

The institutional embeddedness of social capital: a multi-level investigation across 24 European countries

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This study contributes to earlier studies aimed at the question of whether the welfare state crowds out social capital or not by examining to what extent the welfare state affects the value of social capital. This article investigates the effects of three sources of social capital on occupational prestige and tests whether these effects are moderated by welfare state effort in terms of social spending. Multi-level analyses based on European Social Survey (ESS) 2002/03 and International Monetary Fund (IMF) data, including 39,299 people from 24 European countries, provides evidence that welfare state effort decreases the value of social capital.

Introduction

The literature on social capital shows that people with many social ties in a favourable network configuration can use them to mobilise resources and to get ahead in society (Sandefur and Laumann, 1998). This effect on achievement was emphasised by the founders of social capital theory (Bourdieu, 1983; Coleman, 1988) and was confirmed in numerous empirical studies (Portes, 1998; Lin, 2001). Even though these effects appear to be strong, it has been argued by researchers in the field of welfare state studies that the level of social capital, which is part of the *informal* solidarity between citizens, may decrease due to the welfare state, a form of institutionalised and *formal* solidarity funded through taxes that applies formal rules to redistribute resources in society (Gelissen, 2000; van Oorschot and Arts, 2005). This criticism is based on the argument that in most countries welfare state provisions cover a portion of the risks that people face and the support they need from others to sustain an acceptable standard of living. Before welfare states came into existence, people found support through their informal social relations, or social capital as resources accessed through networks are called nowadays (Portes, 1998). When governments institutionalised and professionalised some aspects of these relationships between people, the continuity and quality of support was increased, but it crowded out or substituted informal social capital (Janowitz, 1976; Abrams and Schmitz, 1984; Offe, 1984; Roberts, 1984; Glazer, 1988; Putnam, 2000). This view is not uncontested and a second, opposing, view emphasises that formally institutionalised provisions may provide structures in which informal social capital can flourish and therefore a crowding-in effect may have taken place (Chappell and Blandford, 1991; Hanley et al, 1991; Künemund and Rein, 1999; Rothstein, 2001; van Oorschot and Arts, 2005; van Oorschot et al, 2005). According to this argument, the formal welfare state provisions create trust that also facilitates informal social capital to come about and to be sustained. Whichever of the two positions holds empirically, they both give

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rise to the idea that the welfare state affects the process through which individuals achieve a certain position in society.

Earlier research investigating these opposing views focused on the effects of formal solidarity provided through the welfare state on informal social capital. A common feature of these studies is that formal solidarity is the explanatory variable and informal solidarity is the response variable. Using longitudinal or international comparative data allowed researchers to infer answers to the question of whether formal solidarity has negative or positive effects on the level of social capital in a country. Although an important issue by itself, they overlooked one other important aspect, namely *the instrumental value* of social capital to achieve certain goals. The question we ask in this article is whether the instrumental value of social capital is affected by the level of formal solidarity provided through the welfare state. Instead of focusing on the direct effect of formal solidarity on informal social capital, our analysis investigates the way in which welfare states moderate the relationship between social capital and achievement. Even if formal solidarity decreases or increases informal social capital, it may well be that social capital is still an important means for achievement under conditions of increased formal solidarity. If the generic importance of social capital is declining because of the welfare state, there should no longer be a relationship between social capital and achievement or this relationship may even be negative.

In this article we investigate whether a specific kind of achievement, namely occupational prestige, is related to two basic kinds of social capital that are identified in earlier studies: (1) the resources that people have access to due to the education level of their parents and (2) the strength of the tie that they have with friends, relatives and colleagues, using information from 39,299 people living in 24 European countries. In the empirical analyses, welfare state data at the national level – available through the International Monetary Fund (IMF) (IMF, 2001) – are combined with individual-level data from the ESS 2002/03. Multi-level modelling is applied to deal with the nested structure of the data.

This article is structured as follows. The next section introduces earlier research concerning the relationship between social capital and achievement. We then discuss how the effects of social capital on achievement may be moderated by the welfare state. Based on the theoretical consideration we formulate two competing hypotheses, which are then tested. The article closes with a discussion of the empirical results.

Social capital and achievement

Through their personal and social resources people achieve a certain position in society, such as the job they hold, the income they earn and the status they attain (Lin, 1999a). The theoretical and empirical basis for the effects of personal resources on status attainment is found in the work of Blau and Duncan (1967), concluding that such achievements are a matter of parental status, education and prior occupational status. According to social capital theorists, social contacts and resources thereby obtained help people to achieve a better position, in addition to personal resources such as experience and education. The social capital model of status attainment integrates people's use of personal and social resources (Lin, 1999a), and better explains why social capital on top of personal and human capital increases a person's

achievement (Lin, 1999b). In the present study we apply a somewhat stripped-down version of Lin's full model and investigate how people's access to network resources and ties with others explain a person's achieved status, besides human capital in the sense of education level and several other individual characteristics.

Numerous studies have investigated the relationship between social capital and achievement (for an overview of these studies and their outcomes, see Lin, 1999a). These studies confirm that social capital positively affects people's status. After a number of empirical investigations in the US, similar studies have been carried out in countries such as Canada, East Germany, West Germany, Italy, the Netherlands, Singapore and Taiwan. By comparing the outcomes it is possible to draw some conclusions about differences between the countries studied. Nevertheless, little attention has been paid to international comparisons of the relationship between social capital and achievement, and how this relationship is influenced by institutional settings that vary across countries. As is suggested by institutional theorists, such national differences at the macro level are likely to influence micro-level outcomes (Nee and Ingram, 1998). The welfare state comprises one of the institutional differences between countries that may affect people's achievement through the opportunities it may offer for individuals to get ahead in society (Esping-Andersen, 1990). Considering welfare states as institutionalised solidarity and social capital as informal solidarity among people, the question is how these two are linked. More specifically, the question we would like to answer is whether the welfare state affects the instrumental value of social capital and whether welfare states increase or decrease the status that people attain through their social capital.

The moderating role of the welfare state

The welfare state consists of formal arrangements aimed at compensating people's misfortune. These formal provisions are a means of formal support, organised through government intervention and funded with tax money (Swank, 1998). Government intervention with regard to income insurance and supporting services is often justified because of efficiency and distributional reasons. First, markets for voluntary income insurance may fail for reasons such as advantageous selection, adverse selection, myopia and free-rider behaviour. Second, public arrangements enable risk sharing across generations, which are problematic in private arrangements. And third, public arrangements provide possibilities for human capital investments. Public arrangements can therefore be more efficient since they can solve these three problems associated with private arrangements. Moreover, with respect to distributional effects, public arrangements are justified with reference to genuine altruism or enlightened self-interest, and promotion of social peace (Lindbeck, 2006).

A welfare state affects status differences between people in a country. Welfare state provisions can increase the equality of opportunities within a country and make people less dependent on their position in the labour market. On the one hand, welfare state arrangements compensate people for risks such as unemployment and sickness, while on the other hand, these arrangements actively affect people's possibilities by offering access to schooling and the existence of labour market policies that may help people to find a job. If the government provides these possibilities

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and individuals contribute through the tax system, they might be less motivated to further assist others, hence the level of informal solidarity will be lower. Nevertheless, if people are becoming more equal because of the presence of extensive welfare state provisions, which are collective goods, it may also be that the importance of social capital increases. If everyone is equal, which would be the case in an ideal type of welfare state that reduces all differences between people in a country, people may try to find alternative ways to reach a higher position in society. Using their social capital would be a likely means to achieve these ends. If that is the case, social capital is more valuable in welfare states.

Hypothesis

Whereas other research examining the effects of the formal welfare state on informal solidarity focuses on the question of whether the welfare state increases or decreases people's social capital, we investigate whether the outcomes of social capital in terms of achievement are different depending on the extensiveness of the welfare state. Therefore the question is whether the relationship between social capital and achievement, which is found in earlier studies, is *moderated* by the welfare state.

As outlined above, this moderating effect can influence the relationship between social capital and achievement in two different directions, depending on which of the two mechanisms dominates. If the welfare state crowds out informal solidarity, it means that the more extensive the welfare state is, the less valuable social capital becomes. Therefore, the first hypothesis reads as follows: *'Welfare state effort negatively moderates the relationship between social capital and achievement because the welfare state decreases the value of social capital'* (**Hypothesis 1**).

Nevertheless, as welfare states increase the equality of opportunities, it can be argued in contrast that the value of social capital to achieve beyond given opportunities also increase. As opportunities become more equal, more people can increase their human capital because they have access to education. Therefore, education as such serves less as a means to distinguish oneself from others, and the resources that can be accessed through contacts with others may become more important. This process is reflected in the second, competing, hypothesis: *'Welfare state effort positively moderates the relationship between social capital and achievement because the welfare state increases the value of social capital'* (**Hypothesis 2**).

Data measurement and method

Data

The data used in this study were taken from different sources that are gathered at both the individual and the national level. The information at the individual level, measuring people's achievement, social capital and other personal characteristics, are derived from the ESS that was carried out in 2002/03. The ESS aims at investigating the attitudes, beliefs and behaviours of individuals from 30 countries. These individual-level data are combined with data on welfare state effort at the national level, which is provided through the IMF *Government finance statistics manual, 2001*

(IMF, 2001). Combining these two datasets yielded a dataset containing information about 39,299 respondents from 24 European countries.

Measures

Dependent variable: occupational status

Societies are stratified social structures consisting of status hierarchies along which individuals can achieve a certain position. *Occupational prestige* is an indicator of the achievement of a person. In this article, occupational prestige is measured using Treiman's Standard International Occupational Prestige Scale (SIOPS) (Treiman, 1977). The SIOPS scores are based on the International Standard Classification of Occupations (ISCO) of the International Labour Organization, in which occupations are classified according to skill level and skill specialisation, and allows for international comparisons of occupational status. The scores are derived by matching information from national and local prestige studies conducted in 60 countries to the ISCO groups and rescaling these scores to a common metric. The SIOPS scale has been used in several international studies of prestige (Krymkoski, 1991). Ganzeboom and Treiman (1996) provide a detailed account of how the SIOPS scale is constructed using the ISCO classification. In the ESS, occupations of respondents are measured with the ISCO classification and this information is transformed into SIOPS scores using the procedure of Ganzeboom and Treiman (1996).

Independent variable: social capital

Two dimensions of social capital – networks resources and tie strength – are measured with three different indicators. First, network resources depend on parental status (Lin, 1999a) and this kind of social capital is measured with the education level of the father and the mother of the respondent. The scale on which these two variables are measured ranges from 1 (primary or first stage of basic education) to 6 (second stage of tertiary education). Besides the social resources that people can access through their parents, social capital is measured with the extent to which respondents have relations with people that may assist them achieving a higher position in society. Respondents are asked to indicate how often they socially meet with friends, relatives or colleagues on a scale ranging from 1 (never) to 7 (several times per week).

Moderating variable: welfare state effort

At the country level, welfare state effort is measured with the total social spending of a country as a percentage of gross domestic product (GDP). This measure is in accordance with other studies examining the effects of welfare state on informal solidarity and social capital (see, for instance, van Oorschot and Arts, 2005).

Control variables

Other variables may also affect people's occupational prestige. At the individual level, the following control variables that are available in the ESS are added to the multi-level regression model: age, gender (0=male; 1=female), marital status (0=not married; 1=married), education level (1=primary or first stage of basic education; 6=second stage of tertiary education), membership of a political party (0=no; 1=yes) and belonging to a religious denomination (0=no; 1=yes).

Method

The dataset contains information at the individual level (level 1) and the country level (level 2). Because of the hierarchical data structure it is not possible to use Ordinary Least Square (OLS) regression analysis (see, for instance, DiPrete and Forristal, 1994). Multi-level modelling is suitable to investigate such datasets. In its general form, the multi-level model has a fixed part (the linear function of the independent variables) and a random part (in this particular case the unexplained variation at the individual level and the unexplained variation between the countries; Snijders, 2003). The analyses aim at investigating whether or not welfare state effort moderates the relationship between social capital and occupational prestige. Such a moderating effect assumes that this relationship varies between countries. Therefore, we estimate a full random intercept and slopes model, allowing for complex level 2 variation (Rasbash et al, 2005).

The effects of welfare state effort on the relationship between social capital and occupational prestige are examined using a hierarchical linear model that consists of one dependent variable (achievement measured with occupational prestige), three independent variables at level 1 (education level of father and mother and social meeting with friends), six level 1 control variables (age, gender, marital status, education level, member of a political party and belonging to a religious denomination) and one level 2 independent variable (welfare state effort). The level 1 variables are group mean centred (except the dummy variables and the dependent variable) and the level 2 variable is grand mean centred (see Kreft et al, 1995, for an overview of centring decisions in multi-level analysis); the most basic form of centring is used because there are no theoretical reasons to do otherwise.

The multi-level analysis is performed in four steps. First, an empty model is computed (Model 0). The empty model is an unconditional model without independent variables and serves as a baseline to evaluate the other models. The individual-level control variables and the national-level variable welfare state effort are added in Model 1. In Models 2a, 3a and 4a the variables measuring the three sources of social capital are added to the model. The final three models (Model 2b, 3b and 4b) also include the cross-level interaction effects between the social capital variables and welfare state effort. These models investigate whether welfare state effort moderates the relationship between social capital and occupational prestige.

The parameters in these models are estimated by the maximum likelihood method (Goldstein, 2003) and the regression coefficients are tested by Wald tests (Snijders, 2003). The deviance between the models is computed to investigate whether the fit of the different models improves in comparison to the other models using full

information maximum likelihood (Snijders and Bosker, 1999). The models are compared in the following manner. Model 1 is compared to Model 0, Models 2a, 3a and 4a are compared to Model 1 and finally we compare Model 2b with Model 2a, Model 3b with Model 3a, and Model 4b with Model 4a.

Results

Descriptive results

Table 1 shows the number of respondents, the mean level of occupational prestige and the level of welfare state effort per country. The mean level of occupational prestige is particularly high in the Netherlands ($m=42.34$) and Switzerland ($m=42.27$) and low in Greece ($m=33.64$) and Turkey ($m=35.09$). Welfare state effort turns out to be high in Sweden (34.70) and Denmark (33.00), and Estonia (17.10) and Turkey (7.10) are the countries with the lowest level of welfare state effort in this sample.

Table 1: Number of respondents and descriptive statistics by country

Country	<i>n</i>	Occupational prestige	Welfare state effort
Austria	1,903	39.97	26.20
Belgium	1,510	41.22	27.10
Czech Republic	2,472	38.14	18.80
Denmark	1,409	41.84	33.00
Estonia	1,777	39.61	17.10
Finland	1,884	39.85	32.30
France	1,620	40.90	30.10
Germany	2,504	41.95	29.70
Greece	1,925	33.64	22.70
Hungary	1,290	39.11	22.30
Iceland	528	38.90	18.60
Ireland	2,041	39.43	17.80
Luxembourg	1,341	40.36	25.20
Netherlands	1,722	42.34	26.70
Norway	1,685	41.08	28.50
Poland	1,460	37.42	25.10
Portugal	1,602	36.25	19.00
Slovakia	1,242	38.06	20.90
Spain	1,161	37.98	22.00
Sweden	1,824	39.51	34.70
Switzerland	1,998	42.27	25.90
Turkey	868	35.09	7.10
UK	1,730	38.88	22.80
Ukraine	1,803	38.46	19.80
Total	39,299	39.40	24.41

Sources: IMF (2001); ESS (2002/03)

Table 2 shows the correlation coefficients among the individual-level variables and shows that occupational prestige is positively related to father's education ($r=0.276$; $p<0.01$), mother's education ($r=0.227$; $p<0.01$) and contact with friends, relatives and colleagues ($r=0.042$; $p<0.10$), indicating that parental education is a stronger predictor of a person's achieved position than the other kind of social capital. Furthermore, according to Table 2, occupational prestige is higher among married people, people with a higher education level and those who are a member of a political party. The level of occupational prestige is lower among older people, woman and people belonging to a religious denomination.

Multi-level analysis

The results from the multi-level analysis are summarised in Table 3. The intraclass correlation coefficient of the empty model (Model 0) indicates that 2.277% of the variation in occupational prestige occurs between countries. Addition of the control variables and welfare state effort (Model 1) improves the model significantly (deviance=62,630.40; $p<0.01$). The relationships between the control variables and occupational prestige that were found in the bivariate analyses remain the same in the multivariate analyses. Moreover, these results do not change after the social capital variables are added to the model. Besides that from Model 1 it is read that welfare state effort at the national level is positively related to the occupational prestige of individuals ($b=0.050$; $p<0.05$); the countries with a higher level of social spending are also the ones where people hold occupations with a slightly higher prestige. Models 2a, 3a and 4a investigate the effects of the different kinds of social capital separately. For each of the models it holds that adding these variables yields significant improvements of the model. Table 3 shows that all three aspects of social capital are positively related to achievement: education level of the father ($b=0.816$; $p<0.01$), education level of the mother ($b=0.697$; $p<0.01$) and socially meeting with friends, relatives and colleagues ($b=0.149$; $p<0.01$).

To investigate the moderating effect of welfare state effort, separate models (Models 2b, 3b and 4b) are calculated that include the cross-level interaction between welfare state effort and the three kinds of social capital. With regard to the education level of the father and the mother of respondents, the analyses show similar outcomes. Adding the interaction term to the models improves the fit (deviance=9.50; $p<0.01$ for Model 2b and deviance=14.10; $p<0.01$ for Model 3b). The main effects of welfare state effort and parental education level remain the same and there is a negative interaction effect of welfare state and education level; the relationship between occupational prestige and education level of the parents is weaker as the welfare state is more extensive, indicating that welfare state effort does moderate the relationship between parental education and occupational prestige. These two interaction effects are presented in the graphs of Figure 1 (education level of the father) and Figure 2 (education level of the mother). The two figures show the difference between countries where welfare state effort is higher and those spending less on social welfare. In both figures the slope showing the relationship between education level of one of the parents with occupational prestige is less steep in countries with a higher level of social spending. People with higher-educated fathers and mothers living in a country with an extensive welfare state do benefit

Table 2: Correlations at the individual level

	Mean	SD ^a	1	2	3	4	5	6	7	8	9
1. Occupational prestige	39.40	14.08									
2. Education level of father	2.16	1.54	0.276 **								
3. Education level of mother	1.89	1.40	0.227 **	0.717 **							
4. Socially meeting	4.89	1.61	0.042 **	0.125 **	0.145 **						
5. Age	1957.81	18.44	-0.010 †	-0.292 **	-0.372 **	-0.253 **					
6. Gender (1=female)	0.54	0.50	0.050 **	0.034 **	0.033 **	-0.039 **	0.040 **				
7. Marital status (1=married)	0.53	0.50	0.075 **	-0.126 **	-0.157 **	-0.160 **	0.225 **	0.048 **			
8. Education level	2.83	1.51	0.550 **	0.458 **	0.433 **	0.059 **	0.164 **	-0.043 **	0.034 **		
9. Political party (1=yes)	0.05	0.23	0.051 **	-0.009 †	-0.022 **	0.022 **	0.076 **	-0.065 **	0.059 **	0.033 **	
10. Religious denomination (1=yes)	0.37	0.48	-0.060 **	-0.208 **	-0.237 **	-0.046 **	0.148 **	0.082 **	0.129 **	-0.152 **	0.042 **

Notes:

^a Standard deviation

n=39,299 respondents

† p<0.10; * p<0.05; ** p<0.01

Sources: IMF (2001); ESS (2002/03)

Table 3: Results of multilevel regression analysis of occupational prestige (SIOPS)

Model	1	2a	3a	4a	2b	3b	4b
Country level (Level 2)							
Welfare state effort (1)	0.050* (0.020)	0.053* (0.020)	0.051* (0.020)	0.049* (0.020)	0.053* (0.020)	0.051* (0.021)	0.049* (0.020)
Individual level (Level 1)							
Social capital							
Education level of father (2)		0.816** (0.054)			0.834** (0.054)		
Education level of mother (3)			0.697** (0.061)			0.719** (0.062)	
Socially meeting with friends, relatives and colleagues (4)				0.149** (0.043)			0.143** (0.044)
Cross-level interaction effects							
(1) with (2)					-0.026** (0.008)		
(1) with (3)						-0.036** (0.009)	
(1) with (4)							-0.006 (0.007)

Model	1	2a	3a	4a	2b	3b	4b
Control variables							
Age	-0.095** (0.004)	-0.108** (0.004)	-0.112** (0.004)	-0.098** (0.004)	-0.109** (0.004)	-0.113** (0.004)	-0.098** (0.004)
Gender (1=female)	0.872** (0.125)	0.811** (0.129)	0.871** (0.128)	0.854** (0.125)	0.818** (0.129)	0.875** (0.128)	0.851** (0.125)
Marital status (1=married)	1.150** (0.128)	1.126** (0.133)	1.178** (0.132)	1.195** (0.129)	1.126** (0.133)	1.162** (0.132)	1.191** (0.129)
Educational level	5.832** (0.046)	5.597** (0.052)	5.676** (0.050)	5.824** (0.046)	5.589** (0.052)	5.665** (0.050)	5.824** (0.046)
Member of a political party (1=yes)	1.209** (0.265)	1.150** (0.272)	1.144** (0.271)	1.185** (0.265)	1.137** (0.272)	1.123** (0.271)	1.184** (0.265)
Belong to a religious denomination (1=yes)	-0.706** (0.141)	-0.627** (0.146)	-0.622** (0.145)	-0.714** (0.141)	-0.629** (0.146)	-0.624** (0.145)	-0.713** (0.141)
Intercept	1.235* (0.595)	1.236* (0.606)	1.337* (0.604)	1.185* (0.593)	1.223* (0.606)	1.310* (0.604)	1.182* (0.593)
-2loglikelihood	255,812.50	237,398.10	243,624.70	255,023.20	237,388.60	243,610.60	255,022.50
Deviance	62,630.40**	18,414.40**	12,187.80**	789.30**	9.50**	14.10**	0.70
Intraclass correlation	2.654	2.761	2.724	2.670	2.770	2.737	2.664

Notes:

n=39,299 respondents in 24 countries

Unstandardised regression coefficients are reported; standard errors are in parentheses.

Empty model: -2loglikelihood=318,442.900; intercept=0.000 (0.070); intraclass correlation=2.277.

† p<0.10; * p<0.05; ** p<0.01

Sources: IMF (2001); ESS (2002/03)

in terms of occupational prestige but they do significantly less so than those living in countries where social spending is low.

Figure 1: Interaction effect of educational level of father and welfare state effort on occupational prestige (SIOPS)

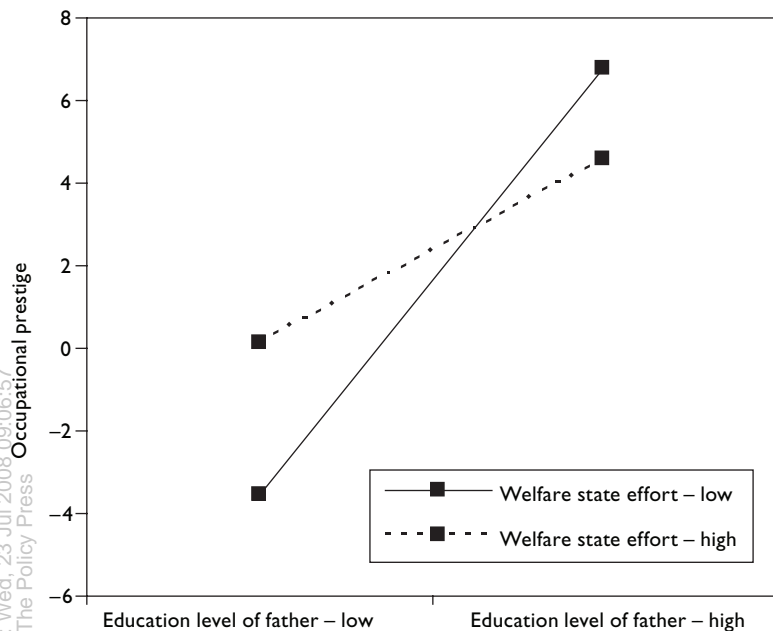
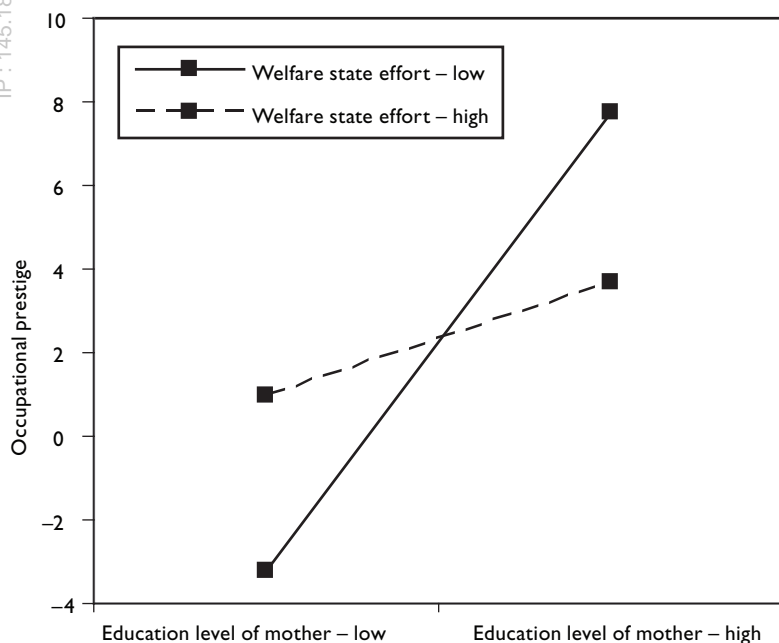


Figure 2: Interaction effect of educational level of mother and welfare state effort on occupational prestige (SIOPS)



Furthermore, welfare state effort does not moderate the relationship between occupational prestige and social capital in terms of socially meeting with friends, relatives and colleagues. Adding this variable to the model does not improve its fit and the interaction term is close to zero. This means that the effect of having contact with these people does not differ across countries. The positive relationship between this kind of social capital and occupational prestige holds for all countries, independent of their welfare state effort.

Based on the results presented in this article, we draw the following conclusions. First of all, the findings corroborate the results from earlier studies: social capital, access to network resources through the education level of the parents as well as a stronger tie with people that may be of help are positively related to achievement in the sense of occupational prestige. In addition to this, it can be concluded that the welfare state does moderate the relationship between social capital and achievement, in the sense that the value of social capital is lower in more extensive welfare states. Therefore, Hypothesis 1 is supported and Hypothesis 2 should be rejected.

Conclusion

The welfare state has been criticised for various reasons, for instance because it leads to inefficiency or creates welfare state-dependent citizens. More recently, concerns have been raised about the negative effect of the welfare state on people's social capital, the informal solidarity through which they can achieve certain goals. There may be several reasons to expect this. For instance, people will be less motivated to assist others if the government offers provisions to help people, and people's informal solidarity will be lower since they already assist others through the tax system that finances formal solidarity. Because of this, it is argued that the level of social capital decreases as the welfare state becomes more extensive. So far, research efforts have focused on the effects of formal solidarity on social capital. These studies investigate whether there is a direct relation between formal solidarity and social capital, which is a worthwhile endeavour. The present study contributes to this line of research by focusing on the instrumental value of social capital and investigating whether the welfare state decreases its importance. From the empirical analyses carried out in this article it follows that welfare states do indeed decrease the value of social capital.

This finding has implications for discussions regarding the relationship between the welfare state and social capital. For some, there may be a reason for concern about the welfare state crowding out informal support and social capital. In fact, a seemingly paradoxical situation results from it, especially for those who support the welfare state and are convinced that its effects on the functioning of society are positive in general. It is likely that these are also the people who would like to see that the welfare state provides the groundwork for informal solidarity to flourish. At the same time, their support for the welfare state is based partly on exactly the same reason as we found in our analyses, namely that the welfare state does distribute opportunities more equally among citizens. What follows from this is that discussions about the relationship between the welfare state and social capital would gain from this insight because it emphasises that people should be more precise about what they mean with crowding in and crowding out. Whereas crowding out is usually considered bad and crowding in is referred to as a good thing, reality seems to be

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less black and white. In that respect it should be noted that the welfare state taking over some of the informal solidarity does not necessarily have to be a bad thing, at least not from the perspective of equal opportunities. Also, it should be kept in mind that crowding out can take place but that this does not have to hold for all kinds of social capital or informal solidarity. The domains in which crowding out occurs and those where crowding in prevails should be explored in future investigations.

The research presented in this article could be extended in two directions. First, a more inclusive measure of networks could be included in future studies, capturing, among others, a measure of network closure (Coleman's, 1988, 'closure'). As already mentioned, such investigations should also look more closely at the parents to distinguish between different mechanisms that can be at work and to better explain the relationship between social networks and achievement. As cross-national datasets providing this information are lacking, digging deeper remains difficult, and will depend on new ways of data collection. Second, future research efforts could focus on different indicators of welfare states, for instance those based on Esping-Andersen's (1990) classification of welfare state regimes according to their level of decommodification. With regard to this direction the data required are currently lacking for many of the countries studied in this article but as soon as they are available it will be possible to update the analyses in this direction as well.

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