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## Putting a Face to Institutions: Professionals and Generalized Trust

**Abstract:** The central role institutions play in the development of generalized trust is well established by previous research. Yet, the role of the professionals employed in these institutions has received considerably less attention. This paper explores whether confidence in welfare state professionals is important in maintaining a high level of generalized trust in the Norwegian context. It is hypothesized that professionals may influence people's generalized trust both via their formal role as gatekeepers and in informal settings as part of social networks. The results are based on novel cross-sectional data, and indicate that confidence in welfare professionals is correlated with generalized trust, while the presence of welfare professionals in a social network is not significantly associated with generalized trust. The relationship between confidence in professionals and generalized trust indicates that alongside good institutions, good service provision is important in maintaining a high level of generalized trust.

**Keywords:** Professions, generalized trust, welfare institutions, social networks

This paper investigates whether trust in the competence of welfare state professionals has broader societal implications by studying its' association to generalized trust<sup>1</sup>. Generalized trust is associated with numerous desirable outcomes. In general, a high degree of generalized trust facilitates collaboration and reduces transaction costs. At the macro level, a vast body of literature has reported that high levels of generalized trust are beneficial for democratic institutions, economic growth, and democratic stability (Bjørnskov, 2012; Knack & Keefer, 1997; Putnam, Leonardi, & Nanetti, 1994; Putnam, 1995a, 1995b; Putnam, 2001; Zak & Knack, 2001). Alongside the beneficial economic consequences of trust, a lack of trust in expert systems may erode ontological trust, thus affecting the foundations of society (Giddens, 1991, p.136-41). The quality of institutions, such as health care, education, or the police, is bound to the competence and moral integrity of the professionals employed in these institutions. A trusted police force and an impartial judicial system are considered necessary to maintain a high level of social trust (Rothstein & Stolle, 2008). Interactions with police are not routine for most citizens in developed countries. By contrast, interactions with health care professionals, educators, or social workers occur more often. The provision of these services is universal in Norway, and these

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**Received:**  
21 Dec 2018

**Accepted:**  
02 Jul 2019

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<sup>1</sup> The terms: *generalized trust*, and *social trust* are used interchangeably.

professionals safeguard both the interests of the clients and those of the state. Breaches of trust in any of these sectors may reduce the trust level in the society and in turn the costs of collaboration, as well as the economic and democratic stability of the society. These claims are investigated with the aid of Norwegian cross-sectional data.

Two of the most prominent explanations of generalized trust revolve around the role of institutions and that of social networks. The institutional scholarship shows that impartial and efficient institutions foster generalized trust (Delhey & Newton, 2005; Rothstein & Stolle, 2008; Rothstein & Eek, 2009; Rothstein, 2011; Svallfors, 2013). Alternatively, it has been proposed that generalized trust arises from engagement in social networks and voluntary associations (Paxton & Glanville, 2015; Putnam, Leonardi, & Nanetti, 1994; Putnam, 1995a, 1995b, 2001).

The institutional literature seldom explains how confidence is maintained at the individual-level, while social networks explanations seldom account for interactions with the state. For example, Rothstein (2011, 2013) theorizes that citizens most often interact with professional practitioners, not institutions. Yet, this has rarely been tested or explicitly theorized (with a few exceptions: Kumlin & Rothstein 2005; Rothstein & Eek, 2009). By drawing upon the sociology of professions and the generalized trust literature, this paper aims to investigate the correlation between the perceived trustworthiness of welfare state professionals and generalized trust. This paper explores whether the perceived trustworthiness of welfare state professionals in the Norwegian context is linked with generalized trust, also when accounting for one's confidence in institutions and whether they are acquainted with welfare professionals. In doing so, this study discusses a potential link between trust in abstract systems (such as institutions) and generalized trust (a form of interpersonal trust). Additionally, it discusses why trust in welfare state professionals is not only important for the professional groups but may also be important for a well-functioning society.

By using two underexplored indicators—confidence in welfare state professionals and being acquainted with professionals—the study aims to contribute to current scholarship in two ways. First, disaggregating confidence in institutions and professions offers insights about the role of professionals in the institutionalist framework. Second, by controlling for being acquainted with welfare state professionals, it also accounts for the social nature of interpersonal interactions with these professional groups.

## **Literature review: Generalized trust between state, society, and culture**

The extant theoretical explanations of generalized trust revolve either around the role of institutions, that of society, or of cultural norms. These explanations are partly competing and inform of the context and key factors that may influence the level of generalized trust. The institution-centered theory of generalized trust has become increasingly dominant in the literature (Nannestad, 2008; Rothstein, 2011). It focuses on the link between citizens and the state as a way of generating and maintaining social trust (Knack, 2002; Netwon & Norris, 2000; Paxton, 2002; Rothstein & Stolle, 2008; Rothstein, 2011). Rothstein (2013) and Rothstein & Uslander (2005) posit that social trust is embedded in the political context and in legal and political institutions. Although the trustworthiness of the government is important, interactions with authorities at the local level are more important in maintaining generalized trust (Levi & Stoker 2000, p. 495-496). Many of the explanations for why citizen have a certain degree of confidence in institutions, are linked to the institution's performance and responsiveness (Norris, 1999; van der Meer, 2010). One of the conditions for trust discussed by Kumlin & Rothstein (2005) is that people infer others'

trustworthiness via their perception of public service bureaucrats. However, as discussed in the following section, this hypothesis can be extended to welfare state professionals also when accounting for one's level of confidence in the institutions.

Alternative theories highlight the importance of either social or cultural factors. In the society-centered approach, Putnam, Leonardi & Nanetti (1994) and Putnam (1995a, 1995b, 2001) have emphasized that informal interactions and civil society engagement are among the main drivers of generalized trust. Membership in voluntary associations, and other face-to-face interactions with people from different backgrounds, lead to increased trust (Putnam, 1995a, 1995b). The empirical support for approaches concerning the role of social networks is mixed (Newton & Norris, 2000). However, several studies suggest that in societies with dense social networks, as well as good institutions, virtuous spiral form, leading to high levels trust (Levi & Stoker, 2000; Netwon & Norris, 2000; Paxton, 2002).

A third perspective is presented by Uslaner (2002, 2003) who has focused on the importance of cultural norms developed via interactions. Uslaner's approach entails that the levels of trust are relatively stable, as they are influenced by cultural norms transmitted through socialization processes (Uslaner 2002). From this perspective, latent features of the individual, such as optimism or other norms transmitted through socialization, explain variations in generalized trust.

## **Welfare state professionals in Norway**

This study focuses on the case of Norway, one of the most trustful and egalitarian countries. Corruption and favouritism in the Norwegian public sector occur very seldom (Rothstein, 2011). At the aggregate level, cultural factors such as Protestantism and low-income inequality are associated with high generalized trust (Bjørnskov, 2007; Uslaner, 2002) and explain the comparatively high levels of trust found in Norway. Furthermore, most of the welfare state good provision is based on universalistic principles, which are associated with high generalized trust (Rothstein 2011, 2013). However, the presence of these factors does not exclude that additional mechanisms might be present at the individual-level, nor does it fully explain differences in trust between groups of individuals.

Norway has one of the most extensive welfare states with well-developed institutions, and employs a large number of professionals (Statistics Norway, 2015). The low levels of corruption and historical high levels of trust (Delhey & Newton, 2005) make this case least likely to solely capture the effects of petty corruption, and most likely to capture additional mechanisms that might mitigate trust. This case, thus, offers the opportunity to explore mechanisms that may otherwise be blurred by either corruption, or under-developed institutions. Many of the professions within the welfare state are licensed, or require a formal authorization, thus the state becomes a warrant of the competence of the professionals employed within these institutions (Drange & Helland, 2019).

This study focuses on the following core welfare institutions and the main professional groups employed within health care, education, social work, the judiciary, and law enforcement. These are the main professional groups employed within the institutions shown to be most relevant in maintaining generalized trust (Levi & Stoker, 2000). In Norway, these professional groups are mainly employed in the public sector, and are central in implementing public policies, either in their capacity as public employees, or as contractors to local, regional, or national government authorities. Against this backdrop, the next section discusses whether and how welfare state may influence generalized trust.

## **Welfare state professionals and generalized trust**

Generalized trust refers to a form of interpersonal trust, which can be extended to strangers (Glaeser Laibson, Scheinkman, & Soutter, 2000; Nannestad, 2008). The conceptualization of generalized trust employed in this paper refers to the individual assessments of others, based on the individuals' previous personal experiences and conditional on the trustworthiness of others (Cook, Hardin & Levi, 2005; Hardin 2002; Paxton & Glanville, 2015). Inter-personal trust is an important component of generalized trust, which captures whether individual A trusts B to do X (Hardin, 2002). As discussed by Schoorman, Mayer & Davis (2007), interpersonal trust is also a function of previous experience. Experimental research shows the empirical validity of this approach. In trust games, players base their actions on whether their trust was reciprocated in previous games (Ostrom & Walker, 2003). Finally, in a trustful relation, individuals who trust a professional are willing to be vulnerable and submit themselves to the treatment or follow the advice of the professional (Grimen, 2008; Parsons, 1951).

The departure point for many institutional explanations of social trust is that “good” institutions that are fair and treat their clients in an equal manner are important in maintaining trust in a society (Levi, 1996; Knight, 2001; Rothstein & Stolle, 2008). However, the experiment conducted by Rothstein and Eek (2009) in low corruption/high trust Sweden and high corruption/low trust Romania shows that individuals in both countries base their decisions on the trustworthiness of others by assessing the behaviour of professionals. Individuals in the experiment who were assigned to scenarios where the professional engaged in favouritism—helping a patient upon receiving a bribe—exhibited lower levels of generalized trust. This implies that not only institutions but also the professionals employed therein should be “good” to encourage generalized trust, suggesting a direct correlation between trust in professionals and generalized trust. While the link between perceived procedural justice or fairness, and political trust is widely documented, as shown by Grimes (2017), the role of professionals remains somewhat unclear in relationship to generalized trust.

Implementation-side institutions such as the army, the police, and legal institutions have been shown to be of more importance to generalized trust compared to political ones, such as parties, parliaments, and cabinets (Levi & Stoker, 2000, p. 495; Rothstein & Stolle, 2008, p. 444; Rothstein, 2011; Rothstein, Charron, & Lapuente, 2013). One potential reason is that citizens account for their political preferences, when they evaluate encounters with officials from political institutions (van der Walle, Kampen & Bouckaert 2005). Thus, this study will focus on implementation-side institutions.

Additionally, I argue that one should distinguish between implementation-side institutions and the professionals employed within these institutions. Although this distinction is not new, it is often overlooked. David Easton's (1965) seminal model implies a differentiation, amongst others, between institutions and their incumbents. More recently, Grimen (2012) showed that trust in professionals cannot simply be equated with trust in the institutions in which they are employed. Thus, differentiating professionals from institutions is necessary from both theoretical and empirical points of view. This differentiation allows the exploration of differences between institutional policy and the trustworthiness of professionals.

Professionals in their formal roles also provide a face for the system and represent what Giddens (1990) describes as “access points”. If the public views professionals as “access points”, it should be expected that the perceived trustworthiness of welfare state professionals is positively correlated with generalized trust, even when confidence in institutions is controlled for. Direct encounters with institutions have been proposed as a trust-fostering mechanism (Kumlin, 2002). However, Christensen and Lægveid (2005, p. 504), found that trust is of a general nature, and the differences between those who have experience with the services and those who do not are negligible. Although an individual does not know the professional she is going

to visit, she knows that the professional belongs to a group defined by a shared normative identity, much like ethnic or social groups discussed by Warren (2017).

Professionals grant access to the welfare state's goods and services. Ultimately, they either provide certain goods or decide the services to which the public is entitled (for a further discussion see Lipsky (2010)). In the case of sickness, they decide what treatment is to be administered and whether the patient is entitled to sick-leave. Welfare professionals are often in relatively autonomous positions and have some discretionary powers. The relationship between these welfare state bureaucrats and the public is a possible mechanism linking systemic trust to inter-personal trust.

Professionals may inspire the public to draw inferences about the trustful behaviour of other individuals. If a professional bound by ethical rules of conduct fails to follow these rules, it might be that strangers that have no such constraints will have little or no intention of being fair or helping others. I argue that when accounting for one's view of welfare institutions, trust in welfare professionals may be linked with one's level of generalized trust. At the same time, it cannot be excluded that the quality of institutions, such as health care or the police, is bound to the competence and moral integrity of their professionals.

Putnam (1995b, 2000) provides an alternative framework to the institutionalist framework, which focuses on social network factors. In this framework informal interactions with others, such as dinner parties, or membership in voluntary associations influence whether one is trustful. As welfare professionals make up a large part of the workforce in Norway, they may be part of many individuals' social networks, and in turn may influence these individuals in private settings, as suggested by Putnam (1995b). In 2015, 8% of the labour force was employed in the education sector, and 20% in the health and social care sector in Norway (Statistics Norway, 2015). In the data used in this study, around 50% of interviewees reported that they had friends or family members who were nurses, and 60% knew teachers, 26% police officers, and 24% social workers. These individuals may be informed about the functioning of the system and service quality via informal channels, such as dinner parties or work or family gatherings. Individuals may be able to mobilize their acquaintances easily, and access accumulated knowledge of the system if they experience any wrongdoing.

Meetings in informal settings may facilitate the exchange of information regarding the quality of institutions and professional services, however it is unclear whether they can shape influence one's social trust. Nevertheless, it is important to account for whether individuals are welfare state professionals, or have acquaintances who are professionals, in studying the relationship between social trust and trust in welfare professionals. In doing so one can at least partly differentiate between two potential mechanisms: social factors such as informal meetings or dinner parties that may inform the public regarding the functioning of institutions, and trustworthiness of professionals in their formal roles.

Drawing inferences from the behaviour of professionals is arguably a cost-effective strategy of examining the functionality of the system, as well as influencing one's level of generalized trust. Thus, a first hypothesis is that the overall level of confidence in welfare state professionals, employed within healthcare, education, social service, police and judiciary is associated with generalized trust. The second hypothesis is that, as these professionals may be part of an individual's social network, thus affecting how the individual perceives the profession in general, it is expected that having acquaintances, friends, or family members employed in these professions is associated with generalized trust.

## Data

To investigate the relationship between generalized trust and welfare state professionals, data are required on both confidence in welfare state professionals, institutions and on whether individuals have welfare state professionals in their social networks. Despite the significant increase in data collection over the past decade, there is little information regarding trust in professionals. This is especially striking when one considers the considerable amount of information regarding trust in institutions<sup>2</sup>. To overcome this, the study employs novel data taken from the Norwegian ProTrust survey, which combines information about confidence in welfare state institutions and trust in professions. The survey has a response rate of 41%<sup>3</sup> and includes 4007 respondents between 18 and 80 years of age, weighted to represent the adult Norwegian population in terms of age, gender, education, and geography. The survey was carried out electronically in October-November 2015.

Analyses of the dropout and response rates show that the group with the highest nonresponse rate was composed of individuals under the age of 30 with lower secondary education. Post-sampling weights adjust for this potential representativeness challenge. In terms of the reliability, two main tests were carried out. To avoid any potential bias generated by the order in which the response items are presented for their respective questions, the order of all items was randomized, but not that of questions. Several additional tests were conducted to ensure the reliability of the answers. Furthermore, there is no apparent relationship between the proportion of respondents answering “Don’t know” and their progress through the questionnaire. Individuals favouring “Don’t know” answers in opinion questions were not statistically different in terms of background characteristics from those who responded.

## Variables

Following the standard approach in the literature, both the dependent and main explanatory variables are operationalized as indices. The dependent variable is generalized trust, measured using the standard three-item scale. Respondents chose a score on a scale from 1 (low) to 10 (high) anchored by the following pairs of statements: 1) “You cannot be too careful” and “Most people can be trusted”; 2) “Most people look out for themselves” and “Most people are helpful”; 3) “Most people try to take advantage of you” and “Most people try to be fair”. Although this index has some limitations (Nannestad, 2008), at the national level it is strongly correlated to other outcomes associated with generalized trust, such as wallet return (Bjørnskov, 2007), violent crime (Lederman, Loayza & Menendez, 2002), and corruption (Uslaner, 2002; Rothstein, 2011).

The three items have strong internal coherence in the data, with a Cronbach’s alpha score of 0.84. The index ranges from 1 to 10 and has an average of 6.3 with a standard deviation of 1.8. The results are in line with expectations based on current research and existing survey material, where in Norway, alongside the other Scandinavian countries, a larger majority of the citizen believe most other people can be trusted than in other Western European states (Rothstein & Uslaner, 2005; Eurostat, 2015).

To capture latent confidence in welfare institutions and in the trustworthiness of

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<sup>2</sup> To the best of my knowledge, there are no other data sources at the individual level that combine measures of trust in the competence of professionals with those of generalized trust. Swedish survey data (Brante, Johnsson, Olofsson & Svensson, 2015) are available on the trustworthiness of professionals; however, these do not incorporate data on generalized trust.

<sup>3</sup> The response rate is comparable to that of other Norwegian studies; (Christensen & Læg Reid, 2005; Wollebæk & Selle, 2003). Further documentation regarding the data, collection method and questionnaire are available Anonymous 1.

professionals, two separate indices were created. An overview of items included in each index is presented in Table 1. Confidence in welfare state institutions is operationalized as an index calculated based on confidence in health care, the education system, social services, the justice system, and the police. For example, the component on the health care system comprises items regarding confidence in public hospitals at the regional and local levels, as well as trust in the Ministry and Directory of Health. The resulting index has a Cronbach's alpha score of 0.91. Removing the latter institutions, such as ministries and directorates and creating a non-partisan confidence in welfare institutions variables lowers the Cronbach's alpha score to 0.85. However, this variable is potentially more precise when estimating solely role of welfare state institutions, as it removes political institutions.

Table 1. *Overview of welfare institutions and professions included in the analyses.*

Sector	Institutions	Professions
Healthcare	Public hospitals at the regional and local level, the Directorate of Health, and the Ministry of Health	Doctors, nurses, and auxiliary nurses
Education	Public schools, colleges and universities, and the directorate and ministry responsible for education	Teachers, upper secondary teachers, primary school teachers, and professors
Social services	Norwegian Labor and Welfare Administration	Social workers and child-care workers
Judicial system	Judiciary	Lawyers and judges
Police	Norwegian Police Service	Police officers
	<b>Cronbach's <math>\alpha = 0.91</math></b>	<b>Cronbach's <math>\alpha = 0.87</math></b>

The perceived trustworthiness of professionals is operationalized by an index based on the item scores for each professional group presented in table 1. The question asks respondents to indicate the extent to which they trust the competence of different groups of professionals on a scale from '1 (no trust)' to '7 (complete trust)', with a Cronbach's alpha value of 0.87.

Dichotomous variables account for social connections with welfare professions. One variable accounts for whether the individual has worked or works within one in the occupations presented in Table 1. An additional variable accounts for whether the individual has acquaintances; friends or family members employed in each of the occupations presented in Table 1. Individuals with acquaintances in welfare professions tend to be above 40 years old, male and have completed highschool or hold a bachelor's degree.

Alongside institutions, voluntary associations have been considered important in maintaining generalized trust in a society (Putnam, 1995a; Wollebæk & Strømsnes, 2007). Membership in voluntary associations is measured in a similar manner to that presented by Wollebæk & Selle (2003; 2008). There is a distinction between those who have never been members (33%), those who are former members (22%), those who are current members, as well as between active (22 %) and passive participants (23%). Those who have never been members represent the baseline in the regression models.

Following the standard approach in the generalized trust literature demographic

characteristics are also included in the analyses: education level (from '0' representing elementary education baseline, to '3' for higher college or university education), marital status, current employment status, 10 year age cohort, gender, self-reported income level, and immigration background. Additional controls include the county of residence and the 'centrality' of the municipality of residence, measured by the number of hours required to drive to a regional center.

Trustful and optimistic individuals may be more trustful towards both strangers and professionals, as posited by Uslaner (2002, 2003). As such, characteristics are latent; they are constructed using latent profile analysis (LPA). LPA is a probability-based technique that identifies profiles (groups) of individuals that show similar patterns on several variables. As LPA techniques can be model dependent, several group techniques were tested. The most robust solution is with three groups, one answering generally on the mean (Trustful: average), one higher above the mean (Trustful: Trustful), and the other which is below the mean (Trustful: Reserved).

### *Estimation strategy*

The association between trust in professionals and generalized trust is assessed by using weighted ordinary least squares (OLS) regressions. Recent research shows considerable regional differences in relation to the quality of government and the public perception of institutions in Europe (Rothstein, Charron & Lapuente, 2013). They emphasize that the ease of access to public services and the concentration of public services varies systematically between rural and urban areas. Place of residence is operationalized as the respondent's county and the centrality of the municipality (number of driving hours from regional center). Albeit equal institutional development and access to services within Norway, larger municipalities and regional centers have access to more concentrated resources and deliver more encompassing services. To account for the potential heterogeneity, controls for the centrality of the municipality and county are employed.

The causal nexus between generalized trust, institutions and social indicators is disputed. Even though the data at hand offer a rich description, they are only a snapshot in time. This paper does not make causal inferences regarding trust formation in society. Nonetheless, exploring the associations between institutions, professionals, and generalized trust allows us to explore the relevance of mechanisms linking institutional performance, society, and generalized trust. Additionally, as the interdependence between the forms of trust studied here cannot be excluded, structural equations models (SEM) were also employed (results available upon request). The SEM analyses confirm the intuition from the regression results; that the direct correlation between respectively confidence in institutions and trust in professionals and generalized trust is statistically significant. These analyses also highlight that the correlation between trust in professionals and generalized trust is only in part mediated by confidence in institutions, suggesting that trust in welfare in professional may function as a mediator.

## **Results**

The first step before proceeding to the analysis of whether confidence in professionals is related to social trust is to analyse the bivariate relationship between confidence in professions and in institutions. Notwithstanding the theoretical distinction between professionals and institutions, the public may not differentiate between the two. The correlations between trust in the main professional groups and their corresponding institutions are moderate, but significant, varying from 0.33 ( $p < 0.000$ ) for social workers and the Norwegian Labour and Welfare Administration, to 0.82 ( $p < 0.000$ ) between police officers and the Norwegian police. The correlations between



confidence in schools and teachers, universities and professors, hospitals and nurses/doctors vary between 0.4 and 0.5. The results are similar to those of Brante, et al. (2015) in Sweden and support the hypothesis that individuals differentiate between confidence in institutions and that in professionals.

Table 2. *Indicators of confidence in institutions, professionals and acquaintance with welfare professionals regressed (OLS) on generalized trust.*

	<b>Model 1</b>	<b>Model 2</b>	<b>Model 3</b>	<b>Model 4</b>	<b>Model 5</b>
<b>Confidence: welfare institutions</b>	0.52*** (0.04)	0.39*** (0.05)			0.39*** (0.05)
<b>Confidence: welfare professionals</b>	0.45*** (0.05)	0.33*** (0.05)			0.33*** (0.05)
<b>Acq. in welfare profession</b>			0.19* (0.08)	0.03 (0.07)	0.03 (0.07)
<b>Employed in welfare profession</b>			0.40*** (0.10)	0.05 (0.09)	-0.02 (0.09)
<b>Vol.associations: Former member</b>		0.05 (0.07)		0.06 (0.07)	0.05 (0.07)
<b>Vol.associations: Passive member</b>		0.10 (0.07)		0.13 (0.07)	0.10 (0.07)
<b>Vol.associations: Active member</b>		0.29*** (0.07)		0.32*** (0.07)	0.29*** (0.07)
<b>Trustful: Reserved</b>		-0.48*** (0.10)		-1.37*** (0.08)	-0.48*** (0.10)
<b>Trustful: Trustful</b>		0.20* (0.09)		0.93*** (0.07)	0.20* (0.09)
<b>Married/Partner</b>		0.10 (0.06)		0.13* (0.06)	0.10 (0.06)
<b>Male</b>		-0.17** (0.05)		-0.19*** (0.06)	-0.18** (0.05)
<b>Immigrant</b>		-0.05 (0.08)		-0.04 (0.08)	-0.05 (0.08)
<b>Intercept</b>	1.57*** (0.16)	2.38*** (0.31)	6.02*** (0.07)	5.62*** (0.21)	2.36*** (0.32)
<b>Adj. R<sup>2</sup></b>	0.19	0.24	0.01	0.21	0.24
<b>Additional controls</b>	No	Yes	No	Yes	Yes
<b>Num. obs.</b>	3958	3884	4005	3927	3884
<b>VIF</b>	1.19	1.23	1.02	1.32	1.33

\*\*\*  $p < 0.001$ , \*\*  $p < 0.01$ , \*  $p < 0.05$ .

The reference categories are: Not acquainted with welfare professionals; Not employed in welfare profession; Voluntary associations: Never member; Trustful: average; Not married; Female, Norwegian. Additional controls, not shown in models 2, 4 and 5: Current employment status, age, education level, income, centrality and county of residence. Weighted models.

Table 2 displays the regression results. Models 1 and 3 serve as baselines and include only the institution, and respectively social network specific covariates. Model 2 and 4 additionally include the full set of control variables, while in model 5 all the covariates are included.

The institution-centered theory of generalized trust has focused on the link between citizens and the state as a way of generating social trust (Rothstein & Stolle, 2008; Rothstein, 2011). The results of the multivariate regressions from Table 2 show that increased trust in welfare state institutions is correlated with higher levels of generalized trust, thus offering additional support for the institutionalist theory. The correlation between trust in welfare state institutions and generalized trust remains positive and significant when controlling for factors shown to be important by the current literature. The magnitude and direction of the coefficient is consistent with the expectations derived from current scholarship. Nevertheless, as shown in Models 1 and 2, the results indicate that trustworthy professionals and institutions, are positively associated with increased generalized trust. This finding is in line with my theoretical expectations and suggests that alongside the presence of “good” institutions (Rothstein, 2011), professionals that are competent and responsible are positively associated with higher levels of generalized trust. The correlations between trust in institutions, professionals, and general trust remain stable when possible confounders are controlled for in Model 3, although there is a small reduction in magnitude.

In the European context demographic factors correlate with generalized trust (Mewes, 2014). Experimental studies also show that individuals from different backgrounds and ethnicities have different trust propensities; however, these are also contextual (Ostrom & Walker, 2003). Even though models 2, 4 and 5 include all available background characteristics captured in the data, it is still possible that the levels of generalized trust are affected by other factors that the present study does not capture.

Putnam (1995a) emphasized the role of informal networks in maintaining generalized trust. To capture whether individuals’ social networks influence their generalized trust, model 2, 4, and 5 adjust for membership in voluntary associations. The results indicate that only members of voluntary associations who actively participate in the organization are significantly more trustful of strangers compared with the unaffiliated. This finding corroborates previous findings in Norway (Wollebæk & Selle, 2003).

Model 3 shows that having acquaintances, friends, or family members employed in a welfare state profession is not significantly correlated with generalized trust. Although there is a positive relationship between working in a welfare profession and generalized trust, this relationship loses significance when introducing additional controls (in Model 4 and 5). These results do not support the hypothesis that informal interactions with welfare state professionals correlated with social trust. As nurses and teachers are some of the most common professional groups, with around 80% of the respondents having an acquaintance in at least one of these occupations, robustness models were run without these two occupations. When these occupations are omitted, the results remain largely unaltered. Interactions between confidence in professionals and acquaintances in welfare state positions are not significant. However, confidence in welfare state institutions and professionals might also capture the indirect association of being engaged in social networks.

Norway has sometimes been considered a deviant case because of its high level of social trust. Yet the mechanisms leading to generalized trust seem to operate in a similar manner to that elsewhere. As indicated by previous research, resources tend to be positively associated with social trust. The models indicate that greater cultural resources (education) have a larger impact than economic ones (income). As discussed by Stolle (1998), education mitigates scepticism and enhances tolerance. Overall, the findings presented here are similar to those at the European level (Charon & Rothstein, 2016; Mewes, 2014). Voluntary associations, education, and confidence in welfare and law enforcement institutions have a positive association with generalized trust. The results in Table 2 also illustrate that individuals who are trustful of welfare professionals are also more trustful of strangers. This relationship is

robust to the inclusion of other potential confounding factors. The statistical significance of the correlation between confidence in welfare professionals and generalized trust is not altered by controls for employment in a welfare state profession or having welfare professionals in one's social network.

## Discussion and concluding remarks

Unlike Cook, Hardin and Levi (2005, p. 69) who argue that institutions “will work well even if they are staffed by knaves”, this paper suggests that both trustworthy institutions and professional groups are of importance in maintaining generalized trust. The analyses provide support for the hypothesis that trustworthy professionals are important in maintaining a high level of generalized trust. This result substantiates the insights from the institutionalist framework and provides possible mechanisms through which this theoretical framework can be connected to the individual levels of trust. A challenge of the institutionalist framework is linking interpersonal trust to institutional trust, while the societal explanations of generalized trust sometimes overlook the role of the state. This study suggests that by accounting for confidence in welfare state professionals in the study of generalized trust may be an efficient way to link the state with society and by-pass some of these issues. In doing so, this paper has shown that the perceived trustworthiness of welfare state professionals is not only important for the professional groups, but has society-wide implications, by being a correlate of generalized trust.

The results also highlight that confidence in institutions is linked with generalized trust, also when trust in professionals is accounted for, thus giving some reason to believe that the institutional and professional aspects of the welfare state, each in their own way may be linked with generalized trust. While the findings also indicate that the association between confidence in welfare state professionals and generalized trust is in part mediated by confidence in institutions, this association is considerably smaller in magnitude. Nevertheless, it points towards the complex nature of trust formation.

Incorporating whether welfare professionals are part of individuals' social networks controls for social factors, and at least to a certain extent differentiates between two potential mechanisms: social factors such as informal meetings or dinner parties that may inform the public regarding the functioning of institutions, and trustworthiness of professionals in their formal roles. This encompasses some of the concerns discussed in the societal approaches to generalized trust. The results show that having acquaintances, friends, or family members employed in a welfare state profession does not correlate with generalized trust, once controlled for confidence in institutions. A limitation of the measure of social networks employed here is that it fails to account for the type of information transmitted in these networks, thus increasing the uncertainty of what the variables capture. Arguably, these results highlight that inferences about the trustworthiness of others are easier to make in formal interactions with professionals. In a formal interaction with a professional, there is an expectation of moral integrity and professional ethos. If such expectations are not met, the individual is likely to infer that this pattern will also hold for the behavior of the public.

The results also show that once controls are introduced for one's predisposition to be trustful the coefficients of being employed in a welfare profession is reduced considerably and so is the correlation between having acquaintances in welfare professionals (Model 3 to Model 4). These findings may indicate that either one's personality traits (such as trustfulness) may affect the interpretation in two ways. It may be either argued that exposure to welfare state institutions (either through their job or network) mediates their view of welfare institutions, or as argued by for example Uslaner (2002) some individuals have a more trustful disposition than others do. If

the latter is the case, the observed correlations between confidence in welfare state institutions and professionals would be spurious. Future research could focus on identifying which mechanisms pertaining to personality traits or networks may affect one's evaluations of trustworthy professionals and institutions.

As previously discussed, Norway is a country where individuals have high levels of trust and a wide radius of trust (Delhey, Newton & Welzel, 2011). Petty corruption and favoritism in the public sector are very low (Rothstein & Stolle, 2008), so there may be little to gain from having acquaintances employed in key welfare state positions. Public processes tend to be transparent. The public can access information online relatively easily, so the added benefit of having welfare professionals in one's network is again relatively low. Given the existing institutional landscape and high historical levels of trust, social ties employed within the welfare state are superfluous. However, trust in institutions and welfare professionals can also be the bearer of sentiments such as occupational loyalty and dependence on welfare state (Kjølørød 2010), where they would be observed through the correlation between trust in professionals and generalized trust.

Although this paper cannot account for developments over time, it is a first step in differentiating between the trustworthiness of professionals and institutional quality. The results highlight that confidence in the abilities of welfare professionals is a significant factor in maintaining a high level of generalized trust. More research is needed to understand the interplay between trustworthy professionals, institutional policies, and generalized trust better. Welfare professionals are on the front line of implementing public policy, and many are in direct contact with the public. Given the increase in New Public Management reforms and standardized routines, the relationship between the population and professionals is under greater scrutiny. Hardin's (2002) thesis that individuals place their trust in those they believe have strong incentives to act in the individual's best interest is becoming increasingly relevant. If individuals lose confidence that professionals will act in their best interest, will this also have an impact on generalized trust, or will they only lose confidence in the institution?

Given the large differences in institutional confidence and the quality of government between countries, comparative research is needed to improve the understanding of the context dependency of the mechanisms linking confidence in professionals with social trust. This study shows that generalized trust is not correlated with the presence of welfare professionals in a network. Nonetheless, in other countries with a different radius of trust, where family and close ties are more important, and perhaps with a less developed public sector, the situation may be different, as individuals may gain additional benefits from having welfare state professionals in their social network.

## Supplementary material

The supplementary material such as the full specification of Table 2, including all coefficients and additional robustness analyses mentioned in text (the structural equation models, analogous regressions to Table 2 with clustered standard errors on municipality, regressions where acquaintances with nurses and teachers are excluded, construction of the trustful/reserved variable and additional correlations between the variables included in the model) are available upon request from the author.

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