

I WILL JOIN IF YOU JOIN! THE IMPACT OF SOCIAL NETWORKS ON LOCAL PARTICIPATION CHOICES

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ABSTRACT

The size and characteristics of the social network of an individual are known to be related to the extent of civic engagement. However, how social networks influence the decision to participate is not clear yet. Until now, the findings on social networks and participation are mostly based on cross-sectional or in some cases longitudinal data that show which network characteristics are related to participation. In this paper we take a different perspective by focusing on the choice people make whether to participate or not. Our aim is to understand the key determinants of the decision to participate, in particular the role of a person's social network. We use a discrete choice experiment to study this decision, where in the experiment we ask respondents to choose between several types of local activities (including the option to select none). A novelty is the inclusion of choice attributes referring to social interactions. Using a choice experiment has the major advantage that it enables to investigate causal relationships and to disentangle the importance of specific choice determinants. In addition, using a choice experiment makes it possible to study the considerations of people who currently do not participate.

OBJECTIVE AND CONTRIBUTION

The size and characteristics of the social network of an individual are known to be related to the extent of civic engagement (Paik & Navarre-Jackson, 2010; Wilson & Musick, 1998; Ryan et al., 2005; Vermeij & Gieling, 2016). For instance, Wilson and Musick (1998) found that the number of friends, frequency of informal social interaction, network density and frequency of formal social interaction are positively related to the diversity of volunteering activities and the number of hours volunteered. However, how social networks influence the decision to participate is not clear yet. The findings on social networks and participation until now are most often based on studies using cross-sectional or in some cases longitudinal data investigating which network characteristics are related to participation (e.g. Wilson & Musick, 1998; Ryan et al., 2005; Lee & Brudney, 2009).

This paper takes a different perspective by focusing on the decision to participate in an additional activity or not. Our aim is to gain more insights in the key determinants of the decision to participate, in particular the role of a person's social network. Furthermore, we investigate whether the importance of these aspects varies with personal characteristics, like age, gender and education.

We use a discrete choice experiment (DCE) (see Louviere et al., 2000) to study the decision to participate. In these choice experiments, each alternative is characterized by a set of attributes that is relevant for the subject of the experiment. The DCE method was originally developed in marketing and

transportation economics (see e.g. Louviere & Hensher, 1982), in sociology studies the amount of applications are fairly limited (Liebe et al., 2016; Beyer & Liebe, 2015).

The novel DCE that we develop includes attributes referring to social interactions in the experiment. We include a social attribute which captures the characteristics and the group composition of people already participating in the activity. An important assumption is that individuals choose the alternative which they prefer most, or in economic terms which maximizes their perceived utility or value. Traditionally, this is an individualistic approach in which social dimensions of decision making are ignored (Paez et al., 2008). It is increasingly acknowledged that the perceived utility or pay-off an individual receives from a given action depends directly on the choices of others in the individual's reference group' (Brock & Durlauf, 2001: p.235). Still, to our knowledge there are few examples of discrete choice experiments in which these social interactions are included in the attributes (Buskens & Weesie, 2000; Kinghorn & Willis, 2008), which is surprising as the DCE allows for the possibility to offer exogenous variation in the 'social' attributes, something that hardly can be established using revealed preference data.

The contribution of this paper is twofold. First, we provide new insights into the choice determinants of people to participate in an additional activity or not. Second, we provide a tractable approach on how to measure the impact of social interactions on choices using discrete choice experiments.

The DCE we develop offers several advantages for studying participation over other approaches. First of all, it gives the possibility to investigate *causal* relationships between social attributes and individual choices, because the social attribute is systematically varied by the researcher. This makes it possible to study the relative importance of social attributes compared to other choice determinants such as time invested in the activity and monetary remuneration. Second, using a choice experiment makes it possible to study the choice determinants of people who currently do not participate, while research on participation most often focuses on people who actually participate. Our study gives new evidence on the choice determinants of participating in an additional activity taking the current situation of respondents as given.

RELEVANCE

In the Netherlands, a history of active voluntary associations and high levels of trust partly explain the high level of local (community) engagement (Erlinghagen & Hank, 2006). Both the recent economic crisis and the growing number of people that rely on pensions inspired the Dutch government to reform the 'reactive and passive Dutch welfare state into a proactive and activating welfare state' and to better use this high potential of (local) engagement (Delsen, 2016, p. 8). This means that the government increasingly expect residents to use their talents and time 'in the service of society' (Delsen, 2016, p. 8).

More insight in the determinants of the choice to participate provides new insights for policy makers or organisations in need of volunteers how to motivate different groups of residents to participate. More insight in the role of social networks in the decision to participate might also help to promote participation in an indirect way, for instance by providing meeting places in a village or neighbourhood,

enabling the development of social ties among residents (Lenzi et al., 2013). On the other hand, more insight in the role of social networks in participation could lead to more realistic expectations regarding the levels of local engagement, in particular in neighbourhoods or villages where social networks are under pressure, for instance due to the arrival of many in-migrants or high rates of out-migration (Joseph & Skinner, 2012).

The extent of civic and political activity varies across individuals. It is often suggested that residents who choose to volunteer 'are typically degree educated, middle aged and of higher social class' (Morgan 2013, p. 384). Some authors point to the risk that voluntary organisations can therefore have an exclusive character, being only accessible to particular groups in a community (Gielsing & Haartsen, 2016). In this way the focus of policy makers on participation could increase existing social inequalities (Tonkens, 2014; Williams, 2002). More insight in the mechanisms behind this process where 'birds of a feather flock together' (McPherson et al., 2001) may provide tools to help making participation a more diverse phenomenon.

SOCIAL NETWORKS AND PARTICIPATION

An important motivation for participation is the so called relational motive: to meet other people who have the same focus of interest and to make friends (Prouteau & Wolff, 2008). By including an attribute in our experiment about the composition of the group of people taking part in the activity, we can investigate whether people prefer to cooperate with people they already know or whether they prefer to meet new people. This provides insights into whether participation strengthens existing networks or enlarges them. We also investigate to what extent the principle of 'homophily', the preference for ties with persons similar to yourself (McPherson et al., 2001) is important in the choice to participate. We do this by including the gender and age composition of the group of people taking part in the activity.

It is assumed that one of the mechanisms behind the relationship between social network and participation is recruitment: knowing more people increases the chance of being asked to participate in some way (Brady et al., 1995). Being recruited is indeed found to be an important determinant of volunteering or participation more in general (Paik & Navarre-Jackson, 2010; Yoruk, 2007). However, the relative importance of recruitment in the decision to participate is less clear until now, and more in particular, to what extent does the strength of the tie with the person who recruits play a role? And does this differ for tasks that require more time or a longer commitment? Paik & Navarre-Jackson (2010) point out that it might be expected that individuals who are embedded in networks of bonding social capital may very well feel considerable social pressure to say yes to recruitment attempts, whereas individuals embedded in bridging networks are more likely to have more autonomy which makes them more likely to refuse. They find some support for this, by showing that for people being asked to volunteer, religious involvement as an indicator of bonding social capital, increases the probability of volunteering. However, in their study they do not have information whether the request to volunteer indeed came from the bonding network related to the religious involvement. Our choice experiment enables us to measure to what extent the strength of the tie with the recruiting person explains the choice to participate in an additional activity.

METHODS AND DATA

When modelling actions and choices of individuals discrete choice modelling (DCM) has proved its merits. In this kind of models the most likely choice of an individual decision maker among a set of discrete choices is estimated (McFadden, 1989). The input for these kinds of models can be both revealed choices (past behaviour), as well as stated choices based on a set of (hypothetical) alternatives. In this study, we collect information about both. We ask respondents to list current participation activities. However, our focus is on asking them about *potential new activities* for which we use a choice experiment framework. In the experiment, the alternatives (potential activities) that the respondents can choose from are characterized by a set of carefully selected attributes that are relevant for the subject of the experiment.

SURVEY DESIGN

The data for this research are collected by means of an online questionnaire among a sample of residents of the Dutch municipality Utrechtse Heuvelrug. It is located near the central, urbanized part of the Netherlands, the Randstad area. The municipality (around 50.000 inhabitants) consists of seven villages, ranging in size from around 1200 inhabitants to around 18.000 inhabitants. The survey will be carried out in February and March 2017.

We developed our questionnaire on the basis of a literature review and a series of semi-structured interviews. We interviewed 12 people who participate on the local level, in their village. In addition to this, we interviewed 4 people working within the municipal government for whom participation and active citizenship are a main part of their working task. This qualitative approach provides rich, in-depth information about decision-making processes and considerations which makes it a valuable input for designing the discrete choice experiment, in addition to the literature review. With the interviews we aim to explore whether the aspects identified in the literature review and the expected relationships between them appear to be relevant for these respondents and also to investigate whether we have missed relevant elements in the theoretical framework. We have used the outcomes of the interviews to support the design of a realistic choice experiment, both with regard to selecting alternatives and attributes as well as with regard to the wording used by respondents with regard to the subject of participation. To obtain meaningful results it is important that the choices presented in the DCE resemble choices made in real life by the respondents (Hess & Rose, 2009).

The online questionnaire was developed in Sawtooth SSIWeb (Sawtooth Software, 2008). After developing the questionnaire we conducted a pilot study with a group of 11 respondents, composed of different ages and education levels. This provided very useful insights, for instance resulting in rephrasing the introduction to the experiment. It also led to the decision to split the choice experiment into two experiments, discussed further below.

In addition to the choice experiment, we included questions about several demographic and socio-economic characteristics in the questionnaire. Furthermore, we inquired about the current activities of the respondent relating to participation, the size and composition of the social network, the degree of attachment to the village and neighbourhood and satisfaction with life in general and satisfaction with some more specific aspects of life, like their place of residence.

Because age and life-cycle stage are important determinants of participation, we used a stratified sample based on three age groups 18-35; 36-65; >65 years old. We selected 5 percent of the residents within each town which resulted in a sample of 2000 persons. Respondents were invited by means of a letter sent by mail to fill in the online questionnaire.

CHOICE EXPERIMENT

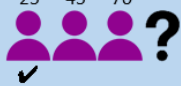
The main part of the questionnaire is the choice experiment. In the introduction we explain to the respondents that we would like to know more about their considerations regarding participating in an additional activity in their neighbourhood or village. We ask them to imagine being asked for an additional activity in their village. Following this, we show them a choice set of three activities and the opt-out alternative 'none of these activities'. The respondents are instructed to choose the option they prefer most, given their current situation. It is explicitly mentioned that it does not matter whether the respondent currently participates or not. During the pilot phase it appeared that including 8 attributes in the experiment made the choice task too complex for respondents. Therefore we decided to split the experiment into two experiments, which are presented consecutively. The attributes in the two experiments are largely overlapping. In each experiment we present 4 choice sets to the respondents. The activities differ with respect to 6 attributes in each experiment. An overview of the attributes and attribute levels used in the two choice experiments is presented in Table 1. An example of a choice set as shown in the online questionnaire is included in Figure 1.

Table 1. Attributes and attribute levels used in the choice experiment

Attributes	Exp. 1	Exp. 2	Attribute levels
Type of activity	X	X	Volunteering for an association
			Social activity
			Improving residential environment
			Formal participation
Role	X	X	Organisational tasks
			Practical tasks
			Participant
Time per month	X	X	1 hour
			4 hours
			8 hours
			32 hours
Period	X	X	One-off
			3 months
			6 months
			1 year
			2 years
Financial compensation	X		0
			€3 p/h for you
			€7 p/h for you
			€3 p/h for the activity
			€7 p/h for the activity
Contact person municipality	X		Yes
			No
Who asks you		X	Friend

			Acquaintance
			Somebody you do not know
			General call
Who else participates		X	Composition of the group: - Whether you know a person - Age - Gender

Figure 1. Example of a choice set in the online questionnaire

Soort activiteit	Inzetten voor vereniging	Sociale activiteit	Verbeteren leefomgeving	
Rol	Bestuurder, organisator	Praktische taken	Deelnemer	
Tijd	32 uur per maand	4 uur per maand	8 uur per maand	
Periode	6 maanden	2 jaar	Eenmalig	Geen van deze activiteiten
Wie vraagt	Algemene oproep	Vriend	Onbekende	
Wie doet er mee	25 45 70 	25 45 45 70 	25 70 70 70 	
	☐	☐	☐	☐

MODELLING APPROACH

Our choice models will be estimated in a latent class random utility framework (see Greene and Hensher, 2003). These models allow for a flexible estimation of observed and unobserved heterogeneity in preferences and can be used as inputs for the behavioral rules for the individuals in agent-based models. The model assumes a flexible discrete distribution of preferences. Each individual is assigned to a ‘class’ (g) with probability. The class-membership model will include demographic variables such as income, education, age and gender, implying that class membership varies systematically with observed characteristics of individuals. *Conditional* on class membership a random perceived value function will be estimated that includes the variables of the experiment:

$$V_{jng} = \beta_g X_{jn} + \epsilon_{jng}$$

The vector X_{jn} refers to the vector of characteristics for alternative j for individual n as discussed above. The vector β_g indicates how sensitive the respondents are to the attributes and will be estimated from the data. The social attribute ‘team members’ (see figure 1) is endogenous for real world choices but exogenously varied in our experiment and depends on the structure of the network, as well as the person’s place in the network. The random part ϵ_{jng} includes unobservable characteristics of the alternatives that impact choice. The estimation results can be used to determine the participation choice probabilities for the activities for a given individual with certain characteristics and to predict how these choice probabilities change when attributes and the composition of team members changes.

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