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## STATES AS MOLDERS OF INFORMAL RELATIONS?

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# STATES AS MOLDERS OF INFORMAL RELATIONS?

A multilevel test on social participation in 20 Western countries

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**ABSTRACT:** This article studies the impact of a range of state institutions on citizens' contacts with family and close friends in 20 countries. Recent studies have shown large country level differences in social participation. We aim to explain these differences from an actor centered institutionalist perspective. We present two lines of reasoning. According to the first, a high level of social security *crowds out* social participation, as intimate networks are no longer needed as an economic safety net. The second line of reasoning proposes that corruption or a lack of civil rights drive citizens to seek *refuge* in their secure intimate contacts. In a comparative, multi-level design we focus on participation in the nuclear family, in the extended family, and with the best friend. We test the two lines of reasoning simultaneously on ISSP 2001 data. We find that states matter. State institutions are an important determinant of social participation. Our findings mainly confirm the second line of reasoning, whereas the crowding out thesis is only supported for contact with the extended family. Moreover, we find that the contextual effects are not similar across social groups: the poor are more strongly affected by the institutional design than the rich.

**Key words:** social networks; welfare state; new institutionalism; ISSP; family; friends

## 1. Introduction

Public wisdom holds that it is hard, if not impossible, for states to control family life. Nevertheless, in recent years scholars have emphasized the 'critical facilitating role' (Szreter 2002) of state institutions on social participation, the set of informal contacts with family and friends that take

place in the intimate sphere. Yet, despite this theoretical debate, empirical research remains remarkably scarce and inconclusive. This cross-national study aims to fill this empirical gap.

Large country level differences in various forms of participation have been found by several authors since Almond and Verba (1963), but remain largely unexplained empirically. Several authors have criticized the cultural explanations offered by Putnam (1993) and Fukuyama (1995), who overlooked the important role of the state in facilitating social participation, e.g., Levi (1996), Tarrow (1996), Onyx and Bullen (2001), and Szreter (2002). The latter authors propose the state and its institutions to be important determinants of social participation: the state provides the formal institutional framework within which social participation takes place.

Yet, little empirical research has been done to actually test the impact of state institutions on various forms of participation (Parboteeah *et al.* 2004; Freitag 2006). This is most apparent for social participation. As a field of interest social participation has remained separate from other forms of participation until recently (Stolle and Hooghe 2005). Consequently, no more than a few comparative studies (e.g., Scheepers *et al.* 2002; Van Oorschot and Arts 2005; Kääriäinen and Lehtonen 2006; Pichler and Wallace 2007) have looked at the association between state institutions and social participation. Moreover, these studies focused on a single state institution, rather than a range of them. In this contribution, we address the following questions:

- a. To what extent do the levels of social participation differ cross-nationally?
- b. To what extent do state institutions determine the different levels of social participation, taking individual characteristics into account?
- c. To what extent is the impact of state institutions on social participation similar across social categories?

In search for answers to our research questions we take up an actor centered institutionalist approach (Scharpf 1997). This approach focuses on institutions as ‘enduring structural constraints on human behaviour’ (Cortell and Petersen 1999). We specifically look at the constraints induced by national level state institutions: general state policies and standard government practices. State institutions are inert (Krasner 1984): they hardly change, and if they do it is mostly through small, incremental steps (Cortell and Petersen 1999). We focus on the rather stable institutions of western, liberal-democratic countries (Harty 2005). As it takes time for a (stable) institutional setting to affect citizens’ behaviour,

we should consider a short time lag between the measurements of state institutions and social participation.

This study is primarily concerned with the interplay between two levels of analysis: the individual and the state. Although other levels (i.e., the groups our respondents are part of, or the neighbourhood/municipality they live in) might be important for social participation as well (cf. Tilly 2005), we can not include them: the cross-national survey does not include information at intermediate levels. Moreover, we have no *a-priori* reason to assume that the exclusion of meso-levels from our analysis will affect our study on the impact of state institutions on social participation.

## 2. Social participation

The extent to which individuals contact, meet, visit or invite close family or their best friend is what we label social participation. We thus focus on the frequency of interaction between individuals, also referred to as 'associational solidarity' (Mangen *et al.* 1988). Social participation is assumed to have profound intended and non-intended consequences. Instrumentally, informal networks are used as a source of information on jobs (Moerbeek 2001), and to contact professionals outside of the traditional channels (Mars and Altman 1992). Informal social contacts may provide people with access to a larger social network (Halpern 2005), as well as skills (Bowlby 1988), physical and mental health (Putnam 2000). Through social participation, people are socialized into wider society, either with pro-civic (Fukuyama 1995) or anti-civic (Banfield 1958) attitudes.

In contrast to other forms of participation, social participation is based on the informal and primordial ties of family (kinship) and the local community (clanship). Kin and clan are 'supposed to be a strong social community based on shared norms and values and consisting of members with a natural function to help and care for each other' (Komter and Vollebergh 2002). Friendship ties are chosen, family ties are ascribed. Yet, ascribed or not, to some degree individuals can choose to what extent they involve themselves in these ties. We claim that this element of choice is framed by state institutions. In the next sections we provide two mechanisms to explain such a relationship.

## 3. Hypotheses: *crowding out thesis*

First, we propose the crowding out thesis, which can be traced back to the writings of Tocqueville and Nisbet. In this approach, family and

friendship bonds function as a safeguard against economic hardship. Those who are aware of their (financial) dependency may invest in their family ties to construct an economic safety net (Flap 1999). However, states may also take up the function of an economic safety net by offering social security against unemployment, disability and disease, and by offering state pensions – not as charity, but as an individual right. Thereby, the state takes over the supportive role of family and friends (Habermas 1990 [1961]): people have less material incentives to participate in informal networks. In short: ‘Social expenditures and comprehensive social programs ‘crowd out’ informal caring relations and social networks, as well as familial, communal and occupational systems of self-help and reciprocity’ (Van Oorschot and Arts 2005). Vice versa, states that lack such extensive social security systems force their citizens to rely on their families and friends and hence stimulate social participation.

Evidence for the crowding out thesis is mixed at best (cf. Scheepers *et al.* 2002; Van Oorschot and Arts 2005; Kääriäinen and Lehtonen 2006). Yet, the differential findings might be reconciled when we consider that the crowding out effect may not be equally strong for different social groups. We expect that the inverse relationship between social security and social participation is stronger for people with a low income than for people with a high income, as the latter have less economic incentives to participate socially to begin with. People with a low income depend more on social security than people with a high income. Therefore, the crowding out effect of social security should be more apparent among the economically weak – i.e., the poor.

In line with the first approach, we test the following hypotheses on the effects of state institutions:

H1a *The lower the level of social security in a welfare state, the higher the level of social participation.*

H1b *The effect of social security on social participation is stronger for economically weak people (i.e., the poor and social security recipients) than for economically strong people (i.e., the rich and the employed).*

#### **4. Hypotheses: safe refuge thesis**

Whereas the crowding out thesis focuses on incentives to social participation, the safe refuge thesis focuses on constraints. It claims that opportunity structures matter: citizens will opt to meet their needs through that particular mode of participation which most likely maximizes the benefits. When citizens are less likely to reach their goals in the public

sphere, they are more likely to participate in the intimate sphere (Hochschild 1997). Studies on (post-)communist societies showed these public modes of participation are less viable alternatives, when the state is repressive (Bian 1997; Völker and Flap 2001; Howard 2003a). In these repressive states, citizens ‘compartmentalized their lives into small social networks made up of people whom they know well’ (Uslaner and Badescu 2003), i.e., the nuclear family and a few close friends (Mars and Altman 1992; Gibson 2003; Howard 2003b). These networks functioned ‘as a refuge, a shelter, from the meddling by the government and party into their private lives’ (Völker and Flap 2001). Participation in the public sphere was no serious alternative due to uncertainty about the intentions of strangers. Therefore, in communist societies, public distrust about a repressive state drove citizens away from the public sphere and into private networks (Howard 2003a,b).

These propositions on the repressive state and an untrustworthy public sphere may not only apply to communist countries, but also to democratic regimes (Eliasoph 1998; Howard 2003b). Democratic societies, too, differ in the extent to which they guard the safety of the public sphere. Repressive states limit the freedom and impartiality of the public sphere, undermine civic autonomy, breed insecurity about public networks (Rose 1994), and promote participation in the intimate sphere (Bian 1997) through several characteristics.

First, civic autonomy in the public sphere is affected by the extent to which civil rights are enforced. Civil rights – like the freedom of speech and the freedom of association – are a warrant for undisturbed access to the public sphere. When states choose not to enforce these civil rights or to limit them in times of war or civic disturbance, we expect citizens to revert to social participation. Countries where civil rights are hardly enforced will have a higher level of social participation than countries where civil rights are strongly enforced.

The inverse effect of civil rights enforcement on social participation may be stronger for people with a low income than for people with a high income: financial means provide individuals more autonomy to manoeuvre, who therefore have less need for state guarantees.

*H2a The weaker a state effectuates civil rights, the higher the level of social participation.*

*H2b The effect of civil rights effectuation on social participation is stronger for the economically weak compared to the economically strong.*

Secondly, corruption in the state bureaucracy is considered to have similar effects on civic autonomy in the public sphere. Objectively,

corruption hampers the freedom and impartiality of the public sphere, as it gives public officials strong but unchecked discretionary powers (Transparency International 2000). Subjectively, people who perceive of the public sphere as corrupt tend to have less institutional trust and opt to participate in localized, informal networks instead of in the broader public sphere (Eliasoph 1998). In highly corrupt states citizens mainly depend on family ties to contact officials and find entrance to state arrangements (Mars and Altman 1992). Hence, our third hypothesis claims:

H3 *The more corrupt a state is, the higher the level of social participation.*

Finally, in liberal democracies civic freedom and autonomy are protected by the state. However, in young democracies social and political trust have to be gained: civil society has to emerge and political life needs to stabilize before the public sphere functions as well and – more importantly – is *perceived* to be as safe as in longstanding democracies where citizens are better socialized in the system (Rose 1994; Howard 2003b). After a democratic transition (i.e., abrupt institutional change), it takes time and institutional stability for the (perception of a) safe public sphere to arise. Therefore, we expect social participation to be high in new democracies compared to longstanding democracies:

H4 *The younger the democratic regime of a country, the higher the level of social participation.*

## 5. Contextual controls: economic development and religion

Besides the aforementioned state institutions, we will include economic development in our study as a control factor because previous empirical studies have found positive correlations with social participation (Knack and Keefer 1997; Curtis *et al.* 2001; Van Oorschot and Arts 2005). We also include religiosity at the state level. We expect that in more religious countries, there is a culture of more intense participation not only in civic associations (Ruiter and De Graaf 2006), but also with family members and friends. Therefore, we expect social participation to be higher in more devout countries.

## 6. Data and measurement

The research questions and hypotheses in this article are formulated on two levels: the individual level (level 1) and the state level (level 2). The individual level data are derived from the International Social Survey



Programme (ISSP) module on Social Networks (2001), collected between 2000 and 2003. The data set contains questions on participation with several specific members of the family as well as on friends.

Twenty-nine countries participated in the 2001 ISSP module. We left out the few non-western countries, as the validity of the assumption of institutional stability is questionable for these countries (Harty 2005). We also excluded France due to a low response rate (14 percent), and Cyprus and Japan due to lack of contextual data. In the end, we are left with 20 societies (for an overview of countries and country level variables, see <http://www.ru.nl/mt/tm/molders>), containing a total of 27,537 respondents of 18 years and older: Australia, Austria, Canada, Czech Republic, Denmark, Finland, Great Britain, Hungary, Israel, Italy, Latvia, The Netherlands, New Zealand, Norway, Poland, Russia, Slovenia, Spain, Switzerland and the United States. All countries are democratic, and – with the exception of Israel – dominantly Christian. The average response rate is 60 percent. The sampling procedure differs per country (see the ISSP report at <http://www.za.uni-koeln.de/data/en/issp/codebooks/issp2001app.pdf>).

### 6.1. Dependent variables

We distinguish three forms of social participation: respondents' frequency of meetings with (i) nuclear family, (ii) best friend, and (iii) extended family. We therefore constructed three variables, based on two- and three-stage questions of the ISSP 2001.

The measure of participation with the nuclear family is constructed by combining the respondent's scores on four measures: meetings with his or her father, mother, adult son or daughter (whom the respondent has the most contact with), and sibling (whom the respondent has the most contact with). We summed these scores and divided them by the respondent's number of alters in the nuclear family. For our study, the average score is a better measure than the sum score. Of course, a respondent who visits both her mother and her father weekly has more informal contact than one who has only one parent which she visits weekly. This difference would be reflected in the sum score, and not in the average score. However, the difference between the two respondents is created by family composition (the number of living relatives). This heavily distorts the sum score. As we do not aim to explain the number of living relatives, but the degree of informal contact *given* the availability of relatives, we will use the average score. It measures the intensity of participation with the nuclear family, given the number of alters.

The measure of participation with the extended family is constructed by combining respondents' scores on contact with his/her uncle or aunt, and with his/her cousin (both ranging from never (0) to more than twice in the last four weeks (2)). This measure is constructed differently from the previous one, as we do not know the number of alters in the extended family. We could only exclude those who have no uncles/aunts or cousins from the analysis.

The measure of participation with one's best friend is more readily available in the data set. We only have information on contact with the single best friend, and not on contact with the whole network of friends. Yet, as we are explicitly concerned with close ties, our measure of contact with the single best friend is more suitable than information about a larger network of friends.

We coded – for each of these variables separately – respondents who stated not to have any (living) contact of that kind as missing and left them out of the analysis. The measures of participation with one's best friend and with the nuclear family (or more precisely: with each of the four underlying measures) range from 0 (no meetings) to 7 (he/she lives in the same household as I do).<sup>1</sup> The third measure – participation with the extended family – ranges from 0 (no contact in the last four weeks) to 4 (more than twice contact with uncle or aunt, as well as more than twice with cousin in the last four weeks).

For the measure of participation with the nuclear family we introduced two types of controls to take effects of family composition into account. The first control concerns the question which nuclear family ties are available to the respondent. As people are more likely to meet their mother or child than father or brother, it matters whether they have a (living) father, mother, sibling and/or child when we explain participation with the nuclear family. The second control concerns the selection bias in the measurement of social participation with one's son/daughter and with

1. The categories of this 8-point scale are: 0 (never), 1 (less than several times a year), 2 (several times a year), 3 (at least once a month), 4 (at least once a week), 5 (at least several times a week), 6 (daily), 7 (lives in same household). We conceive of the latter category as the most intensive value of social participation. For friendship ties the prevalence is rather small: less than 2 percent lives in the same household as his/her best friend. Yet for the nuclear family living together is more common: 6 percent lives with a sibling, 10 percent with a father, 14 percent with a mother, and 15 percent with an adult child. One might plausibly argue that category 7 has a qualitatively different meaning from the other categories. Therefore, we estimated our parameters twice: including and excluding the respondents in category 7. The outcomes of the analyses were nearly identical for the level 2 and interaction effects we are most interested in, both for contact with the nuclear family and contact with one's best friend. Including the respondents living with their contacts thus does not affect our findings.

one's brother/sister. These variables measure participation with the child or sibling *whom the respondent has the most contact with*. The number of siblings and the number of adult children is likely to affect social participation, positively (respondents who can select from a larger pool are more likely to have a relative with whom they share interests) or negatively (they have to divide their time over more close kin).

## 6.2. Independent variables

As we use a multilevel design to test hypotheses, we distinguish two types of independent variables: contextual (country) level determinants and individual level determinants. As our causal claim proposes that state institutions come first, we collected institutional data from the year *before* the individual level data were collected for the ISSP.

## 6.3. Contextual (country) level determinants

The crowding out hypothesis is implicitly concerned with the *level of social security*, rather than the type of welfare state regimes (Esping-Andersen 1990). We therefore use the IMF-statistics on social security and health care expenditure in 2000 from the annual Government Finance Statistics and standardized the expenditures as a percentage of the GDP. These self-reported IMF-statistics are internationally comparable because of the strict definitions the IMF applies. The IMF-measure correlates strongly ( $> 0.9$ ) with OECD and ILO data. For some countries, data on social security expenditures were not available for the appropriate year. In these cases we used data from the next year because social security rates hardly changed between adjacent years.

The measure of *length of democratic rule*, based on Inglehart (1997), indicates how long a country has been democratic without disruption (with 1920 as starting point). The maximum age of a democracy in 2000 is 80.

Our measure of *civil rights enforcement* of the year 2000 is based on the annual index from the Freedom House. Freedom House defines civil liberties 'to include the freedoms to develop views, institutions, and personal autonomy apart from the state'. Countries are ranked on a scale that ranges from 1 (no civil liberties) to 7 (high level of enforced civil liberties). Although the index has been criticized as subjective (Bollen and Paxton 2000), it is the best cross-national measure at our disposal.

By absence of a cross-country measure of corruption, we recoded a measure of *perceived* corruption, namely the Corruption Perception Index (CPI) 2000, issued by Transparency International. The CPI is based on

multiple surveys in which experts are asked to rate countries' level of corruption. The measure of corruption ranges from 0 (no corruption) to 10 (highly corrupt).

At the contextual level we control for *economic development* in 2000, measured as GDP/capita PPP which is considered a relevant contextual determinant of citizen participation (Halman 2003). We used the measure provided by the World Bank, which is strongly correlated ( $> 0.99$ ) to kindred measures of the OECD and the IMF. As a measure of national *level of religiosity* we computed per country the average level of attendance of religious services based on the ISSP 2001 data set (cf. Ruiter and De Graaf 2006).<sup>2,3</sup>

#### 6.4. Individual level determinants

In our analysis we need to control for individual level explanations of social participation, as country level differences in social participation may be the product of composition effects. We include the following determinants: income, work status, age, sex, education, length of residence in a community, marital status, religious denomination and church attendance. Theoretically, income and work status are central to our study. Income is measured by the actual amount of money available to the household. As we could not construct a single cross-national

2. External measures on religiosity were all lacking theoretically or methodologically for our purposes. Official data report church membership registration, but say little about de facto involvement. Formal registration of church membership would selectively overemphasize the level of religiosity, for instance for Scandinavian countries where most citizens are registered as member, but relatively few participate. Actual church involvement is cross-nationally measured in the World Churches Handbook (Brierly 1997). Yet, that study only focuses on Christian religions and leaves out all others. Other measures of religiosity (religious pluralism, historically dominant denomination, percentage nominal Catholics, percentage nominal Protestants) suffered from theoretical and/or methodological flaws too. Moreover, neither added to the variance already explained by the institutional factors.
3. The distribution of the scores follow a similar pattern on several measures (see <http://www.ru.nl/mt/tm/molders>). Generally, longstanding, western democracies score high on civil rights enforcement, absence of corruption, years of democratic rule and economic development. East-European countries score lowest, and South-European countries fall somewhat in the middle. Moreover, the average levels of social participation follow a similar pattern (see footnote 7). To some extent, we thus explain the differences between these clusters of countries. Nevertheless, as we prove multicollinearity is not much of a problem in this study (see footnote 8), the question remains which of these aforementioned factors explains social participation – and the differences between these clusters – best.

measure of individual level income, we had to standardize income within each country for reasons of comparability. Consequently, our measure of individual level income cannot explain country level differences in levels of participation, as the average is zero for all countries. This is partially solved by the inclusion of economic development as a contextual determinant. Work status distinguishes between those who do paid work and those who do not: the unemployed, students, house-men and wives, pensioned, and the disabled.<sup>4</sup>

## 7. Analyses

Both our hypotheses and our data are hierarchically structured: individuals (level 1) are nested in different countries (level 2) while social participation is proposed to depend on both individual level and contextual level predictors. To deal with this nested structure, we employ multi-level analysis (hierarchical modelling) (Snijders and Bosker 1999) using the ML-WIN 2.0 package (Goldstein 1995).

The scores on our dependent variables are quasi-metric, with 43 categories for the nuclear family, 8 for one's best friend, and 5 for the extended family. Formally, ordered logit multi-level regression is the most appropriate method, although linear multi-level regression analysis is most common in this field of research. We tried to apply ordered logit multi-level regression, but in several packages our complicated models would not converge. Therefore, we tested indirectly whether linear regression would come to the same conclusions as ordered logit regression. Building on a low intraclass correlation (see below), we temporarily ignored the hierarchical structure of the data to apply ordinal regression via PLUM (PoLytomous Universal Models). We found that the results of the PLUM-models are similar to those of linear multi-level analysis, although of course the standard errors of the country level determinants were

4. For both theoretical and methodological reasons, we did not control for other modes of participation, neither at the individual level (i.e., voluntary association membership; participation on the internet) or at the country level (i.e., organizational density; internet availability; women's employment). Firstly, the causal relationship between social participation and these alternative modes of participation is unclear: would involvement in these alternative networks be a cause or a consequence of (high or low) participation with family and friends. Secondly, we have no a-priori reason to assume inclusion of these alternative networks would affect the relationship between state institutions and social participation, except as an intermediary factor. As the use of control variables is mainly to account for spurious relationship, and not to (over)control for intermediary explanations, we left the alternative networks out of the analysis.

uncorrected. This proved we could safely apply linear multi-level analysis to our study, which we did. We used the Maximum likelihood procedure as our estimation method, and the  $-2 \text{ LogLikelihood}$  ( $-2LL$ ) to estimate the model fit. To compare between models, we calculated the difference between the  $-2LL$ , which is Chi-square distributed.<sup>5,6</sup>

Before we estimated the effects of level 1 and level 2 predictors, we estimated a baseline model to establish whether there is significant variance at the individual ( $\sigma^2 e_{0ij}$ ) and at the contextual level ( $\sigma^2 u_{0j}$ ).<sup>7</sup> Respondents with one or more missing values on any of the variables were left out of the analyses; subsequent models are all based on the same set of respondents. Next we calculated the ratio of the contextual level variance to the total variance ( $\sigma^2 e_{0ij} + \sigma^2 u_{0j}$ ), the intraclass correlation. For all modes of social participation, the variance turned out to be significant at both levels.

Secondly, we took composition effects into account by including individual level determinants. In a third step we included all contextual characteristics to measure the net impact of the state institutions on social participation as described in hypotheses 1a, 2a, 3, and 4. Finally we tested whether this impact varied with income and work status (hypotheses 1b and 2b) in random slope models. Results of all models can be found in Table 1.

## 8. Results

In both the baseline and the composition model, the individual and country level variances are significant ( $\alpha = 5$  percent). To find out whether multilevel analysis is not merely appropriate but also sensible, intraclass-correlations were computed. In the baseline models, the percentage of variance at the contextual level amounts to 14 percent

5. We tested the assumption of homoscedasticity, according to which the variance of error is distributed equally across categories of  $x$ -variables. Although the model fit improved when we allowed for heteroscedasticity, the parameters remained substantially the same: neither in the effect size, nor in the standard errors did we come to find any substantial difference.
6. We checked the assumption of normality by analysis of the residuals. We considered the statistical tests of normality to be inappropriate here: for the individual level variables we found significant, but irrelevant violations of the normality assumption, whereas the test turned out insignificant for our country level variables due to the low number of countries. Therefore, we focused on the normality plots. These showed no harmful violation of the assumption of normality.
7. Descriptive analyses showed vast differences between countries, in line with the study by Pichler and Wallace (2007). Social participation is about twice as high in Southern Europe compared to the longstanding, western democracies. The former communist countries of Central and Eastern Europe fall somewhat in-between. See <http://www.ru.nl/mt/tm/molders>.

**TABLE 1. Variance analyses**

	<i>Model 1</i> <i>Nuclear family</i>	<i>Model 2</i> <i>Closest friend</i>	<i>Model 3</i> <i>Uncle, aunt, cousin</i>
Average	4.0	3.9	1.1
N	14242	15512	13080
<i>Baseline model</i>			
$\sigma^2_{u_{0j}}$	0.332	0.182	0.085
$\sigma^2_{e_{0ij}}$	2.003	1.856	1.509
Intraclasscor.	0.141	0.089	0.053
– 2LL	50400.13	53698.63	42569.96
<i>Composition model</i>			
$\sigma^2_{u_{0j}}$	0.205	0.128	0.058
$\sigma^2_{e_{0ij}}$	1.627	1.776	1.392
intraclasscor.	0.112	0.067	0.040
– 2LL	47432.93	53007.07	41515.74
Dev – 2LL	2967.20	691.56	1054.22
Df	25	19	19
<i>Full model (model A)</i>			
$\sigma^2_{u_{0j}}$	0.078	0.027	0.019
$\sigma^2_{e_{0ij}}$	1.627	1.776	1.392
Intraclasscor.	0.046	0.015	0.013
– 2LL	47414.10	52977.30	41495.43
Dev – 2LL	18.83	29.77	20.31
Df	6	6	6
<i>Full model including cross-level interactions (model B)</i>			
$\sigma^2_{u_{0j}}$	0.078	0.028	0.020
$\sigma^2_{e_{0ij}}$	1.622	1.775	1.389
intraclasscor.	0.046	0.016	0.014
– 2LL	47391.86	52971.51	41466.29
Dev – 2LL	22.24	5.79	29.14
Df	9	9	9

(nuclear family), 9 percent (friends) and 5 percent (extended family). These are quite considerable percentages given that the dependent variable is measured at the individual level, and most variance is to be expected at the individual level (Steenbergen and Jones 2002). In other words, there are quite large country level differences in the average level social capital. The question is, whether these remain significant when we control for all individual level variables. The second model takes these composition effects into account. As a consequence the variance at the contextual level drops with 20–25 percent. Moreover, the intraclass correlations are hardly affected. These results indicate that it is worthwhile to investigate the impact of state institutions on social participation using a multilevel model.

The third row in Table 1 shows that indeed the contextual determinants significantly contribute to the explanation of social participation as the decline of the  $-2\log\text{likelihood}$  ( $-2LL$ ) between models is significant. In all 'full models' variance at the contextual level is strongly reduced (by 60–80 percent) by the inclusion of direct effects of contextual determinants. Inclusion of interaction effects improves the models even further for the nuclear and extended family. Table 2 gives insight in the direct effects of the individual and contextual level determinants.<sup>8</sup>

As we are most interested in the direct effects of the state institutional determinants, we did not display the individual level control factors in Table 2. The effects of these control factors can be found in the full models on our webpage: <http://www.ru.nl/mt/tm/molders>.

**TABLE 2. Multilevel results: direct effects**

	<i>Model 1a</i> <i>Nuclear family</i>	<i>Model 2a</i> <i>Closest friend</i>	<i>Model 3a</i> <i>Uncle, aunt, cousin</i>
<i>Individual level predictors</i>			
Has a father	– <b>0.30 (0.03)</b>		
Has a mother	<b>0.13 (0.03)</b>		
Has a sibling	– <b>0.64 (0.04)</b>		
Number of siblings	0.01 (0.01)		
Has a child	<b>0.59 (0.04)</b>		
Number of children	<b>0.04 (0.01)</b>		
<i>State level predictors</i>			
Social security expenditure	0.48 (1.72)	– 0.05 (1.04)	– <b>1.90 (0.90)</b>
Years of democracy	– <b>0.01 (0.01)</b>	– <b>0.01 (0.00)</b>	– <b>0.01 (0.00)</b>
Civil rights	– <b>0.22 (0.12)</b>	– <b>0.23 (0.07)</b>	– 0.09 (0.06)
Corruption	– 0.03 (0.08)	– 0.02 (0.05)	– 0.03 (0.04)
GDP/capita PPP (* 1000)	0.03 (0.02)	<b>0.03 (0.01)</b>	<b>0.04 (0.01)</b>
Average church attendance	0.01 (0.00)	– 0.00 (0.00)	0.00 (0.00)
$\sigma^2_{u_{0j}}$	0.078	0.027	0.019
$\sigma^2_{e_{0ij}}$	1.627	1.776	1.392
Intraclasscor.	0.046	0.015	0.013

Bold figures represent significant effects at the 0.05-level, one-tailed.

We controlled for income, work status, age, sex, education, length of residence in a community, marital status, religious denomination and church attendance. The full models, including effects of the control factors, are available on our webpage: <http://www.ru.nl/mt/tm/molders>.

8. These results were tested for their stability by perturbation analyses (based on Belsley 1991). High correlations among the level 2 determinants and the relatively small sample of countries might lead to incorrect conclusions due to multicollinearity. In perturbation analyses we introduced – within theoretically reasonable margins – random errors on our level 2 determinants and retested our models one hundred times. We conclude that there was no harmful multicollinearity in our models (see <http://www.ru.nl/mt/tm/molders>).



We find no evidence for a general crowding out effect of primordial ties. Social security expenditure does not have a significant effect on participation with the nuclear family, nor on participation with friends. This refutes H1a. However, we find that social security expenditure is inversely related to participation with the extended family, which supports H1a. In absolute terms the effect is far from small: 5 percent GDP additional social security accounts for a decline of the country average participation with the extended family to 1 point on our 5-point scale.

Hypothesis H2a is supported by the results in Table 2: the more a state effectuates civil rights, the lower the level of participation with the nuclear family and with one's best friend. We find no support at all for hypothesis H3: the effect of corruption is insignificant in all models.

The age of a democracy is inversely related to all three modes of social participation which supports hypothesis H4: longstanding democracies have a lower level of social participation than newly developed democracies. Yet, although significant, the effects are effectively rather small in absolute terms: having 80 years of democracy (the maximum) accounts for an average decrease of less than three-quarters of a point on our social participation scales.

As for our control factors at the contextual level, economic development has a positive effect on social participation: countries with a higher GDP/capita PPP have a higher level of social participation. This effect is, however, not significant for participation in the nuclear family. The average level of religiosity does not have an effect on social participation.

In short, we only find support for the crowding out thesis with regard to the extended family. The refuge thesis is supported for civil rights enforcement and democracy, but not for corruption. Next, the question comes up whether these effects are equally strong for different social groups. We tested this with cross-level interaction effects in random slope models, where the individual level effects of income and work status are allowed to vary across countries.

Table 3 shows significant cross-level interaction effects for participation with the nuclear and with the extended family. The interaction of social security and income is in line with hypothesis H1b, which stated that the impact of social security is stronger for people with a low income than for people with a high income. The negative effect of social security on participation with the extended family is strong and significant for the 5 percent of the people with the lowest income (i.e.,  $-4.15$ ),<sup>9</sup> but nearly

9. The net effect of social security on participation with the extended family is calculated as follows:  $-2.11$  (the main effect of social security)  $- 1.65$  (the Z-score of income for the poorest 5 percent)  $* 1.24$  (the interaction effect of social security and income)  $= -4.15$ . Calculations for the other total effects follow the same procedure.

**TABLE 3. Multilevel results: cross-level interaction effects**

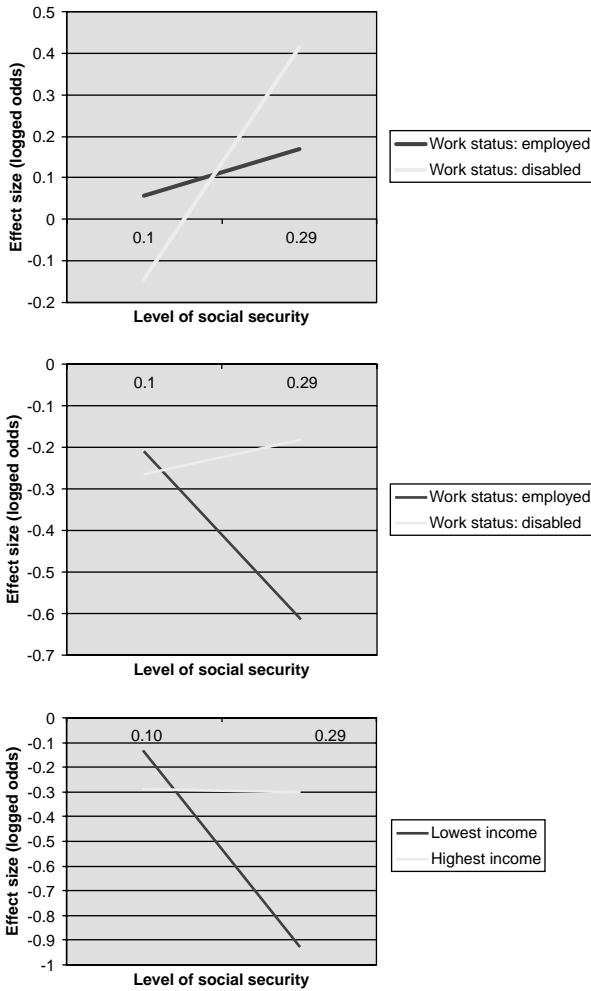
	<i>Model 1b</i> <i>Nuclear family</i>	<i>Model 2b</i> <i>Closest friend</i>	<i>Model 3b</i> <i>Uncle, aunt, cousin</i>
<b>Individual level predictors</b>			
Income	0.11 (0.12)	– <b>0.09 (0.08)</b>	<b>0.17 (0.09)</b>
<i>Work status (employed)</i>			
Unemployed	<b>0.42 (0.20)</b>	<b>0.12 (0.05)</b>	<b>0.10 (0.05)</b>
Student	– 0.16 (0.32)	<b>0.11 (0.06)</b>	<b>0.20 (0.06)</b>
Houseman/-Wife	0.00 (0.19)	0.02 (0.04)	– 0.06 (0.04)
Pensioned	0.12 (0.12)	<b>0.06 (0.04)</b>	<b>0.15 (0.04)</b>
Disabled	– 0.44 (0.27)	– 0.08 (0.07)	– 0.31 (0.30)
Has a father	– <b>0.29 (0.03)</b>	–	–
Has a mother	<b>0.13 (0.03)</b>	–	–
Has a sibling	– <b>0.64 (0.04)</b>	–	–
Number of siblings	0.01 (0.01)	–	–
Has a child	<b>0.61 (0.04)</b>	–	–
Number of children	<b>0.03 (0.01)</b>	–	–
<b>State level predictors</b>			
Social security expenditure	0.58 (1.73)	– 0.16 (1.06)	– <b>2.11 (0.91)</b>
Years of democracy	– <b>0.01 (0.01)</b>	– <b>0.01 (0.00)</b>	– <b>0.01 (0.00)</b>
Civil rights	– <b>0.22 (0.12)</b>	– <b>0.19 (0.07)</b>	– 0.08 (0.06)
Corruption	– 0.03 (0.08)	– 0.00 (0.04)	– 0.02 (0.04)
GDP/capita PPP (* 1000)	0.03 (0.02)	<b>0.04 (0.01)</b>	<b>0.04 (0.01)</b>
Average church attendance	0.01 (0.00)	– 0.00 (0.00)	0.00 (0.00)
<b>Cross-level interactions</b>			
Soc.sec. * Income	0.61 (0.46)	0.12 (0.30)	<b>1.24 (0.32)</b>
Soc.sec. * Work status (employed)			
* Unemployed	– 1.45 (0.96)	– 0.02 (1.04)	– 0.17 (0.91)
* Student	1.14 (1.39)	1.19 (1.44)	– 1.69 (1.29)
* Houseman/-Wife	0.02 (0.88)	– 0.13 (0.91)	0.60 (0.86)
* Pensioned	– 0.16 (0.54)	– 0.48 (0.57)	1.04 (0.72)
* Disabled	<b>2.37 (1.26)</b>	1.54 (1.41)	<b>2.55 (1.38)</b>
Civil rights * Income	– 0.02 (0.02)	0.00 (0.01)	– 0.01 (0.02)
$\sigma^2_{u_{0j}}$	0.078	0.028	0.020
$\sigma^2_{e_{0ij}}$	1.623	1.775	1.389
Intraclasscor.	0.046	0.016	0.014

Bold figures represent significant effects at the 0.05-level, one-tailed.

We controlled for age, sex, education, length of residence in a community, marital status, religious denomination and church attendance. The full models, including effects of the control factors, are available on our webpage: <http://www.ru.nl/mt/tm/molders>.

absent for the 5 percent wealthiest people (i.e., –0.66 and non-significant) – see Figure 1c. For the nuclear family and friends, however, we do not find support for hypothesis H1b.

We do not find any evidence that the effect of social security expenditure is more strongly negative for recipients of social security



**Figure 1.** Cross-level interaction effect: social security, work status and contact with the nuclear family.

than for people with a job (hypothesis H1b). All interaction effects are non-significant, save for one group. For disabled people, we find a positive effect of social security expenditure. Rather than crowding out their need for family, we must conclude that social security apparently enables disabled people to keep in contact with their nuclear and extended family – possibly through health care provision and public transport. These two significant interaction effects are graphically displayed in Figure 1a,b.

Hypothesis H2b is not supported. The cross-level interaction effects of civil rights enforcement and income are not significant – at least not after controlling for other interaction effects.

The significant cross-level interaction effects are not only relevant for research on state institutions, but also for those who study the individual level association between income/work status and family relations. From a different, but equally valid, point of view, they imply that the strength and even the direction of the individual level association between income/work status and social participation is conditioned by the institutional environment.

## 9. Summary and discussion

This study started out from theoretical explorations that claimed a large role for states as a determinant of informal relations. To test these claims, we formulated three research questions in this article. The first question was related to the differences in social participation across countries. There are significant and rather large differences across countries, as was signalled by the significant country level variance and the high intraclass correlations. To answer the second and third question, we estimated the influence of several state institutions on social participation simultaneously and tested whether this impact was equal across social categories. We demonstrated that state institutions indeed have a significant impact on social participation, even when we control for other individual level and other contextual determinants. In short: States matter. But they matter more for the poor than for the rich.

The crowding out thesis was only supported for a specific group (i.e., the poor) and for specific ties (i.e., the extended family). Contact with the extended family relies at least partly on economic necessity: in less extensive social security states, poor people build an economic safety net by intensifying contacts with the extended family.<sup>10</sup> Despite dominant thought (cf. Scheepers *et al.* 2002; Kääriäinen and Lehtonen 2006), social security does not unilaterally crowd out functions of the family, but only those of the extended family. This implies that breaking down social security programs may not stimulate participation with the nuclear family and with friends. Apparently, participation within one's nuclear family or with one's best friend is not motivated by economic needs. Rather, these

10. This might explain why Scheepers, Te Grotenhuis and Gelissen (2002) find a negative effect of welfare state expenditure on social participation among the elderly, while Van Oorschot and Arts (2005) find no effect among the general population.

ties are more exclusively motivated by needs that are overlooked by the crowding out thesis – emotional support, recreation, or simply routine.

This study offers more support for the safe refuge thesis. The age of the democracy and civil rights enforcement both affect social participation. In longstanding democracies that enforce civil rights, citizens do not need to revert to their secure informal ties, but feel more confident to obtain their instrumental and expressive goals in the public sphere. On the other hand, a country's level of corruption does not have a significant impact on social participation when we control for other contextual determinants.

An important limitation of this study remains the issue of causality. We dealt with this issue in two ways: we focused on countries with relatively stable state institutions, and derived our measures for these state institutions from the years preceding the ISSP survey. Nevertheless, the issue of causality can not be solved definitively in this cross-sectional study.

Perhaps, this chicken-and-the-egg discussion might be too limited. We should not think in terms of single lines of causality, but in terms of spirals of causality (Rothstein 1998). The crowding out thesis, for instance, was originally formulated as a spiral of causality (cf. de Tocqueville 2000 [1835–1840]; Nisbet 1962 [1953]): ever more extensive states and ever more atomized citizens only served to stimulate each other. On the one hand, extensive states atomized its citizenry, but on the other hand, this atomized citizenry needed to depend on the state and offered little counterweight to the expanding state. Reasoning in terms of these spirals makes the discussion of causality obsolete. Nevertheless, the conclusions of this study would still stand: states matter in family life.

## References

- Almond, G. A. and Verba, S. (1963) *The Civic Culture: Political Attitudes and Democracy in Five Nations*, Princeton, NJ: Princeton University Press.
- Banfield, E. (1958) *The Moral Basis of a Backward Society*, Glencoe: The Free Press.
- Belsley, D. A. (1991) *Conditioning Diagnostics, Collinearity and Weak Data in Regression*, New York: John Wiley & Sons.
- Bian, Y. (1997) 'Bringing strong ties back in: Indirect ties, network bridges and job searches in China', *American Sociological Review* 62: 366–85.
- Bollen, K. and Paxton, P. (2000) 'Subjective measures of liberal democracy', *Comparative Political Studies* 33: 58–86.

- Bowlby, J. (1988) *A Secure Base: Clinical Applications of Reflexive Sociology*, Chicago, IL: University of Chicago Press.
- Brierly, P. (ed.) (1997) *World Churches Handbook*, London: Christian Research.
- Cortell, A. P. and Petersen, S. (1999) 'Altered states: Explaining domestic institutional change', *British Journal of Political Science* 9: 177–203.
- Curtis, J., Baer, D. and Grabb, E. (2001) 'Nations of joiners: Explaining voluntary association membership in democratic societies', *American Sociological Review* 66: 783–805.
- Eliasoph, N. (1998) *Avoiding Politics: How Americans Produce Apathy in Everyday Life*, Cambridge: Cambridge University Press.
- Esping-Andersen, G. (1990) *Three Worlds of Welfare Capitalism*, Cambridge: Polity.
- Flap, H. (1999) 'Creation and returns of social capital, a new approach', *La Revue Tocqueville* 20: 5–26.
- Freitag, M. (2006) 'Bowling the state back in: Political institutions and the creation of social capital', *European Journal of Political Research* 45: 123–52.
- Fukuyama, F. (1995) *Trust: The Social Virtues and the Creation of Prosperity*, New York: The Free Press.
- Gibson, J. L. (2003) 'Social networks, civil society, and the prospects for consolidating Russia's democratic transition', in G. Badescu and E. M. Uslaner (eds), *Social Capital and the Transition to Democracy*, London: Routledge, pp. 61–80.
- Goldstein, H. (1995) *Multilevel Statistical Models*, London: Edward Arnold.
- Habermas, J. (1990 [1961]) *Strukturwandel der Öffentlichkeit*, Frankfurt am Main: Suhrkamp.
- Halman, L. (2003) 'Volunteering, democracy, and democratic attitudes', in P. Dekker and L. Halman (eds), *The Values of Volunteering*, New York: Kluwer Publishers, pp. 179–98.
- Halpern, D. (2005) *Social Capital*, Malden, MA: Polity Press.
- Harty, S. (2005) 'Theorizing institutional change', in A. Lecours (ed.), *New Institutionalism: Theory and Analysis*, Toronto: University of Toronto Press, pp. 51–79.
- Hochschild, A. R. (1997) *The Time Bind: When Work Becomes Home and Home Becomes Work*, New York: Metropolitan Books.
- Howard, M. M. (2003a) *The Weakness of Civil Society in Post-communist Europe*, Cambridge: Cambridge University Press.
- Howard, M. M. (2003b) 'Why post-communist citizens do not join voluntary associations', in G. Badescu and E. M. Uslaner (eds), *Social Capital and the Transition to Democracy*, London: Routledge, pp. 165–83.

- Inglehart, R. (1997) *Modernization and Postmodernization: Cultural, Economic and Political Change in 43 Societies*, Princeton, NJ: Princeton University Press.
- Kääriäinen, J. and Lehtonen, H. (2006) 'The variety of social capital in welfare state regimes – a comparative study of 21 countries', *European Societies* 8: 27–57.
- Knack, S. and Keefer, P. (1997) 'Does social capital have an economic payoff? A cross-country investigation', *The Quarterly Journal of Economics* 112: 1251–88.
- Komter, A. and Vollebergh, W. (2002) 'Solidarity in Dutch families. Family ties under strain?', *Journal of Family Issues* 23: 171–88.
- Krasner, S. D. (1984) 'Approaches to the state: alternative conceptions and historical dynamics', *Comparative Politics* 16: 233–46.
- Levi, M. (1996) 'Social and unsocial capital: A review essay of Robert Putnam's Making democracy work', *Politics and Society* 24: 45–55.
- Mangen, D. J., Bengtson, V. L. and Land, P. H. (eds) (1988) *Measurement of Intergenerational Relations*, Newbury Park: Sage.
- Mars, G. and Altman, Y. (1992) 'A case of a factory in Uzbekistan; Its second economy activity and comparison with a similar case in Soviet Georgia', *Central Asian Survey* 11: 101–12.
- Moerbeek, H. (2001) *Friends and Foes in the Occupational Career*, Utrecht: ICS.
- Nisbet, R. A. (1962 [1953]) *Community and Power* [orig: The quest for community], New York: Oxford University Press.
- Onyx, J. and Bullen, P. (2001) 'The different faces of social capital in NSW Australia', in P. Dekker and E. Uslaner (eds), *Social Capital and Participation in Everyday Life*, London/New York: Routledge, pp. 45–58.
- Parboteeah, K. P., Cullen, J. B. and Lim, L. (2004) 'Formal volunteering: A cross-national test', *Journal of World Business* 39: 431–42.
- Pichler, F. and Wallace, C. (2007) 'Patterns of formal and informal social capital in Europe', *European Sociological Review* 23: 423–35.
- Putnam, R. (1993) *Making Democracy Work: Civic Traditions in Modern Italy*, Princeton, NJ: Princeton University Press.
- Putnam, R. (2000) *Bowling Alone: The Collapse and Revival of American Community*, New York: Simon and Schuster.
- Rose, R. (1994) 'Post-communist democracies and the problem of trust', *Journal of Democracy* 5: 18–30.
- Rothstein, B. (1998) *Just Institutions Matter: The Moral and Political Logic of the Universal Welfare State*, Cambridge: Cambridge University Press.

- Ruiter, S. and De Graaf, N. D. (2006) 'National context, religiosity and volunteering: Results from 53 countries', *American Sociological Review* 71: 191–210.
- Scharpf, F. W. (1997) *Games Real Actors Play. Actor-centered Institutionalism in Policy Research*, Boulder, CO: Westview.
- Scheepers, P., Te Grotenhuis, M. and Gelissen, J. (2002) 'Welfare states and dimensions of social capital: Cross-national comparisons in European countries', *European Societies* 4: 185–207.
- Snijders, T. and Bosker, S. (1999) *Multilevel Analysis: An Introduction to Basic and Advanced Multilevel Modelling*, London: Sage.
- Steenbergen, M. R. and Jones, B. S. (2002) 'Modeling multilevel data structures', *American Journal of Political Science* 46: 694–713.
- Stolle, D. and Hooghe, M. (2005) 'Inaccurate, exceptional, one-sided or irrelevant: The debate about the alleged decline of social capital and civic engagement in Western societies', *British Journal of Political Science* 35: 149–68.
- Szreter, S. (2002) 'The state of social capital: Bringing back in power, politics, and history', *Theory and Society* 31: 573–620.
- Tarrow, S. (1996) 'Making social science work across space and time: A critical reflection on Robert Putnam's *Making democracy work*', *American Political Science Review* 90: 389–97.
- Tilly, Ch. (2005) *Identities, Boundaries and Social Ties*, Boulder, CO: Paradigm Publishers.
- Tocqueville de, A. (2000 [1835–1840]) *Democracy in America*, Chicago: University of Chicago Press.
- Uslaner, E. M. and Badescu, G. (2003) 'Legacies and conflicts: The challenges to social capital in the democratic transition', in G. Badescu and E. M. Uslaner (eds), *Social Capital and the Transition to Democracy*, London: Routledge, pp. 219–32.
- Van Oorschot, W. and Arts, W. (2005) 'The social capital of European welfare states: The crowding out hypothesis revisited', *Journal of European Social Policy* 15: 5–26.
- Völker, B. and Flap, H. (2001) 'Weak ties as a liability: The case of East Germany', *Rationality and Society* 13: 397–428.

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