positive neighborhood norms constitute a key dimension of local neighborhood life. Positive neighborhood norms include, among other things, strong local networks, friendships, reciprocity, mutual trust, helping behaviors, neighborhood involvement, a sense of community, and joint activities. The experience of positive norms in the neighborhood is

expected to also have a positive impact on residents' intentions to stay in their own neighborhood. In line with this reasoning, there is some preliminary evidence that positive local norms and strong social bonds are indeed related to residential stability (Connerly, 1986; Speare, 1974). As such, we hypothesize that when neighborhood norms become more positive, moving intentions of its inhabitants are expected to decrease (Hypothesis 1).

Neighborhood Satisfaction as Underlying Mechanism

Environmental and community psychologists often apply a socioecological approach to the study of neighborhood effects (see Oishi & Graham, 2010). In particular, they study physical, societal and interpersonal mechanisms that explain the relation between ecological factors and their social outcomes. Following this perspective, our second research question examines through which process positive neighborhood norms are expected to result in less moving intentions. Positive local norms are anticipated to be an important basis of residents' satisfaction with and attachment to their neighborhood. Place attachment theory (Lewicka, 2011) strongly emphasizes the symbolic value of a "meaningful location" (Bronfenbrenner, 1977) one can identify with. Such close ties go along with feelings of community attachment, place attachment and satisfaction (Trentelman, 2009). When the norms in the local environment are positive, neighborhood satisfaction ratings are expected to be higher (cf. Kleinhans, 2009).

Neighborhood satisfaction, in turn, is often considered as a key predictor of moving intentions (e.g., Clark & Ledwith, 2006; Lee et al., 1994; Lu, 1998). Parkes and Kearns (2003), for instance, found that people who are dissatisfied with the overall quality of their neighborhood more often intended to move than people who were satisfied. As such, we propose that residents' satisfaction with their neighborhood can be considered as an "anchor" that prevents people from moving. In other words, it serves as a crucial mediating factor in the

relationship between positive norms in a local area and the mobility intentions of its population (cf. Bach & Smith, 1977; Landale & Guest, 1985; Newman & Duncan, 1979). Based on this reasoning, we hypothesize that the effect of positive norms in reducing moving intentions is expected to operate through higher neighborhood satisfaction (Hypothesis 2).

The Present Studies

Importantly, even though the associations between individual perceptions of positive neighborhood norms and neighborhood satisfaction on the one hand (e.g., Kleinhans, 2009) and between neighborhood satisfaction and moving intentions on the other (e.g., Lu, 1998; Morris, Crull, & Winter, 1976) have previously been established, no prior research has investigated neighborhood satisfaction as a mediator variable in the relationship between positive neighborhood norms and moving intentions. In other words, the propensity to move or stay as a result of perceived neighborhood norms (indirectly) through its impact on neighborhood satisfaction has not yet been investigated, neither cross-sectionally, nor longitudinally. In particular, the study of neighborhood processes over time should yield invaluable insights into the dynamic attitudinal and emotional changes that either push people out of their neighborhood, or motivate them to stay. Therefore, we employed a longitudinal approach to investigate this mechanism over time (Study 1). Additionally, we also employed an experimental approach to investigate whether a manipulation of local norms similarly determines moving intentions through neighborhood satisfaction (Study 2). These two studies as such aim to provide a deeper insight into the role of neighborhood norms as a key characteristic to understand neighborhood satisfaction, and how this satisfaction, in turn, relates to residential mobility. Understanding these processes may eventually help policy makers to foster more ‘stable’ neighborhoods (Permentier, Van Ham, & Bolt, 2009).

Controlling for Socio-Demographic Characteristics

When exploring the influence of neighborhood variables on moving intentions, it is crucial to control for a wide variety of individual characteristics that may significantly affect mobility decisions, as shown in prior research (see Crowder, 2000; also see Speare, 1974). In the present study we took six background and control characteristics into account. First of all, we included age and gender, as older individuals and males generally show lower moving intentions (Long, 1988; McLanahan, 1983). Moreover, in the heterogeneous sample of Study 1, we also controlled for participants' education level, since prior research has shown that the level of education relates positively to moving intentions by expanding awareness of alternative residential options (Long, 1973; South & Deane, 1993). In addition, larger family income may increase mobility by making a wider range of alternative housing options available, and by improving the ability to move in case of dissatisfaction with current residential conditions (Landale & Guest, 1985; Newman & Duncan, 1979). Because married persons tend to move less frequently than unmarried persons (South & Deane, 1993), marital status was also taken into consideration. Finally, the first study also controlled for number of persons in the household. We did so because the presence of more children tends to impede moving intentions by increasing ties to the local community and reliance on its resources and institutions (Rossi, 1955). Because we wanted to examine the role of perceived norms beyond these demographic features, these variables were included in our analyses as control variables.

Study 1

Method

Participants

We used a nationally representative sample of Dutch citizens without migration background from two waves of the Netherlands Longitudinal Life-course Study, specifically tapping into neighborhood norms, neighborhood satisfaction and moving intentions (NELLS;

Tolsma, Kraaykamp, de Graaf, Kalmijn, & Monden, 2014; see https://www.ru.nl/sociology/research/netherlands-life/). The NELLS study was approved by the Dutch Organization for Scientific Research (NWO), and samples were collected through face-to-face interviews and self-completion questionnaires in 2009 and 2013, henceforth referred to as time 1 (T1) and time 2 (T2), respectively.

Respondents at T1 were 2,553 adults.[1] Participants had a mean age of 32 years (*SD* = 9.08), and 47% were men. Sixty-nine percent had paid work, and monthly gross household income showed a fairly normal distribution (see Table 1). Political orientation also showed a normal distribution (*M* = 6.17, *SD* = 2.05 on a scale ranging from 0/left to 10/right). Finally, 73% of our sample had a partner (at least three months or longer), and 54% was married. The average number of persons per household was 3.32 (*SD* = 1.72). Of the T1 respondents, 1,716 respondents (67%) participated in the next wave (T2) of data-collection. We dealt with these missing data using the MLR likelihood estimator and FIML of M*plus* 7.4 (Muthén & Muthén, 1998-2015).

Table 1

Distributions of background variables in Study 1.

Education level[a]:	*Primary school*	*High school*	*College/University*	
	34%	29%	37%	
Geographic area:	*North/East*	*West/Centre*	*South*	
	34%	33%	33%	
Living area[b]:	*Metropolitan*	*City*	*Smaller city*	*Countryside*
	16%	23%	26%	34%
Monthly gross household income:	*< €1000*	*€1000-€2999*	*€3000-€4999*	*> €5000*
	23%	40%	24%	13%
Religious denomination:	*Catholic*	*Protestant*	*Muslim*	*Other*
	46%	42%	3%	8%

Note: [a]: A primary school degree equals completing elementary education (usually until the age of 12), a high school degree equals completing secondary education (usually until the age of 18), and a college or university degree equals completing tertiary (higher) education. [b]: The degrees of urbanization (defined by Statistics Netherlands) are as follows: extremely urbanized metropolitan areas (>2,500 addresses per square kilometer); strongly urbanized cities (1,500 to 2,500 addresses per square kilometer): moderately urbanized smaller cities (500 to 1,500 addresses per square kilometer); and hardly urbanized countryside (<500 addresses per square kilometer).

Instruments and Procedure

Perceived positive neighborhood norms. Respondents' perceptions of the norms within their neighborhood were measured with six statements that were scored on four-point Likert scales ranging from 1 (*not at all true*) to 4 (*totally true*). These items read: In your neighborhood… "do people like to help each other?"; "do people greet each other?"; "can people be trusted?"; "do people get along fine?"; "do people know each other?"; and "would people speak up if the youth would make trouble?" (Tolsma et al., 2014; see also Van Assche, Asbrock, Roets, & Kauff, 2018). Cronbach's alpha was .86 and .87 at T1 and T2, respectively.

Neighborhood satisfaction. Neighborhood satisfaction was measured by asking respondents to evaluate the statement "How satisfied are you with your neighborhood?" on a scale anchored by 1 (*not at all satisfied*) and 10 (*completely satisfied;* Tolsma et al., 2014; see also Cheung & Richard, 2014).

Moving intentions. Moving intentions were measured with four items (Tolsma et al., 2014; see also Van Assche et al., 2018). These items are: Within the next 2 years… "I would like to move to another neighborhood (in the same city)"; "I would like to move to another house"; "I would like to move to another city"; and "I would like to move to another country". Respondents answered these statements using four-point Likert scales ranging from 1 (*I would not want that at all*) to 4 (*I would want that a lot*). Cronbach's alpha of this scale was .81 at T1 and .83 at T2.

Results

Preliminary Analyses

Firstly, we analyzed the structure of our three variables to investigate whether they represent different constructs. Using parallel analysis (Horn, 1965), we found that the 'ideal' number of components in both waves was three components, with all items having primary loadings on their expected factor. Using Exploratory Structural Equation Modeling (ESEM; Asparouhov & Muthén, 2009), we found that the goodness-of-fit statistics of such three-factor model was significantly better than a two-factor model (i.e., changes in -2 * log-likelihood were $\chi^2(9) = 233.08$, $p < .001$ at T1; and $\chi^2(9) = 183.21$, $p < .001$ at T2), again indicating that the use of three separate constructs (i.e., perceived norms, neighborhood satisfaction, and moving intentions) is warranted for the purpose of this study. The fit indices for the final, three-factor model were CFI = 0.98, RMSEA = .05, and SRMR = 0.02 at T1; and CFI = 0.96, RMSEA = .07, and SRMR = 0.03 at T2.

Secondly, we conducted multivariate analyses of variance to test whether T1 scores of neighborhood norms, neighborhood satisfaction, and moving intentions significantly differed between the respondents who also completed the survey at T2 and those who did not. We found multivariate differences between the groups (Wilks' Lambda = 0.97, $p < .001$; $F(1,2451) = 43.90$, $p < .001$, $\eta^2 = .02$; $F(1,2451) = 12.63$, $p < .001$, $\eta^2 = .01$; and $F(1,2451) = 58.38$, $p < .001$, $\eta^2 = .02$; for norms, satisfaction, and moving intentions, respectively). In particular, those who also completed the T2 survey scored significantly higher on perceived norms ($M_{T1} = 3.45$, $SD_{T1} = 0.52$ vs. $M_{T2} = 3.29$, $SD_{T2} = 0.60$) and satisfaction ($M_{T1} = 7.49$, $SD_{T1} = 1.11$ vs. $M_{T2} = 7.31$, $SD_{T2} = 1.25$), and significantly lower on moving intentions ($M_{T1} = 2.03$, $SD_{T1} = 0.79$ vs. $M_{T2} = 2.30$, $SD_{T2} = 0.84$) compared to those who did not complete the T2 survey. Most importantly, however, the correlational pattern between all variables did not differ between the groups. More specifically, our analyses revealed that the correlations of norms with satisfaction ($r_{T2completed} = .41$ vs. $r_{T2notcompleted} = .37$; $Z = -0.98$; $p = .33$), norms with moving intentions ($r_{T2completed} = -.25$ vs. $r_{T2notcompleted} = -.26$; $Z = -0.44$; $p = .66$), and satisfaction with moving intentions ($r_{T2completed} = -.28$ vs. $r_{T2notcompleted} = -.30$; $Z = -0.57$; $p = .57$) did not significantly differ between those who also completed the survey at T2 and those who did not complete the survey at T2.

Cross-Sectional Analyses

We first computed correlations among all study variables (see Table 2). As expected, positive perceptions of neighborhood norms both at T1 and at T2 were positively related to neighborhood satisfaction at T1 and T2, and negatively related to moving intentions at both time points. Furthermore, higher neighborhood satisfaction at T1 and T2 was associated with lower moving intentions at both time points.

Table 2

Means, standard deviations, and correlations among study variables in Study 1.

Measure		M	SD	1	2	3	4	5
1.	Perceived norms T1	3.45	0.52	-				
2.	Neighborhood satisfaction T1	7.43	1.16	.40***	-			
3.	Moving intentions T1	2.12	0.82	-.27***	-.29***	-		
4.	Perceived norms T2	3.40	0.56	.51***	.30***	-.23***	-	
5.	Neighborhood satisfaction T2	7.64	1.37	.29***	.37***	-.20***	.50***	-
6.	Moving intentions T2	2.08	0.83	-.21***	-.19***	.41***	-.33***	-.35***

Note: ***: $p < .001$

We next conducted cross-sectional mediation analyses at T1 and T2 separately, using bootstrap analyses (5,000 bootstrap samples) in Hayes' Process macro (2013, Model 4). More specifically, we calculated the total, direct, and indirect effects to see if neighborhood satisfaction is a process underlying the norms - moving intentions association. Significant indirect effects would indicate that more positive perceived neighborhood norms relate to lower moving intentions (at least partially) because they relate to greater neighborhood satisfaction. Moreover, we controlled for the background variables that have previously been shown to affect moving intentions (i.e., age, gender, education, household income, marital status, and number of persons in the household).

The cross-sectional analyses at T1 indicated that there was a significant total (b = -0.27; SE = 0.04; CI_{95} [-0.35; -0.19]; β = -0.18; $p < .001$) and direct effect (b = -0.15; SE = 0.04; CI_{95} [-0.23; -0.07]; β = -0.10; $p < .001$) of perceived neighborhood norms on moving intentions. Most importantly, we found a significant indirect effect via neighborhood satisfaction (b = -0.12; boot SE = 0.02; CI_{95} [-0.16; -0.08]; β = -0.08; $p < .001$). Similarly, at T2, there were also significant total (b = -0.42; SE = 0.04; CI_{95} [-0.50; -0.34]; β = -0.28; $p < .001$), direct (b = -0.23; SE = 0.05; CI_{95} [-0.33; -0.13]; β = -0.15; $p < .001$) and indirect effects (b = -0.19; boot SE = 0.02; CI_{95} [-0.23; -0.15]; β = -0.13; $p < .001$). Hence, in line with our

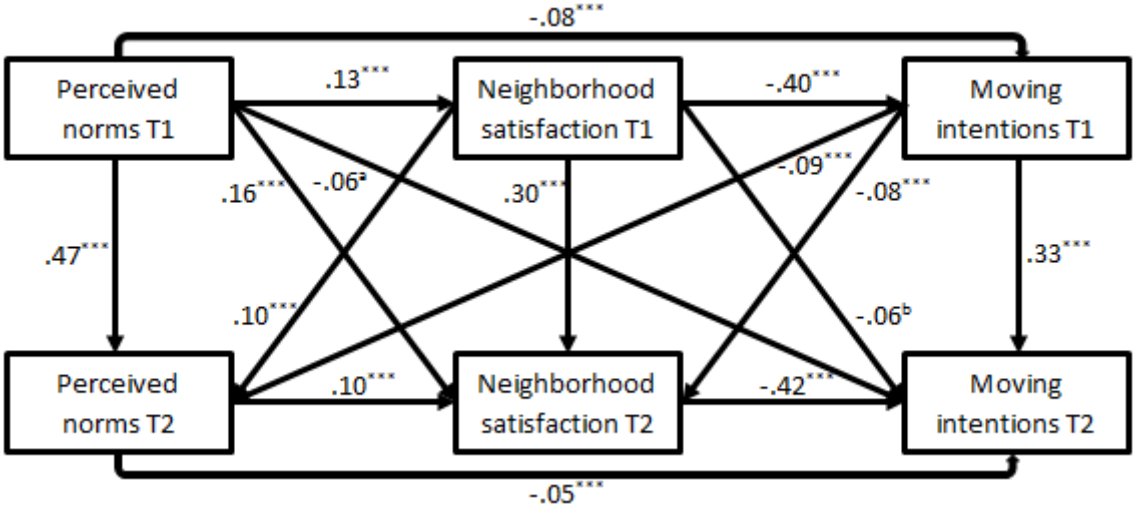
predictions, our cross-sectional analyses revealed that positive perceptions of norms within one's neighborhood were indeed associated with lower moving intentions at that specific time, and that this relationship was partly explained by higher neighborhood satisfaction.

Longitudinal Analysis

The cross-sectional analyses at T1 and T2 already provided evidence for satisfaction as the mediation process in explaining the relation between norms and moving intentions. Yet, to provide more conclusive evidence for this mediation, longitudinal analyses were conducted. We tested a two-wave model following the procedure by Cole and Maxwell (2003). This longitudinal mediation analysis, depicted in Figure 1, again revealed that there were significant total (b = -0.11; SE = 0.04; CI_{95} [-0.19; -0.03]; β = -0.07; p = .002) and direct effects (b = -0.09; SE = 0.04; CI_{95} [-0.17; -0.01]; β = -0.06; p = .015) of perceived neighborhood norms on moving intentions. Most importantly, a significant indirect effect (b = 0.39*-0.05 = -0.02; SE < 0.01; CI_{95} [-0.03; -0.01]; β = -0.02; Z = -2.35; p = .019) was found, indicating that perceived positive neighborhood norms were related to increased neighborhood satisfaction, which in turn related to lower moving intentions over time.

Figure 1

Standardized results of the models testing the longitudinal associations between perceived norms, neighborhood satisfaction, and moving intentions (controlling for demographics).



Note: ***: $p < .001$; [a] : $p = .022$; [b] : $p = .038$.

Change Analysis

A complementary analytic strategy is to calculate the difference (T2-T1) scores in our key variables and analyze if they are interrelated. Evidence for correlated difference scores (i.e., change associated with change) indicates a common underlying growth (Berry & Willoughby, 2016). On average, scores on perceived norms showed a slight drop over time (ΔM = -0.05, SD = 0.54), while scores on neighborhood satisfaction (ΔM = 0.15, SD = 1.41) and moving intentions (ΔM = 0.05, SD = 0.88) showed a slight increase.

We found that positive *changes* in perceived norms were positively related to both positive *changes* in neighborhood satisfaction (r = .30; $p < .001$) and also to higher *absolute* scores on neighborhood satisfaction at T2 (r = .24, $p < .001$). Positive *changes* in perceived norms were negatively related to positive *changes* in moving intentions (r = -.14; $p < .001$) and also to lower *absolute* scores on moving intentions at T2 (r = -.14, $p < .001$). Similarly, positive *changes* in neighborhood satisfaction were negatively related to positive *changes* in moving intentions (r = -.20; $p < .001$) and also to lower *absolute* scores on moving intentions at T2 (r = -.19, $p < .001$).

Finally, mediation analyses indicated that there was a significant total (b = -0.23; SE = 0.04; CI_{95} [-0.31; -0.15]; β = -0.14; p < .001) and direct (b = -0.15; SE = 0.04; CI_{95} [-0.23; -0.07]; β = -0.09; p < .001) effect of *changes* in perceived neighborhood norms on *changes* in moving intentions. Most importantly, we found a significant indirect effect via *changes* in neighborhood satisfaction (b = -0.09; boot SE = 0.01; CI_{95} [-0.11; -0.07]; β = -0.05; p < .001).

Brief Discussion

Taken these findings together, the present study provides longitudinal evidence for the association of local norms with moving intentions (Hypothesis 1), as well as for the mediating role of neighborhood satisfaction in this relationship (Hypothesis 2). That is, we found that increases (i.e., positive changes) in perceived norms were associated with decreases (i.e., negative changes) in moving intentions via increases (i.e., positive changes) in neighborhood satisfaction.

Study 2

Method

Participants

A sample of 235 first-year undergraduate students from a Belgian university were invited to the lab.[1] This research was conducted according to the ethical rules presented in the General Ethical Protocol of the Faculty of Psychology and Educational Sciences of Ghent University. Participants engaged in a scenario-based experiment in return for partial course credit (M_{age} = 19 years, SD_{age} = 3.98, with 24% men). Relative household income (assessed with a five-point Likert scale asking respondents to compare their family income with the average income level of the country) showed a fairly normal distribution, with M = 3.28 (SD = 0.72). In terms of religious affiliation, 61% of the sample identified with Christianity, 25%

was atheist, 6% Muslim, and 9% categorized themselves as belonging to an 'other religion'. After completing the informed consent, all respondents completed the full study, yielding no missing data.

Instruments and Procedure

Manipulation of neighborhood norms. Firstly, participants were randomly assigned to a positive (N = 119) or a negative (N = 116) neighborhood norms condition. In both conditions, they read a scenario which presented extensive information about a fictional neighborhood, including a neutral description of (the demographics of) its citizens, the city center, the town hall, the library and the church. Furthermore, respondents in both conditions read several positive (e.g., "A new park has been created") and negative (e.g., "Most buildings have been there for a long time and some look a bit rundown") statements about the general living conditions in the neighborhood. Finally, and most importantly, as part of the description, they also received information about the local norms. This information consisted of either positive or negative information (i.e., the manipulation), based on the items we used to tap into perceived norms in Study 1 (all the other information was exactly the same in the two experimental conditions).

In the positive condition, the relevant part of the text read: "Furthermore, most people in the neighborhood know each other well, greet each other often, they like contact with each other and there is a good local atmosphere. More so, the neighbors trust each other, help each other where necessary, and stand up if the young people in the neighborhood cause problems." Contrariwise, the description of the local norms in the negative condition read: "Furthermore, most people in the neighborhood do not really know each other well, they do not always greet each other, they do not often contact each other and there is a rather moderate local atmosphere. Even more, the neighbors do not really trust each other, they

hardly ever help each other, and would probably not stand up if the young people in the neighborhood would cause problems."

Check questions. After reading the scenario, participants completed two control questions (i.e., "How big is the new park?", and "What event is yearly organized in the neighborhood"). All respondents gave the correct answer (i.e., "21 hectares", and "a mussel eating festival", respectively). As a manipulation check, they also completed four items tapping into perceived local norms (e.g., "People in this neighborhood get along well"), on a scale anchored by 1 (completely disagree) and 7 (completely agree). Cronbach's alpha of this scale was .95. Next, our mediator and outcome variable were assessed.

Neighborhood satisfaction. Where Study 1 assessed neighborhood satisfaction with a single item, we administered a multiple-item scale in this study. Respondents answered four items ("I would feel at home in this neighborhood"; "I am satisfied about this neighborhood"; "I would like to live in this neighborhood"; "This neighborhood seems like a good thing") on a scale anchored by 1 (*completely disagree*) and 7 (*completely agree*). Cronbach's alpha of this scale was .95.

Moving intentions. Moving intentions were assessed with the same four items as in Study 1, using seven-point Likert scales. Cronbach's alpha of this scale was .74.

Results

Manipulation check

We conducted an analysis of variance to test whether perceived norms significantly differed between the respondents who read the scenario describing positive *vs*. negative local norms. We found a difference between the groups ($F(1,233) = 274.80$, $p < .001$, $\eta^2 = .54$). In particular, those who read the positive norm vignette scored significantly higher on perceived

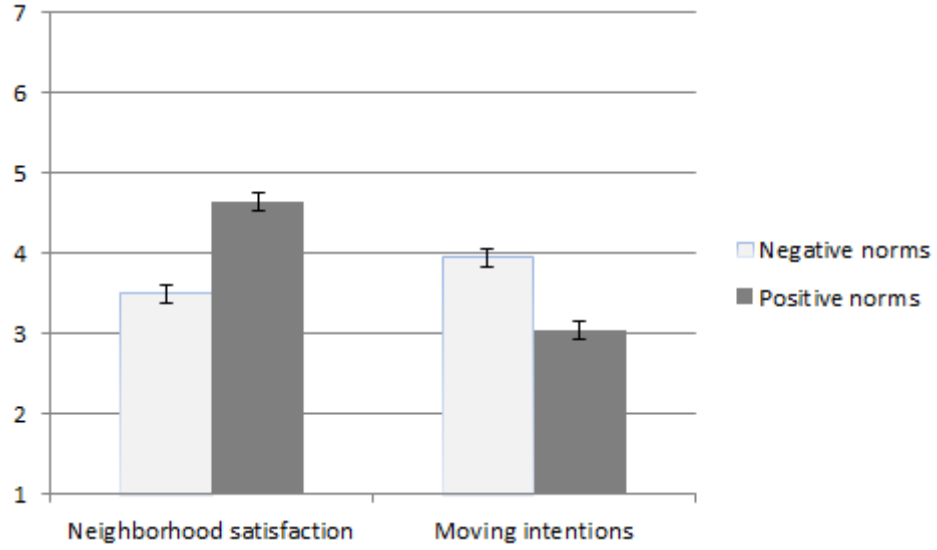
norms (M_{pos} = 5.29, SD_{pos} = 1.00 vs. M_{neg} = 2.81, SD_{neg} = 1.28; Cohen's d = 2.16; CI_{95} [1.84; 2.48]), compared to those who read the negative norm vignette.

Main Analyses

Via the same procedure, we tested whether neighborhood satisfaction and moving intentions significantly differed between the respondents who read the scenario describing positive *vs*. negative local norms. We found multivariate differences between the groups (Wilks' Lambda = 0.46, $p < .001$; $F(1,233) = 49.06$, $p < .001$, $\eta^2 = .17$; and $F(1,233) = 39.05$, $p < .001$, $\eta^2 = .14$ for satisfaction and moving intentions, respectively). In particular, those who read the positive norm vignette scored significantly higher on neighborhood satisfaction (M_{pos} = 4.64, SD_{pos} = 1.15 vs. M_{neg} = 3.50, SD_{neg} = 1.35; Cohen's d = 0.91; CI_{95} [0.64; 1.18]), and significantly lower on moving intentions (M_{pos} = 3.04, SD_{pos} = 1.12 vs. M_{neg} = 3.95, SD_{neg} = 1.15; Cohen's d = -0.80; CI_{95} [-1.07; -0.54]) compared to those who read the negative norm vignette (see Figure 2).

Figure 2

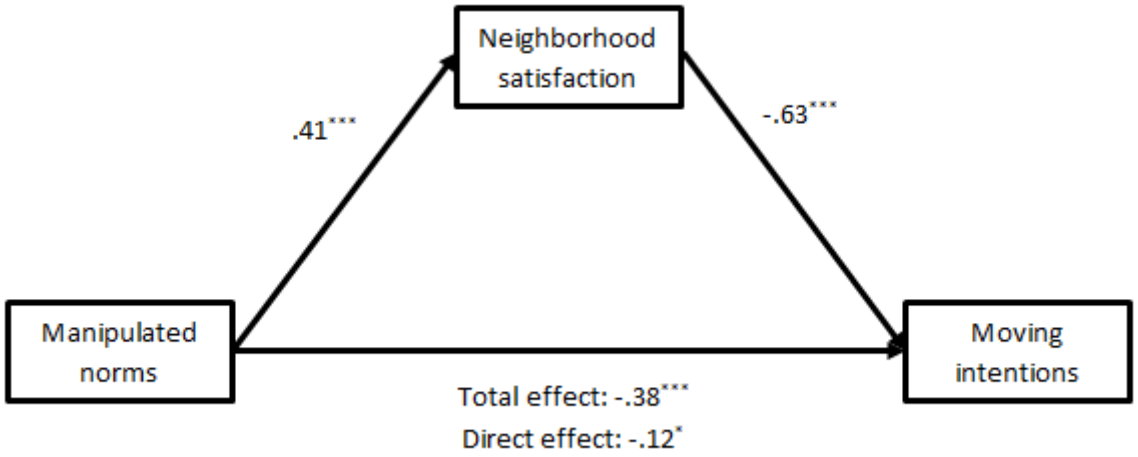
Mean plots (with 95% confidence interval error bars) of the effects of manipulated norms on neighborhood satisfaction (left panel), and on moving intentions (right panel).



We next conducted a mediation analysis, calculating the total, direct, and indirect effects of the manipulated neighborhood norms on moving intentions through neighborhood satisfaction. Moreover, we controlled for age, gender, and household income. There was a significant total (b = -0.91; SE = 0.15; CI_{95} [-1.20; -0.62]; β = -0.38; p < .001), and direct effect (b = -0.28; SE = 0.13; CI_{95} [-0.53; -0.03]; β = -0.12; p = .03) of reading the positive *vs.* negative norm vignette on moving intentions (see Figure 3). Most importantly, we found a significant indirect effect via neighborhood satisfaction (b = -0.63; boot SE = 0.11; CI_{95} = [-0.86; -0.43]; β = -0.26).

Figure 3

Standardized results of the model testing the effect of manipulated norms on moving intentions via neighborhood satisfaction (controlling for demographics).



Note: ***: p < .001; *: p = .03. The conditions were coded 1 (positive norms) *vs.* 0 (negative norms).

Brief Discussion

The results of this study corroborate the finding of Study 1, by using an experimental (instead of a longitudinal) design. More specifically, the results of the present study indicate that experimentally manipulated positive (*vs.* negative) local norms were associated with lower moving intentions (Hypothesis 1), and that this relationship was partially mediated via higher neighborhood satisfaction (Hypothesis 2).

General Discussion

In the present research, we considered the effects of positive neighborhood norms on reducing moving intentions via higher levels of neighborhood satisfaction. Positive neighborhood norms can be seen as an important part of the "social glue" that holds communities together. Indeed, positive norms have been associated with a range of positive outcomes for local neighborhood life (Putnam, 1993). Our proposed mediation model predicted that positive neighborhood norms result in higher neighborhood satisfaction, which in turn relate to lower intentions to move away to another neighborhood. We found consistent evidence for this pattern using both a longitudinal (Study 1) and an experimental (Study 2) design.

Neighborhood Life: A Delicate Story

The question of what makes people leave or stay in a particular neighborhood is a key issue for local policy makers and city developers. The results of the present set of studies indicates that neighborhood norms and their effect on neighborhood satisfaction play a substantial role in determining people's intention to move. Indeed, the results of Study 1 showed that individuals' intentions to move greatly depended on their perceptions of positive neighborhood norms such as strong local networks and neighborhood involvement (Hypothesis 1). Moreover, the latter effect was largely due to citizens' increased satisfaction with their neighborhood when norms are positive (Hypothesis 2). As such, this study integrated previous findings concerning the associations between positive norms and neighborhood satisfaction (e.g., Kleinhans, 2009), and between neighborhood satisfaction and moving intentions (e.g., Lu, 1998) into a coherent longitudinal mediation design, thereby presenting the first evidence of a key processes underlying moving intentions over time. Based on the findings of our first study, we can conclude that positive neighborhood norms

can be regarded as the "bright side of social capital" (cf. Portes & Landolt, 1996), which over time positively affect varies aspects of social life in a local area.

In the second study, we experimentally manipulated the norms within a particular neighborhood (while keeping all other information about this neighborhood constant). Interestingly, the results of this scenario-based experimental study showed a very similar pattern. Indeed, we found that those respondents who read the story presenting positive local norms - compared to those that read the vignette presenting negative norms - were less inclined to move away from this neighborhood (Hypothesis 1), and this effect was partially explained by higher levels of (anticipated) satisfaction with the neighborhood (Hypothesis 2). Together, our studies thus provide strong evidence for our proposed mediation model.

The present findings hence raise an important practical issue concerning the question of how these crucial positive local norms can be promoted. Building on the effective description of the neighborhood in the positive norms condition, an operative way to encourage positive local norms could be by creating shared neighborhood goals and a mutual dependency where residents have the opportunity to get to know each other, cooperate successfully with each other, and in general learn to get along with each other. In line with this reasoning, prior research has revealed that small and non-intrusive, organized events in which neighbors get the opportunity to interact with each other effectively boost residents' local bonds and satisfaction with their neighborhood (e.g., Kleinhans, 2009). Promoting contact between neighbors through small, low-cost communal events that create affinity and social ties may be the key for policy makers in their efforts to manage the local atmosphere, and eventually curb residents' intentions to move away.

Another way to foster positive neighborhood norms might be by creating green spaces or community allotments where neighbors can grow vegetables or flowers together (Ward

Thompson, Aspinall, Roe, Robertson, & Miller, 2016). Apart from a 'direct' effect on reducing stress and stimulating physical activity, such green spaces facilitate contact among neighbors and social cohesion (de Vries, van Dillen, Groenewegen, Spreeuwenberg, 2013), whereas their absence is related to feelings of loneliness and perceived shortage of social support (Maas, van Dillen, Verheij, & Groenewegen, 2009). Hence, by simultaneously constructing green areas and organizing small events, policy planners can be holistic in their efforts to push local norms in a positive direction. These investments in large development projects (e.g., green spaces or infrastructure) might help 'set the stage' for events and opportunities that bring people together and create positive local norms, which can then enhance residents' place belonging and neighborhood satisfaction, and eventually reduce their intentions to move.

Avenues for Future Research: An Untold Story

A vital strength of the present research pertains to the use of a longitudinal and an experimental approach to investigate the positive effect of positive local norm on lowered moving intentions, and an important mechanism that underlies this effect. A second strength of our study is the inclusion of multiple well justified control variables (cf. Bernerth & Aguinis, 2016; Van Assche et al., 2018). However, although our study provides new and significant insights into the effects of norms in shaping individuals' moving intentions via satisfaction, it also calls for more research.

Two issues for future research pertain to the fact that, in Study 1, we ran a secondary analysis of an already existing dataset. First, this procedure resulted in samples where the majority of respondents had a unique neighborhood (i.e., zip code). To further corroborate our findings, future studies are encouraged to collect clearly nested data with more observations per contextual unit. Such studies could purposefully select broader units of analysis (e.g.,

cities or districts), which would allow the examination of whether local norms play a similar role at a larger contextual level. Although previous studies have indicated that factors in the local neighborhood make a strong impression on individuals (because the neighborhood represents the most direct geographical environment in which people spend most of their social time; see Tolsma, van der Meer, & Gesthuizen, 2009), we see the incorporation of various contextual levels as an important avenue for future research (cf., Van Assche, Roets, De keersmaecker, & Van Hiel, 2016).

Secondly, the secondary data used in Study 1 only provided one single item to assess our key mediator (i.e., neighborhood satisfaction). In Study 2, however, we were able to administer a reliable multiple-item measure of satisfaction, finding very similar effect sizes. In Study 2, however, a limitation resides in the use of undergraduate students that are unlikely to have had much real-world experience of moving. As such, their attitudes and intentions as reported in an artificial lab setting may not represent the behavior of the wider population, particularly lower-income and less-educated households that are typically less mobile (Long, 1973; South & Deane, 1993).

Finally, future studies could explore the role of other predictors and mediators that potentially predict additional variance in individuals' moving intentions. For instance, the current model can possibly be further expanded with additional predictors such as territorial displays, quality of neighborhood services, affordable housing (see Brown, Brown, & Perkins, 2004), and interesting mediators such as residential attachment (Fried, 1982; Galster & Hesser, 1981). Moreover, an important moderator of the norms - moving intentions association could be whether one's accommodation is owned or rented. If a neighborhood becomes gentrified, rents might go up and some tenants might no longer be able to afford their house/apartment. Hence, future studies could examine whether the relation between positive norms and lower moving intentions is weaker (and even non-existent) among tenants

compared to among house owners. To conclude, although the present study adds a crucial piece of the puzzle that goes beyond previous research by unraveling a key mechanism underlying the effects of local norms, it should be regarded as an initial step, and we encourage future research to further develop this interesting theoretical framework.

Notes

[1] Post-hoc sensitivity analyses, conducted with the 'pwr' package (Champely, Ekstrom, Dalgaard, Gill, & De Rosario, 2015) in R (version 3.3.1; R Core Team, 2015), indicated that our power was well above the recommended standard of .90 in both studies (power $\geq$ 99.99).

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