



Discussion Paper SFM 27

Didier Ruedin

The Role of Social Capital in the Political Participation of Immigrants

Evidence from Agent-Based Modelling

November 2011

Table of Contents

1	Introduction	4
2	Methodology	9
3	Findings	12
4	Discussion	16
5	Conclusion	19
6	Acknowledgement	20
7	References	20

1 Introduction

Human rights define fundamental rights, and the right to participate in politics is one such fundamental right. Both the ability to take part in processes of decision-making, and the actual rates of participation can be of interest. In either case, participation in politics can take many forms. For instance, it is possible to take part in politics in person, such as a candidate for office. Participation in politics can also be indirect, such as when an individual tries to influence others to shape political outcomes. Research on political participation tends to focus on elections rather than other forms of participation. This is partly due to the frequency and centrality of elections in most political systems, but also due to the availability of data. This paper will examine a range of possibilities. To do so, the paper employs a computer simulation, drawing on the mechanisms suggested in the literature. Although the simulation is not specific to any place, the simulated outcomes are compared to survey results from the US and Western societies in the late 1990s as a test of validity.

Although participation in politics is a fundamental right, not all groups in society participate in politics to the same extent. For instance, individuals with higher levels of education, or older citizens are routinely found to participate more frequently and to a greater extent than the remainder of society. The fact that different groups participate to a different extent can be problematic if the views and preferences of certain groups are dominant and shape policy outcomes more than the views and preferences of other groups. For this reason, equitable participation is seen as a means to ensure the representation of preferences (Bühlmann and Freitag 2006; Pitkin 1967). Indeed, where certain groups participate in significantly reduced numbers, this is often taken as a sign that there might be hurdles to participation preventing certain groups and individuals to participate.

The centrality of political participation is underlined in theories of democracy. In this context, the equality of individuals is highlighted (Dahl 1985), and the assumption is that all citizens – or depending on the approach, the entire population: the demos – should be able to take part. It is by participating in politics that the population gains political influence and power, thus making democracy work.

In general terms, political participation can be defined as the "activity by private citizens designed to influence government decision-making" (Hutington & Nelson, 1996, cited in Uhlaner 2004, 11078). Participation is here understood in terms of empowerment. To a certain extent, citizens are given an opportunity to take control of their own lives, and holding government to account (Croft and Beresford 1993; Kleppner 1982; Verba *et*

al. 1993). It has also been argued that by participating in politics, citizens demonstrate a certain degree of allegiance to the system (Kleppner 1982). In other words, by taking part in political activities individuals can express their preference of democracy over other forms of government. Consequently, political participation may also play an important role in maintaining social cohesion. The allegiance to the democratic system may be a core value that unites different individuals in an otherwise individualistic society.

As outlined in detail below, this paper uses a broad understanding of political participation. Included is a range of activities rather than focusing solely on voting. Following Milbrath (1965), participation in politics is conceptualized in a hierarchical manner: "persons who engage in the topmost behaviours are very likely to perform those lower in rank also" (1965, 17-8). In other words, political participation is conceived in a cumulative manner. Metaphors of pyramids and ladders of participation are commonplace in the literature to describe such an understanding. Individuals are understood to be involved in all political activities up to a certain threshold (figure 1).

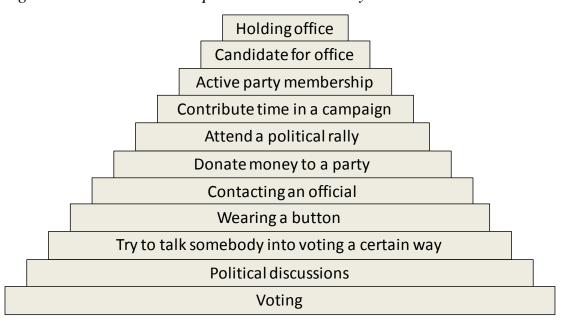


Figure 1 : Political Participation as a Hierarchy

Note: Political participation is conceptualized in a hierarchical manner, following Milbrath (1965).

In the literature, the understanding of political participation has seen a marked expansion in scope and shift of research focus (Burdick and Brodbeck 1959; van Deth 2001). In the 1940s and 1950s, the focus of studies was entirely on voting. Since then, the scope has expanded to include conventional participation, then unconventional participation, and finally civic participation (figure 2). Conventional participation refers to voting, campaigning, contacting a representative, donating money to a political party, or participation in collective action. Unconventional participation includes

direct action, consumer protest, or different forms of political violence. Civic participation describes participation in society more generally to include participation in forms outside the formal realm of politics, such as participation in civic society groups or voluntary associations. With each expansion of scope, the applications of political participation expanded (Axford *et al.* 1997; Croft and Beresford 1993; van Deth 2001; Musick, Wilson, and Bynum 2000; Upright 2004). This paper focuses on conventional participation, although it takes an inclusive view what constitutes conventional participation.

Voting Campaign Contact Collective Action Political Violence

Political Participation

Conventional Participation

Figure 2: Conventional and Unconventional Political Participation

Note: Political participation entails a range of political actions. Conventional participation and unconventional participation are commonly distinguished, although there are overlaps.

Unconventional Participation

Since the earliest studies of political participation, a key question has been who participates in politics and who abstains. To answer this question, an understanding is necessary as to why individuals choose to participate in politics. Across all forms of political participation, it can be observed that many individuals do not participate, and that those who participate are often not representative of the wider population (Pitkin 1967; Prior, Steward, and Walsh 1995). Immigrants in Western societies are one group who are consistently found to participate less than the mainstream population (Cho 1999; Oriol 1995; Eggert and Giugni 2010; Sciarini 2010). This paper is interested why immigrants in particular are subject to lower rates of participation.

There are different approaches in the literature to explain different rates of participation for different groups. As in other areas of the social sciences, rational choice and rational action approaches are widely applied to political participation. These approaches are often defended as a logically coherent approach covering human behaviour more generally (Baert 1998; Laver 1997). Applied to political participation and voting more specifically, the expectation is that "every rational man decides to vote just as he makes all other decisions: if the returns outweigh the costs, he votes; if not, he

abstains" (Downs 1957, 260). However, rational choice theories struggle to explain why anyone would vote at all. It is an application of the free-rider problem that affects political participation at its core. Individuals can benefit from the outcome of an election without participating (Olson 1971). At the same time, individual efficacy is severely limited, because the single vote of an individual rarely is decisive in an election. Seen this way, the costs of participation seem to outweigh the returns. The inclusion of benefits of expressive nature – such as maintaining a particular political identity – have been suggested as a means to maintain rational-choice approaches in the context of political participation. In other words, individuals may be participating because it allows them to express their political identity, not because they can influence the outcome of an election. A different argument is that the cost of voting may be so low that utility calculations are not applied (Crouch 1977; Teixeira 1987). For example, Crouch (1977) found that in terms of voting there are few persistent abstainers, with the implication that utility calculations are not used. For participation at higher levels, it has been suggested that individuals participate because others do not, suggesting particularly high costs (Oliver 1984). Indeed, for political participation beyond voting, arguments of expressive benefits seem more persuasive.

With the expansion of political participation beyond voting, the scope of studies was increased from individual acts to include collective action, such as participation in demonstrations and political protests (Hirschman 1982; Verba, Nie, and Kim 1978). What is more, the time between elections was increasingly scrutinized. By including participation beyond voting, the focus has also shifted from rationality to political psychology, where individual traits such as sociability or a willingness to give are considered (Jones-Correa and Leal 2001; Milbrath 1960; Milbrath 1965). In recent years, the concept of social capital is frequently used to summarize many of these aspects. Social capital is concerned with interaction in small groups, especially face-to-face contact. Social capital can be defined by the combination of dense social ties and a high level of trust. In this paper, I focus on the density of social ties, that is the number of contacts and individual has in the community. It is assumed that generally high levels of trust will follow.

Differences in social capital have been suggested as a reason why certain groups participate more in politics than others, and this paper applies this idea to the political participation of immigrants. In Western societies, immigrants constitute a group 1 frequently found to participate less that other

_

¹ I use the term *group* here and in the following as a grouping of individuals defined externally through their shared characteristic of having migrated (or their parents having

groups. They are less likely to vote in elections, less likely to stand as candidates, less likely to join political organizations, and generally less likely to actively take part in political life (Cho 1999; Oriol 1995). These observations apply in particular to immigrants of the first generation: individuals who have migrated to the country of destination. It has been noted that the second generation of immigrants also participates less frequently than the mainstream society, but the differences are less marked than for the first generation of immigrants (Sciarini 2010). It appears that over time, differences between immigrants and the mainstream society disappear because immigrants change their political behaviour. Very similar patterns can be observed for political attitudes: the parties and policy positions supported by individuals. The political behaviour of secondgeneration immigrants can be understood as half-way positions between those of first-generation immigrants and the mainstream society (Inglehart and Norris 2009; Saalfeld 2010). Interestingly, perhaps, among immigrants, individuals who are more interested in politics appear to participate at a rate more similar to the mainstream society in a shorter period of time (Saalfeld 2010). Put differently, having an interest in politics means that individual immigrants are more likely to change their political behaviour to be in line with the mainstream society. Interest in politics does not immunize individuals from being influenced by new surroundings, but rather makes them more likely to adjust to the new environment.

The social capital often cited in the context of political participation is linked to personal contacts and strong ties with other members of the community. It is probably the mutual trust generated through close relationships and having a real stake in the community that act as a resource (Musick, Wilson, and Bynum 2000). In this sense, contacts can be understood as capturing levels of social capital. Contacts and more generally social capital are thought to facilitate participation in politics; indeed, for certain activities social capital might be necessary in the first place. In smaller communities, it appears easier to develop high levels of social capital. This can be explained with the mutually reinforcing strong ties among community members, leading to network closure (Burt 2000). Social networks linked with mutual trust provide important contacts that can facilitate participation in politics (Peterson 1990; Verba, Schlozman, and Brady 1995).

Contacts with others in the community are important particularly at higher levels of participation. In this case, individuals are often asked to participate (Snow, Soule, and Kriesi 2007), and support from individual networks may

migrated). This does not imply that immigrants necessarily regard themselves as a coherent group, nor that they should be regarded as a group in all contexts.

be necessary for successful participation (Peterson 1990). Put differently, social capital – approached through contacts in the community – is an important resource for participation in politics, particularly for levels higher than voting.

This paper examines the role of social capital and contacts as a possible mechanism as to why immigrants in particular might be prone to lower levels of participation. The basic argument is as follows. To some degree, the act of migrating means losing vital contacts. This loss of contacts may not be total, since advances in telecommunication and transportation mean that it has become easier to maintain existing contacts. Despite these advances, in most cases migration means losing contacts in the sense that regular interpersonal contact is limited. In other words, the act of migrating may turn strong ties into weak ties. These strong ties and the regular intensive face-to-face communication they entail are understood as constituting social capital. Indeed, in the literature, residential mobility is sometimes taken as an indicator of social ties (Lai and Siu 2006; Pettit and McLanahan 2003).

Following the argument outlined, the expectation in this paper is that the extent to which immigrants participate in politics is reduced compared to individuals who did not migrate. This is the case because migration means losing contacts and a relative loss of social capital. The reliance on simulation means that this paper can work towards a better understanding of the nature of relevant ties. The following hypotheses are formulated in the literature:

- Ha1: *Individuals who have spent more time in their current community participate more often* (Lane 1959; Milbrath and Goel 1977)
- Ha2: Restrictive residence requirements reduce levels of participation (Milbrath and Goel 1977)
- Ha3: *Individuals with more personal contacts tend to participate at higher levels* (Berelson, Lazarsfeld, and McPhee 1954; Lane 1959)
- Ha4: *Individuals with more personal contacts tend to participate more often* (Milbrath and Goel 1977)
- Ha5: Individuals with more personal contacts are less swayed by others, and they have a more stable history of participation (Lane 1959)

2 Methodology

In this paper, agent-based modelling (ABM) is used to examine whether social capital is a plausible mechanism for explaining political participation. A key difference between agent-based modelling and statistical analysis is how mechanisms are identified. In statistical analysis, the actual mechanisms

are unobservable, and have to be induced from the association between independent variables and observed results. There are numerous ways to make plausible inferences, but the path between variables and results remains ultimately unknown. In agent-based modelling, in contrast, the mechanisms are created, and by isolating certain paths from others it become possible to tell whether a particular mechanism can lead to plausible results. Having modelled the mechanisms, it is sure that the influence is as claimed, but it remains possible that different variables shape the observed reality. Agent-based modelling is thus able to make claims about the plausibility of specific mechanisms, but like other methods, it is unable to rule out alternative explanations. Another advantage of ABM lies in the ability to capture the dynamic nature of social phenomena such as political participation (Epstein and Axtell 1996; Oliver 1984).

The model used in this paper is implemented using the approach outlined by Gilbert and Troitzsch (1999; 2005). In a first step, social processes are abstracted into a model. This paper uses the model introduced by Milbrath with a few modifications to make the simulation more manageable (Ruedin 2007). In a second step, the model is programmed and run to produce data using estimated parameters. These simulated data are compared to existing data in a third step. Existing data may be data collected by survey methods. In a final step, the comparison of the simulated and collected data is used to make statements about similarity and thus validity. If the simulated data and the observed data are similar, it is assumed that the simulation presents a plausible mechanism.

In order to make inferences about the political participation of immigrants, this paper uses an agent-based computer simulation of Milbrath's (1965) model of political participation. Whilst the model is relatively old, it is still cited frequently, and the model offers a thick description of plausible mechanisms. A key advantage of Milbrath's approach is that it includes a wide range of conventional forms of political participation in a single model. Political participation is conceptualized as spectator activities (voting, political discussions, try to talk somebody into voting a certain way, wearing a button), transitional activities (contacting a public official, donating money to a political party, attending a political rally), and gladiator activities (contributing time in a campaign, active party membership, being candidate for office, holding office). These different forms of participation are arranged as a pyramid, with fewer individuals involved at the higher levels. Unconventional forms of participation are not covered by the model.

The simulation used comprises 1500 individuals, and it was run for the equivalent of 250 weeks, with elections at regular intervals. The level of participation is recalculated at the end of each round, during which individuals not only migrate with a given probability, but also interact with

one another, and are exposed to external stimuli. Levels of participation follow strict rules, but stochastic elements are also included. By varying the probabilities of moving, interaction, and stimuli, the simulation can reflect different political regimes and political moods. For example, repressive regimes often restrict interpersonal contact (Bienen and Morell 1975). Similarly, the campaigning before elections can be simulated with an increased number of external stimuli being sent to all individuals.

Individuals are simulated as having a range of characteristics that affect their propensity to get involved in politics, including being active, overt, autonomous, expressive, or social. Individuals can have a felt duty to participate, a characteristic that is fixed. The other characteristics are all more or less open to change according to the dynamics of the system; the likelihood that such changes occur is dependent on the dynamics of the system. Two factors of the simulation are particularly relevant for immigrants and social capital. The simulation records the time individuals have spent in a particular community, and the number of contacts they have in the community.

In Milbrath's model, a range of factors is suggested as affecting participation in politics. They essentially revolve around individual characteristics, external stimuli from the political environment, and interpersonal contact. Participation in politics is conceptualized in different levels, which allows for a plausible more or less intensive involvement. Moving across the threshold from one level to the next depends on the characteristics of the individual. For example, an extremely passive person is unlikely to become involved in politics in the first place; or a person not comfortable with overt political acts is unlikely to put a sticker of the chosen party on his or her car. The likelihood of immigrants participating in politics is calculated exactly the same way as for other individuals.

A clear limitation of Milbrath's model is that the political sphere is captured only via stimuli. This means that political opportunities to participate are not included. Put differently, opportunities to participate are implicitly assumed unlimited. The inclusion of stochastic elements in the model means that this omission of political opportunities is less serious as it could be, because the model does not predict that everyone with an interest to stand as a candidate actually does so. What is more, it can be argued that stimuli indirectly reflect political opportunities, in the sense that a more open environment allows for more stimuli to be sent. Future research may extend the model to include different political opportunities and explore the influence of opportunities on levels of participation.

Using agent-based modelling, the results of the model used are inherently dynamic in nature. This can be used to assess the plausibility of the results

across time. On the one hand, it can be examined if patterns of participation appear realistic in a general sense. This is done by comparing the simulated data with descriptions of political participation. On the other hand, it can be examined whether the results react in a realistic manner to specific interventions in political environment. On both accounts, the model used provides realistic results of a dynamic equilibrium, indicating validity (Ruedin 2007). In other words, the model seems appropriate to examine the political participation of immigrants.

3 Findings

There is much evidence in the literature that having roots in the community is necessary for participation in politics. This is most commonly interpreted as the need of having spent a significant time in the community (Davidson 1994; Hemmings, Silva, and Thompson 2002; Stone and Schaffner 1988; Warr 1970). In other words, the expectation is that *individuals who have spent more time in their current community are more likely to participate in politics* (Ha1). This association is also reported in retrospective life-course analysis (Andrew 1991). As newcomers to the community, immigrants can therefore be expected to participate less often, as is indeed commonly the case. Using agent-based modelling, however, this paper can go further by differentiating the time spent in the current community and the contacts an individual has within the community.

The results from the simulation suggest that spending time in the community alone is not a significant factor. For most of the levels of political participation modelled, the differences are not significant (r=0.03, p>0.05). In other words, other things being equal, recent newcomers to a community are as likely to participate as those who have spent their entire life in the community. Similarly, at the aggregate level, levels of participation are not significantly different in worlds where individuals move frequently between communities, and worlds where individuals move less frequently (p>0.05). In a world where individuals move frequently, the average time spent in the community is lower.

The second hypothesis in this paper stipulates that *restrictive residence* requirements reduce levels of participation (Ha2). Whilst residence requirements were simulated to affect only the right to vote, the results suggest that because of the dynamic nature of political participation curtailing the right to vote affects levels of participation in a particular way. Individuals still participate in politics, but in less visible ways. Apart from increasing non-participation, restrictive voting rights lead to political discussions rather than wearing a button, for instance. For most levels of participation, there is a significant reduction in participation (p<0.001). The exception is

participation at the highest levels, which appear to be immune to restrictive voting regulations.

Applied to immigrants, this result suggests that immigrants may choose less visible forms of political participation where they are prevented from participating formally. At the same time, the simulation suggests that participation at higher levels is much more dependent on personal characteristics. This finding reflects recent findings by Gerber *et al.* (2011) on the importance of personalities in political participation. Gerber *et al.* applied the Big Five personality traits to different forms of participation, giving further credence to the mechanisms outlined in this paper. The results may mean that an immigrant with a keen interest in politics and an appropriate social network – whilst unable to actually run for office – may choose an active role in a political party, for example. Taken together, the results from the simulation suggest that restrictive residence requirements affect lower levels of participation most. These are the forms of participation studied most frequently, such as voting (Anderson and Zelle 1998; Bartels 1993).

The third hypothesis of this paper is concerned with social capital in the sense of interpersonal contacts. It suggests that the role of social capital is constituted as follows: *Individuals with more personal contacts are expected to participate at higher levels* (Ha3). The results suggest that this is indeed the case. The number of contacts correlates highly with the level of participation (r=0.60, p<0.001). Immigrants are affected by this expectation as they are newcomers to their current community, and they may not have developed high levels of social capital (Coleman 1990; B. Turner 2002). In this paper, immigrants are not distinguished other than their movement from one place to another.² As aforementioned, the movement to a different community means that personal connections are cut. The assumption here is not that immigrants lose all contact with their community of origin, but that remaining contact is reduced in frequency and intensity. More importantly, however, the contacts with the community of origin are thought to be largely irrelevant to political participation in the new community.

Since in the model individual characteristics are unchanged when people move from one place to another, their sociability remains the same. This means that individuals with many contacts in the community of origin are likely to make many new contacts in the new community. What is important,

_

² This means that the model makes a range of assumption that may be addressed in future research. The propensity to move is modelled independently from personal characteristics, and all individuals are equally likely to move. What is more, in the model, the movement in itself does not affect the characteristics and attitudes of the individuals.

however, is that such making contact takes time - a fact reflected in the model. By using the computer simulation, it is possible to disentangle effects of time and effects of contacts. Following the fact that individuals with more contacts have a higher chance to be asked to participate (Snow, Soule, and Kriesi 2007), and being asked is a major factor determining actual participation, the expectation is that contacts may be more important than the time spent in the community. In real settings, the two may be difficult to disentangle, because time spent in the community is associated with having social contacts. Individuals who are more sociable, however, are likely to have more contacts and make them more quickly. Indeed, once controlling for the actual time spent in the community, the correlation between the number of contacts and the level of participation increases from 0.60 to 0.75 (p<0.001). This indicates that the time spent in the community indeed accounts for social contacts, but for two individuals who have spent the same time in the community, the one with more contacts is more likely to participate in politics.

The fourth hypothesis looks at a different aspect of social contacts. It stipulates that *individuals with more contacts tend to participate more often* (Ha4). With less contact between individuals, levels of participation are generally lower (p<0.001). Levels of participation are significantly lower for voting, but for higher levels, the differences are more marked still. This finding fits well with the argument that declining social capital reduces participation in politics (Putnam 2000). The only form of participation not affected by lower numbers of contacts is individuals who directly contact officials. This result is significant for immigrants, who might lack sufficient contacts with the mainstream society, and thus lack relevant social capital to participate in politics. The contacts within the immigrant community in this case may not be sufficient to overcome deficits in social capital relevant to participation in politics more generally.

The last hypothesis regards opinion leaders. The expectation is that *individuals with more contacts are opinion leaders and therefore less swayed* by others. This means that they have a more stable history of participation (Ha5). In this paper, a more stable history of political participation is understood as individuals changing less frequently between different levels of participation. The number of level changes, however, is not significantly correlated with the number of contacts in the community (r=0.20, p>0.05). The sign of the correlation is as predicted.

The results are somehow in line with the observation that individuals with more interest in politics and more contacts in the community are more likely to change their views to adjust to the dominant views in the new community (Saalfeld 2010). Unfortunately, the involved mechanisms are not spelt out in the literature: how exactly having more contact means that individuals adjust

more to the new political environment. It is important to note that the analysis in this paper does not model the influence of individuals on others or changes in opinion. The model used only covers participation at different levels, not which political party is supported.

The simulation can be used to model the difference between sub-populations with a higher feeling of duty to participate and sub-populations with lower felt duty. It is assumed that the felt duty to participate is a characteristic that generally does not change after a critical age of socialization (Stone and Schaffner 1988). As such, immigrants will bring their level of felt duty as they migrate, which can lead to sub-populations with different felt duty. For example, individuals from former communist countries are found to participate at particularly low levels (Meister 2005), which can be understood in terms of norms of participation: the felt duty to participate in democratic processes. Using the simulation, the impact of such felt duty on different levels of participation can be captured. The most significant differences are found for individuals who are not even interested in politics on the one hand, and for voters on the other (p<0.05). With increased felt duty, there are fewer individuals completely uninterested, and they vote more frequently. Beyond that, changes are less marked. Interestingly, however, the simulated results also suggest substantive differences at higher levels of participation. Participation rates are slightly higher for activities at the intermediate level of the hierarchy, whilst activities at the highest levels are unaffected (p>0.05).

An analysis of individual histories of political participation reveals that in the simulation participation in politics usually builds gradually. In line with observations from the real world, there are only 9.5% persistent abstainers. Large jumps up and down the hierarchy of participation are rare, and most commonly linked to migration where regulation prevents individuals from participating in the new community. Once residence requirements are overcome, such individuals often quickly regain their former level of participation, quickly making the necessary contacts. In the simulation, the building of social networks and making contacts within the community are shaped by the characteristics of the individual – particularly being sociable –, not out of rational calculations that social ties may be necessary to achieve a certain position. In this sense, the simulation suggests that participation in politics can be more of a by-product of one's characteristics than rational calculation to obtain positions of power. This fits well with qualitative reports that one of the major reasons individuals do not participate at higher levels is that they were never asked to (Snow, Soule, and Kriesi 2007). Such a mechanism, of course, does not preclude the possibility that some individuals actively seek positions of power.

4 Discussion

This paper used an agent-based simulation of Milbrath's model of political participation to explore the political participation of immigrants. The mechanisms suggested – social capital and the importance of contacts in the community – are compatible with observed results. In the absence of evidence to the contrary, this can be taken as evidence that the outlined mechanisms are plausible. This is not to deny that there are other plausible mechanisms, such as the influence of party mobilization, political opportunities, signalling identity, or habit.

In line with previous studies, participation in politics was found to be associated with education (Parry, Moyser, and Day 1992; Peterson 1990), and socioeconomic status (Anderson and Zelle 1998; van Deth 1997). In addition, the simulation confirms previous findings that psychological aspects and personality traits can play an important role (Ashford 1972; Froman 1961). More recently, the importance of personality traits was picked up by Gerber et al. (2011). The importance of interpersonal contact and imitation suggests that immigrants do not necessarily maintain their old values and patterns of political behaviour when they move. It follows that removing formal barriers preventing immigrants from participating in politics would not necessarily endanger the current state of affairs. It is generally those with roots in a community who are more involved in politics (van Deth 1997; Lane 1959; Peterson 1990; Verba, Schlozman, and Brady 1995), and immigrants are no exception here. Whilst they may maintain their values and patterns of behaviour initially, immigrants at that stage lack a deep relationship necessary for serious participation. With the establishment of interpersonal contacts with members of the mainstream society and the development of roots, immigrants become influenced by their new environment as their likelihood to participate in politics increases.

To some extent, contacts and social capital form a positive feedback loop in the model used. Individuals with more social capital and contacts often participate at higher levels. Participation at higher levels, in turn, means more interaction, leading to yet more contacts. Indeed, it is possible to see participation in politics as a by-product of a dense social network, which means an increased chance of being asked to participate at higher levels. Individual characteristics and motivations, however, will determine whether an individual asked to participate at higher levels will actually do so. For explaining the different patterns of participation of immigrants, only the density and nature of social ties with the mainstream society are relevant in this regard. Both for immigrants and the mainstream society, the impact of social capital and interpersonal contact can be observed especially at higher levels of political participation.

The simulation fits psycho-emotional studies of participation (Braud 1988), and life-course descriptions that suggest that personal communication is a key factor behind participation in politics (Andrew 1991). In other words, social capital and a dense network of social ties are conducive to participation in politics. The level of trust generated in social networks may increase the probability of individuals who are asked to participate in politics actually showing willingness to participate. Political participation only occurs where individuals have contacts and there are other stimuli. Put differently, we observe a self-selection of those interested in politics among those with sufficient social capital and interpersonal links.

It has been observed that among immigrants, those more interested in politics are closer to the mainstream society (Brown 1988). This means that we do not expect immigrants to vote as a block – that is immigrants bringing fixed values and attitudes with them – where immigrants have developed an interest in local politics. The expectation differs for places with compulsory voting. In this case, we can expect that individuals without a strong interest in politics are forced or strongly encouraged to participate, and with that, individuals are participating who maintain values and attitudes dominant in their previous community. In the short term, this may lead to a certain degree of block voting.

This paper showed that time spent in a community alone does not cause participation. The quality of interaction is crucial where social capital and interpersonal contacts may be necessary, especially for participation at higher levels. The quality of interaction is relevant for the participation of immigrants, where living in a particular place may not necessarily mean having meaningful social ties with the mainstream society. Of interest for political participation is how interaction is initiated. This is an aspect currently neglected in research on political participation.

These findings do not contradict the importance of having roots of some sort in the community, but clarify that roots in this case constitute a meaningful network including members of the mainstream society. In other words, immigrants can be considered integrated in the sense that their social network is part of the mainstream society and not clearly separate (Ruedin 2011). By having meaningful social ties with members of the mainstream society, immigrants to some extent cease to be members of a separate community, and can therefore be understood as having clear stakes in the mainstream society, rather than the smaller immigrant community. It follows that the focus of political participation for such integrated individuals is the mainstream society.

The reasons as to why individuals change their focus, and particularly as to why individuals interested in politics seem to change their views more

quickly are not well developed in the literature. It seems plausible that imitation and socialization in the social network are the reason for the observed changes. Such imitation may not be conscious, as was demonstrated in the case of overweight people (N. Christakis and J. Fowler 2007; J. H. Fowler and N. A. Christakis 2010) or divorce (Åberg 2011). A particular political culture and habits of non-participation are sometimes cited as reasons why immigrants participate less in politics (Graumann 1965; Tizard and Hughes 1984). In this context, socialization is reduced to the time individuals grow up. The idea is that individuals develop a particular pattern of political behaviour depending on what is customary and acceptable in the community they grow up. The immediate group and environment play an important role here. Clear patterns of political behaviour within a group need not be a sign of group closure, since in some cases patterns of conformity can be attributable to factors external to the group (Fehr and Fischbacher 2003). Relevant for the political participation of immigrants is that focusing on social ties and social networks can help understand the changes in political participation over time. Further research is necessary to verify whether the stipulated mechanisms are likely to be at work in the case of political participation.

For immigrants, the initial lack of relevant social ties in the new community suggests that restrictive regulation may not be the sole cause for low levels of participation. For the majority of new immigrants, a lack of interest in politics seems in part caused by lack of contacts and having a real stake in the community. This means that they are less likely to participate than members of the mainstream society. The exceptions are individuals who quickly make new contacts, and may be particularly interested in participating in politics. Such individuals may quickly overcome the informal hurdle of social capital, and currently struggle with formal restrictions. In this case, participation in informal forms of politics, such as direct action and protesting may be the only options. Because of the outlined self-selection, it appears that residence requirements for immigrants can be low without affecting local politics in a substantive manner.

The paper suggests that the most common measure of having roots in a community (time) may not capture the relevant mechanism. Roots in a community are often equated with having spent a long period of time in a particular community. The results from the simulation suggest that time as such is not the relevant factor, but having social ties with other members of the community is. Put differently, living in a place in itself does not mean that individuals have a real stake in society. It is once individuals become involved that they develop the necessary social capital to be part of society. The contacts and resulting interpersonal trust are conducive to participation in society and politics in particular. For the political participation of

immigrants, the results seem to suggest that interactive integration is necessary for participation at higher levels.

Following the findings in this paper, the differences in political participation that exist between different immigrant groups (Sciarini 2010; Mazzoleni and Masulin 2005; Eggert and Giugni 2010) may be explained with their social capital – or more specifically with their contacts with the mainstream society. With a focus on returning home in the future, some immigrant groups remain reluctant to make contact with the mainstream society. In this case, individuals interested in politics tend to focus on associations within their society (Eggert and Giugni 2010; Wayland 1995).

The specific context may also shape levels of participation. Where formal barriers prevent immigrants from participating, opportunities may exist for immigrants to participate in unconventional forms. As with conventional forms of political participation, social capital appears to be a central factor for unconventional forms of participation. Without contact to the mainstream society, immigrants may lack the necessary contacts to make say a protest visible in the media, and thus participate effectively. In this regard, some differences may exist between the US and Europe. In Europe, immigrants normally spend a long time as non-citizens who are disallowed from formal politics. This may socialize certain immigrants into non-participation. The results of the simulation suggest that the distinction between conventional and unconventional forms of participation and effects of socialization may be of low significance compared to the role of social capital and interpersonal contacts.

5 Conclusion

This paper has used agent-based modelling to simulate political participation. Throughout the paper, the focus was on immigrants. In addition to the generally found importance of education and socioeconomic status, the paper highlighted the importance of social capital for participation in politics. A key finding in this regard is that contacts appear to be most important to establish roots rather than having spent a long time in a community. Perhaps having interpersonal contacts is a better reflection of having a real stake in a community. It also helps understanding why simply providing information on political opportunities may not increase levels of participation of immigrants. Instead, social capital and contacts with the mainstream society seem relevant for the participation of immigrants. In other words, interactive integration in society may lead to participation in politics.

6 Acknowledgement

I would like to thank ROSITA FIBBI (University of Neuchâtel) for her valuable feedback on an earlier draft of this paper.

7 References

- Åberg, Y. 2011. The contagiousness of divorce. In *The Oxford Handbook of Analytical Sociology*, ed. P. Hedström and P. Bearman. Oxford: Oxford University Press.
- Anderson, C., and C. Zelle, eds. 1998. Stability and Change in German Elections: How Electorates Merge, Converge, or Collide. London: Praeger.
- Andrew, M. 1991. *Lifetimes of Commitment: Aging, Politics, Psychology*. Cambridge: Cambridge University Press.
- Ashford, A. 1972. *Ideology and Participation*. London: Sage.
- Axford, B., G. Browning, R. Huggins, B. Rosamond, and J. Turner. 1997. *Politics: An Introduction*. London: Routledge.
- Baert, P. 1998. *Social Theory in the Twentieth Century*. Cambridge: Polity Press.
- Bartels, L. 1993. "Messages received: The political impact of media exposure." *American Political Science Review* 87 (2): 267-85.
- Berelson, B., P. Lazarsfeld, and W. McPhee. 1954. *Voting: A Study of Opinion Formation in a Presidential Campaign*. Chicago: The University of Chicago Press.
- Bienen, H., and D. Morell. 1975. *Political Participation under Military Regimes*. London: Sage.
- Braud, P. 1988. The Garden of Democratic Delights: For a Psycho-Emotional Reading of Pluralist Systems. London: Praeger.
- Brown, T. 1988. *Migration and Politics: The Impact of Population Mobility on American Voting Behavior*. London: University of North Carolina Press.
- Bühlmann, M., and M. Freitag. 2006. "Individual and Contextual Determinants of Electoral Participation." *Swiss Political Science Review* 12 (4): 13-47.
- Burdick, E., and A. Brodbeck, eds. 1959. *American Voting Behavior*. Westport: Greenwood Press.

- Burt, R. 2000. The network structure of social capital. In *Research in Organizational Behavior*, ed. B. Staw and Sutton. New York: Elsevier.
- Cho, W. K.T. 1999. "Naturalization, socialization, participation: Immigrants and (non-) voting." *Journal of Politics* 61 (4): 1140–1155.
- Christakis, N., and J. Fowler. 2007. "The spread of obesity in a large social network over 32 years." *The New England Journal of Medicine* 357 (4): 370-379. doi:10.1056/NEJMsa066082.
- Coleman, J. 1990. Foundations of Social Theory. Cambridge: Harvard University Press.
- Croft, S., and P. Beresford. 1993. *Getting Involved: A Practical Manual*. London: Open Services Project.
- Crouch, C. 1977. Participation in Politics. London: Croom Helm.
- Dahl, R. 1985. A Preface to Economic Democracy. Cambridge: Polity Press.
- Davidson, D. 1994. Psychology and philosophy. In *Readings in the Philosophy of Social Science*, ed. M. Martin and L. McIntyre. Cambridge: MIT Press.
- van Deth, J. 2001. *Studying political participation: Towards a theory of everything?* http://www.essex.ac.uk/ecpr/events/jointsessions/paperarchive/grenoble/ws3/deth.pdf.
- van Deth, J., ed. 1997. Private Groups and Public Life: Social Participation, Voluntary Associations and Political Involvement in Representative Democracies. London: Routledge.
- Downs, A. 1957. An Economic Theory of Democracy. New York: Harper & Row.
- Eggert, N., and M. Giugni. 2010. "Does Associational Involvement Spur Political Integration? Political Interest and Participation of Three Immigrant Groups in Zurich." *Swiss Political Science Review* 16 (2): 175-210.
- Epstein, J., and R. Axtell. 1996. *Growing Artificial Societies*. Washington: Brookings Institution Press.
- Fehr, E., and U. Fischbacher. 2003. "On the nature of human altruism." *Nature* 425: 785-92.
- Fowler, J. H., and N. A. Christakis. 2010. "Cooperative behavior cascades in human social networks." *Proceedings of the National Academy of Sciences* 107 (12): 5334-5338. doi:10.1073/pnas.0913149107.
- Froman, L. 1961. "Personality and political socialization." *Journal of Politics* 23 (2): 341-52.

- Gerber, Alan S., Gregory A. Huber, David Doherty, Conor M. Dowling, Connor Raso, and Shang E. Ha. 2011. "Personality traits and participation in political processes." *The Journal of Politics* 73 (03): 692-706. doi:10.1017/S0022381611000399.
- Gilbert, N., and K. Troitzsch. 1999. Simulation for the Social Scientist. Buckingham: Open University Press.
- ——. 2005. Simulation for the Social Scientist. Maidenhead: Open University Press.
- Graumann, C. 1965. Denken. Köln: Kiepenheuer & Witsch.
- Hemmings, S., E. Silva, and K. Thompson. 2002. Accounting for the everyday. In *Understanding Everyday Life*, ed. T. Bennett and D. Watson. Oxford: Blackwell Publishers.
- Hirschman, A. 1982. Shifting Involvements: Private Interests and Public Action. Oxford: Martin Robertson.
- Inglehart, R., and P. Norris. 2009. "Muslim integration into Western cultures: Between origins and destinations." *HKS Faculty Research Working Paper Series* 9 (7). http://web.hks.harvard.edu/publications/workingpapers/citation.aspx?PubId=6478.
- Jones-Correa, M., and D. Leal. 2001. "Political participation: Does religion matter?" *Political Research Quarterly* 54 (4): 751-770.
- Kleppner, P. 1982. Who Voted? The Dynamics of Electoral Turnout, 1870–1980. New York: Praeger.
- Lai, G., and Y. M Siu. 2006. "Residential Mobility and Social Capital in Urban Shanghai." *Asian Journal of Social Science* 34 (4): 573–599.
- Lane, R. 1959. *Political Life: Why People Get Involved in Politics*. Glencoe: The Free Press.
- Laver, M. 1997. Private Desires, Political Actions: An Innovation to the Politics of Rational Choice. London: Sage.
- Mazzoleni, O., and M. Masulin. 2005. "Modèles de citoyenneté et mobilisation politique des migrants en Suisse: Le rôle des cantons." *Swiss Political Science Review* 11 (2): 55-81.
- Meister, C. 2005. Das Wahlverhalten der Eingebürgerten in der Schweiz. Licentiate, Zürich: University of Zurich.
- Milbrath, L. 1960. "Predispositions toward political contention." Western Political Quarterly XIII: 5-18.
- ——. 1965. *Political Participation: How and Why Do People Get Involved in Politics?* Chicago: Rand McNally College Publishing Company.

- Milbrath, L., and M. Goel. 1977. *Political Participation: How and Why Do People Get Involved in Politics?* Boston: Rand McNally College Publishing Company.
- Musick, M., J. Wilson, and W. Bynum. 2000. "Race and formal volunteering: The differential effects of class and religion." *Social Forces* 78 (4): 1539-70.
- Oliver, P. 1984. "If you don't do it, nobody else will': Active and token contributions to local collective action." *American Sociological Review* 49 (5): 601-10.
- Olson, M. 1971. *The Logic of Collective Action*. London: Harvard University Press.
- Oriol, P. 1995. "Les immigrés dans les urnes." *Migrations société* 7 (42): 17-41.
- Parry, G., G. Moyser, and N. Day. 1992. *Political Participation and Democracy in Britain*. Cambridge: Cambridge University Press.
- Peterson, S. 1990. *Political Behaviour: Patterns in Everyday Life*. London: Sage.
- Pettit, Becky, and Sara McLanahan. 2003. "Residential Mobility and Children's Social Capital: Evidence from an Experiment." *Social Science Quarterly* 84 (3): 632-649. doi:10.1111/1540-6237.8403009.
- Pitkin, H. 1967. *The Concept of Representation*. Los Angeles: University of California Press.
- Prior, D., J. Steward, and K. Walsh. 1995. *Citizenship: Rights, Community and Participation*. London: Pitman Publishing.
- Putnam, R. 2000. *Bowling Alone: The Collapse and Revival of American Community*. New York: Touchstone Books.
- Ruedin, D. 2007. "Testing Milbrath's 1965 Framework of Political Participation: Institutions and Social Capital." *Contemporary Issues and Ideas in Social Sciences* 3 (3).
- ———. 2011. "Conceptualizing the integration of immigrants and other groups." *COMPAS Working Paper* 89.
- Saalfeld, T. 2010. *Toward a Strategic Model of Minority Participation and Representation* presented at the International Conference of the Council for European Studies, April 15, Montreal.
- Sciarini, P. 2010. L'impact du vote des Etranger/ères sur la politique suisse December 9, Lausanne.

- Snow, D., S. Soule, and H. Kriesi, eds. 2007. *The Blackwell Companion to Social Movements*. Oxford: Wiley Blackwell.
- Stone, W., and P. Schaffner. 1988. *The Psychology of Politics*. London: Springer-Verlag.
- Teixeira, R. 1987. Why Americans Don't Vote: Turnout Decline in the United States 1960–1984. London: Greenwood Press.
- Tizard, B., and M. Hughes. 1984. *Young Children and Learning: Talking and Thinking at Home and at School*. London: Fontana Press.
- Turner, B. 2002. Citizenship. In *Social Differences and Divisions*, ed. P. Braham and L. Janes. Oxford: Blackwell Publishers.
- Uhlaner, C. 2004. Participation: Political. In *International Encyclopedia of the Social & Behavioural Sciences*, ed. N. Smelser and P. Baltes. Amsterdam: Pergamon.
- Upright, C. 2004. "Social capital and cultural participation: spousal influences on attendance at art events." *Poetics* 32: 129-43.
- Verba, S., N. Nie, and J. Kim. 1978. *Participation and Political Equality: A Seven-nation Comparison*. Cambridge: Cambridge University Press.
- Verba, S., K. Schlozman, and H. Brady. 1995. *Voice and Equality: Civic Voluntarism in American Politics*. London: Harvard University Press.
- Verba, S., K. Schlozman, H. Brady, and N. Nie. 1993. "Citizen activity: Who participates? What do they say?" *American Political Science Review* 87 (2): 303-18.
- Warr, P., ed. 1970. Thought and Personality. London: Penguin.
- Wayland, S. 1995. *Immigrants into Citizens: Political Mobilization in France and Canada*. Doctoral Thesis, University of Maryland. http://ceris.metropolis.net/virtual%20library/other/wayland1/wayland1 b.html.