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## Authoritarianism, social dominance and trust in public institutions

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# AUTHORITARIANISM, SOCIAL DOMINANCE AND TRUST IN PUBLIC INSTITUTIONS

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## ABSTRACT

Trust in public institutions plays a key role in democratic societies. To the extent to which individuals rely on institutions such as the government and the parliament, they would be more willing to participate and get involved in public life; therefore, trust in institutions impacts in the legitimacy and stability of democratic regimes. To date there are several approaches to this area that usually compare general trust levels by using country surveys, nevertheless the emphasis so far is mostly descriptive and based on cross sectional data. The present paper attempts to overcome some of these limitations by proposing an explanatory model of trust in public institutions to be estimated in a longitudinal framework. The central hypothesis guiding the analysis is that high levels of social dominance (SDO) and authoritarianism (RWA) are important predictors of trust in three types of public institutions: the government, political parties and armed forces. The analyses are based on a panel survey (n=1,800) of university students from the P. Universidad Católica de Chile. Results from structural equation models support the hypotheses, even though there are relevant differences between SDO and RWA in terms of predictive power according to the type of institution in which individuals trust.

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## Introduction

Trust in public institutions is considered an essential feature of democratic systems. To the extent to which people trust in institutions such as the parliament, the president and/or the government, democracy acquires support and legitimacy. Even though the concept of trust constitutes a central field of study for the social sciences, most of the attention so far has been directed to interpersonal or “horizontal” trust, particularly from sociology and psychology, whereas individuals' trust in institutions – so called “vertical” trust – has remained in the field of political science. These two different traditions have also two different methodological approaches: horizontal trust emphasizes individual differences in terms of personality characteristics as well as social capital, whereas the analysis of vertical trust focuses on country differences in trust levels, usually based on standardized survey studies. The present article attempts to bridge both traditions, focusing on trust in public institutions but from the perspective of individual differences, considering two traditional psychosocial concepts as predictors of trust: authoritarianism (RWA) and social dominance orientation (SDO). Our main hypothesis is that both authoritarianism and social dominance have a general positive impact on trust in public institutions, even though we expect differences in the level of impact according to the character of particular institutions. The hypotheses are tested in a longitudinal framework in order to address causality issues among the concepts in study.

The paper is organized in five sections. The first part discusses the concept of trust in institutions and accounts for the state of the art in the area. The second section summarizes the literature of SDO & RWA as well as establishes the theoretical links with trust in institutions. Data, variables and methods are described in section three, followed by the results of the analysis described in the fourth section. Finally, section five discusses the main findings and limitations of this study as well as proposes ideas for future developments.

### 1. Trust in public institutions

Trust is considered a key concept for understanding interactions and social cohesion for a number of disciplines, particularly sociology (see Luhmann, 1979; Giddens, 1984;

Sztompka, 1999), political science (see Newton, 2006), and psychology (see Erikson, 1950; Ross & Mirowsky, 2006; Burke, 2006). A usual distinction in this area is made between *horizontal trust* – trust in other people – and *vertical trust* – trust in supra-individual bodies as organizations and institutions (Torney-Purta, Klandl, & Henry, 2004). Sociologists, more in line with *horizontal trust*, have focused on trust as a key component of social cohesion in contemporary democratic societies (Putnam, 1995; Badescu & Uslaner, 2003). They understand and study trust as a social good needed to achieve common goals (Putnam, 1995) by interacting in a social environment of interests in conflict, as in any democracy (Warren, 1999). In line with this horizontal perspective, psychologists have worked trust from its developmental (Erikson, 1950) and personal basis (Ross & Mirowsky, 2006; Burke, 2006) through socialization, and generation of attitudes that express trust towards individuals or groups (Maio, Olson, Bernard, & Lucke, 2006; Olson & Maio, 2003). On the other hand, political scientists are usually interested in *vertical trust* (Hooghe & Stolle, 2003), focusing on aggregated indicators at a national level and on its impact in democracy (Warren, 1999) and welfare state measures (Rothstein, 2005). In this paper we aim at linking horizontal and vertical traditions, by incorporating elements from social psychology to the study of trust in institutions, this is, emphasizing differences between individuals and their impact on institution's trust levels.

As many social science concepts, the definition of trust is not unequivocal and usually problematic (Newton, 2006). It is possible to find general definitions as the one proposed by Offe (1999), who conceives trust as a cognitive premise by which individual, collective and corporative actors interact, based on an evaluation of others preferences for cooperation and unselfishness (Offe, 1999). On the other side, Hardin (2001) suggests a narrowed definition by conceiving trust as an evaluation situated in a defined context. In this line, trust would not be a general predisposition but it would vary according to situation, agents and contents (Hudson, 2006). Variations in trust would be explained by cognitive and non-cognitive elements (Hardin, 2001; Segovia, Haye, González, Manzi, & Carvacho, 2008), such as knowledge, personal experiences, and even ideologies (Maio, Olson, Bernard, & Lucke, 2006; Olson & Maio, 2003). In this sense, trust would express feelings, beliefs and behavior towards an object, helping to

simplify interactions and decision-making towards them (Maio, Olson, Bernard, & Lucke, 2006; Olson & Maio, 2003).

Trust in public institutions has been conceived as the extent to which institutions are expected to carry on their expected role satisfactorily (Rothstein, 2005; Hudson, 2006). Institutions are entities in charge of regulating individual incentives and options (Offe, 1999). They can be divided in two large groups: public and private. Both types of institutions generate elements of order and predictability, shaping, training and bounding agents within a logic of appropriate action (March & Olsen, 2006). In this study we will focus our attention on public institutions conceived as those that provide the basis for the good functioning of democracy (Newton & Norris, 1999; Warren, 1999). Trust in public institutions such as the parliament, the government and armed forces has been related to how efficient are they perceived according to democratic principles (Newton, 2006) or justice principles (Rothstein, 2005). But besides efficacy, it has also been argued that trust in institutions depends on the amount of personal resources, levels of threat and the evaluation of the own competencies for dealing with those threats (Ross & Mirowsky, 2006). It has been argued that those with fewer personal resources, both material as non-material, should exhibit lower trust levels when experiencing threatening situations, since they do not feel capable of preventing damages or bear the consequences (Ross & Mirowsky, 2006). Furthermore, the criteria that individuals use for evaluate institutions depends on beliefs and values (Gabriel, 1995) acquired during socialization processes (Hardin, 2001) as well as in perception of competitiveness and social danger through the experiences of maintenance and breaking of trust in the day-to-day community (Sibley & Duckitt, 2009; Yamagishi, 2001). All in all, as institutions generates predictability (March & Olsen, 2006), routines and certainty about social and economic exchanges (Moran, 2006), they could counterbalance the influence of lower trust levels from those with less confidence in their own capabilities.

Empirical research in trust in public institutions from political sciences has progressively evidenced a general decline in the trust levels in the parliament, the legal system, the public administration and the armed forces (Newton & Norris, 1999). Political analysts argue that there is a growing political dissatisfaction by the side of the citizens about contemporary democratic systems (Torcal & Montero, 2006) and a

tendency to diminish the trust on hierarchical institutions counterbalanced by increasing interpersonal trust (Inglehart, 1997; 1999). Such tendency has been related to a replacement of the legitimacy based on hierarchical authority by the legitimacy based on social inclusion parameters (Dalton, 2000).

In this study we point out that the suggested replacement of the legitimacy based on hierarchical authority is far from being a generalized tendency. We first suggest that there are individual differences as far as trust in public institutions is concerned, and secondly we propose that this variability can be at least partially related to psychosocial characteristics as authoritarianism and social dominance orientation.

## **2. The influence of authoritarianism and social dominance on trust in public institutions**

### **2.1 Authoritarianism**

The concept of authoritarianism has experienced several variations since its origins in *The Authoritarian Personality* (Adorno, Frenkel-Brunswik, Levinson & Sanford, 1950). With an initial focus on explaining the roots of anti-Semitism from psychoanalytic theory of personality and after a number of criticisms (see Brown, 1965 for details), Altemeyer proposes a different perspective of authoritarian traits using a social learning model that has reached high adherence and international use (Brewster, 1997). According to Altemeyer (1981; 1998), right wing authoritarianism (RWA) is a collection of social attitudes that favor submission to social legitimated authorities (authoritarian submission), a strict adherence to conventional norms and values accepted by society and its authorities (conventionalism), and feelings of aggression towards norms violators (authoritarian aggression) (Van Hiel, Cornelis, Roets, & de Clercq, 2007). Van Hiel et al. (2007) further point out that authoritarianism appears to be highly bonded to cultural conservatism - a disposition to preserve stability and tradition (del Águila, Jiménez, Luque, Sangrador, & Vallespín, 2006) - making it difficult to differentiate between authoritarianism and cultural conservatism. Authoritarianism expresses a feeling of threat towards collective security and social cohesion (Sibley & Duckitt, 2009). It depends on mental schemata generated regarding the social environment (Sibley & Duckitt, 2009) according to a series of stimulus and social modeling (del Águila et al., 2006). Threatening or dangerous perceived environments create

prejudices in people that help them foresee various social hazards (Sibley & Duckitt, 2009) in order to avoid them.

The scale for measuring RWA consists of 32 closed items such as “The established authorities generally turn out to be right about things, while the radicals and protectors are usually just ‘loud mouths’ showing their ignorance” (Altemeyer, 1998, p.50), which could be answered through an agreement scale that goes from -4 (strongly disagree) to +4 (strongly agree) (Altemeyer, 1998). Empirical findings reveal that the values behind authoritarianism are those that support personal and social security, such as traditionalism ( $r=0.51$ ), conformity ( $r=0.4$ ) and spirituality ( $r =0.26$ ) (Heaven & Connors, 2001). These are, at some level, anti-democratic tendencies that are enhanced in threatening situations (Jost, Kay, & Thorisdottir, 2009). For people with authoritarian traits, social hierarchy and the existence of superior and inferior people is considered natural and right (Stubager, 2008). Libertarians, on the other hand, value tolerant, free and equalitarian interactions, no matter the social position of their actors (Stubager, 2008). People prone to authoritarianism think more based on memorized ideas formulated by their authorities than in an independent and critical way, being therefore much more likely to show fragmented and inconsistent opinions (Altemeyer, 1998).

Among other interesting features, it has being shown that when a person appears to be cognitively sophisticated, being able to generalize about differences, they are more tolerant and less authoritarian in their social attitudes (Stubager, 2008). It has also been observed that a significant percentage of authoritarian people are able to hold an undifferentiated and changing political position, and generally adhere to some kind of religion (Altemeyer, 1998).

In the present study, we will focus on the submission dimension of authoritarianism considering its theoretical connection with vertical trust over institutions and authority<sup>1</sup>. Given that social threat towards social cohesion and collective security is related to authoritarianism, it is possible to think that people with higher levels of authoritarianism might show more trust in institutions than people with lower levels. This hypothesis has its foundations on the fact that institutions are a vertical power

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<sup>1</sup> About the authoritarianism dimensions see Funke (2005).

that impose themselves on individuals and the groups they belong at in order to regulate social interactions within and between groups. Even though general trust on public institutions might be predicted for more authoritarian people, different levels of trust could be anticipated for different kinds of institution. Institutions that exert more power and authority on people should, therefore, be more trusted by highly submissive people than by those with lower orientations towards authoritarian submission. Hence, army and police should be highly trusted by people with high levels of authoritarian submission. Ruling institutions, such as president and government might also be highly trusted by people with high levels of authoritarianism given their position as the highest authorities at national level. This effect could be dependent of the political orientation of the current government because authoritarian submission is understood as the submission towards legitimated authorities. Finally, parliament and parties should be less trusted by people with higher levels of authoritarianism given their democratic character, which implies negotiation between groups and the possibility of change.

## **2.2 Social dominance orientation**

Sidanius and Pratto (1999) define social dominance orientation (SDO) as “a very general individual difference expressing the value that people place on nonegalitarian and hierarchically structured relationships among social groups” (p.61). SDO expresses a tendency to support the domination of some social groups over others, no matter which of them are dominators or subordinated. It is not related to people’s preference regarding dominance attitudes or actions between people, but rather between groups (Sidanius & Pratto, 1999). The SDO scale was originally developed in 1994 by Pratto, Sidanius, Stallworth and Malle and refined in 1999 by Sidanius and Pratto, in an effort to emphasize orientations toward intergroup relations rather than unspecified or interpersonal relations (Sidanius & Pratto, 1999). It consists of 16 closed items such as “Some groups of people are simply inferior to other groups” with a response scale coded from 1 (very negative) to 7 (very positive) (Sidanius & Pratto, 1999).

Any society has a tendency towards group hierarchy, and the hierarchical order is powerfully determined by social institutions (Sidanius & Pratto, 1999). SDO ends up being a tendency naturally generated by any socialization processes within a

hierarchical society (Sidanius & Pratto, 1999). People choose or adhere to an ideology according to the implications it has with respect to group interaction, favoring those compatible with their SDO (Sidanius & Pratto, 1999).

From a psychological point of view, SDO can be understood as a personal attitude towards group competition (Sibley & Duckitt, 2009). The more consistent the experience of a competitive world is for a person, the higher their perceived necessity to compete (Sidanius & Pratto, 1999) and the stronger their competitive attitude will be. This kind of competitive environment makes people legitimate social group hierarchy, understand the use of power as desirable, and the achievement of victory as fundamental (Sibley & Duckitt, 2009). As they develop this tendency, they become less empathetic (Sidanius & Pratto, 1999; Heaven & Connors, 2001), more closed to ideas different from theirs (Sibley & Duckitt, 2009), and more resistant to change (Devos, Spini & Schwartz, 2002). This all occurs so that they are able to protect themselves in highly competitive contexts.

According to what SDO embodies, it could be reasonable to expect that people with higher SDO will trust public institutions that regulate social competition in a way that maintains a hierarchical order between groups. Therefore, their trust will vary across the institutions according to the perception they have about the level of hierarchical order that each institution supports. Even though we have no measures of the extent to which the different Chilean institutions analyzed here support or not a nonegalitarian social order, some general hypotheses could be derived about the way different levels of SDO impact on the level of trust people place on public institutions. First, people with high SDO might trust institutions that keep the current order, such as army and police, more than those with lower SDO. Ruling institutions, such as President and Government, might be trusted differently according to the values they hold. Ruling institutions that support egalitarian group interaction should be more trusted by those with lower SDO. Regarding political institutions as the parliament and political parties it is possible to point out competing hypotheses. On the other hand, people with high SDO might show more trust in these institutions since they represent the places where possible changes about the political and social order are discussed and proposed. On the other hand, parties and parliaments can be perceived as part of the institutions in charge of the maintenances of the current order, which actually might be the case in

Chile given the particularities of its electoral system that forces the existence of two big coalitions and excludes political alternatives (Cleuren, 2007).

### **2.3 Relations between RWA and SDO**

Even though SDO and RWA are both theoretically and empirically different (Heaven & Connors, 2001), they also share some features. These similarities and differences could help us to understand the extent to which they explain, together or separately, trust in public institutions. Both orientations are mediated by the worldviews people generate through their socialization process or social learning (Sidanius & Pratto, 1999; Altemeyer, 1998), which later become attitudes. These worldviews are formulated independently from people's personalities (Sibley & Duckitt, 2009) and strongly depend on the values held by them, which crystallize towards adulthood (Inglehart, 1997). Different ideologies, such as normativism/humanism, conservatism/liberalism or closed/open mindedness can be linked to the same two dimensions that the RWA and SDO reflect (Van Hiel et al., 2007). Using both constructs it is possible to explain social prejudice, ethnocentrism and political conservatism (Altemeyer, 1998).

The differences between RWA and SDO are also significant. According to Altemeyer (1998), people with high SDO, radically different from those with high RWA, are not particularly religious and do not declare themselves to be benevolent. Nevertheless, the biggest differences between these orientations are the social unit towards whom these attitudes are directed, the content of the attitudes, and the worldviews that generate them. Authoritarians perceive the world as a place full of danger, which therefore needs a protective normative moral that rules it (structures, traditions and values), and that should be considered correct (Altemeyer, 1998). The content of an authoritarian orientation is an attitude regarding authority, and its social unit is the in-group (Sidanius & Pratto, 1999). On the other hand, those with high SDO perceive the world as a competitive place, where winning is a necessity. The content of this orientation is an attitude regarding social group hierarchy, and its social unit is the relation between the different social groups (Sidanius & Pratto, 1999). Therefore, in terms of hypothesis of differential effects on trust, it would be expected that SDO should show a stronger association to those in charge of keeping the hierarchy of

power in society, as the government, whereas authoritarianism should relate stronger to those institutions that keep order in society, as armed and police institutions.

### **3. Data, variables & methods**

#### **3.1 Data**

We use data from the “Youth, Culture and Religion” survey. This study is a panel research developed at the Catholic University of Chile since 2007. The general objective is the description and evaluation of changes in identities, beliefs and practices in religious, social and political aspects from the beginning of college education to the transition to work.

This study considers two cohorts, the first one from 2007 and the second from 2008 freshmen. The participation in the study was voluntary. The questionnaire was applied in the first semester (in 2007 and 2008) and applied again every two years. The filling of the questionnaire took about one hour. The sample analyzed for this study corresponds to the 1,797 panel cases that participate in their first wave in 2007 and 2008 (measurement time 1), and in the second wave in 2009 and 2010 (measurement time 2), respectively. The mean age by the time of the first wave was 18.5, and the female percentage was 60%.

#### **3.2 Variables**

Trust in public institutions was measured by a multiple indicator scale, each indicator representing a different institution. The general question was: How much do you trust in the following institutions? Participants answered in a scale between 1 “not at all” to 7 “plenty of trust”. It is possible to identify three dimensions according the characteristics of the institutions: party related institutions, governmental institutions and armed institutions (See Table 1). These dimensions will constitute the final dependent variables, estimated later as latent constructs through confirmatory factor analysis.

**Table 1: Dependent variables**

Name	Dimensions	Institutions	Question
<b>Trust in institutions</b>	Party related institutions.	Parliament Political parties	To what extent do you trust in the following institutions ...?
	Governmental institutions	The government The president	(1) Not at all
	Armed institutions	Army	.
		Police Civil police	. (7) Plenty of trust

**Table 2: Independent variables**

Name	Items	Response
<b>RWA - submission dimension</b>	The keys for a successful society are obedience and discipline.	To what extent do you agree or disagree with the following statements:  (1) Completely disagree  . . . (7) Completely agree
	Governments must show firm hand each time when are difficulties	
	More than parties and political programs, what we need is a leader who solves our problems.	
	Instead of so much concern about peoples' rights, what this country needs is a firm government	
<b>Social Dominance Orientation</b>	It's probably a good thing that certain groups are at the top and other groups are at the bottom	.
	It's OK if some groups have more of a chance in life than others.	.
	Inferior groups should stay in their place	.
	Some groups of people are simply inferior to other groups.	(7) Completely agree
<b>Control variables</b>	Sex	Female=1, (ref=Male)
	Parent's Educational level	Mean of mother and father highest educational level reached (elementary, high school, technical, university incomplete, university complete and postgraduate).
	Political orientation	Center, Left-wing, independent and none, (ref=right wing)
	Religious orientation	Evangelic, others, agnostics, atheists and believers without religion (ref=Catholics)

RWA and SDO are the main independent variables. For RWA we use four items from the submission dimension of the construct adapted to Chile (Haye, Carvacho, González, Manzi, & Segovia, 2009), whereas in the case of SDO we considered four items from the scale developed by Pratto, Sidanius, Stallworth and Malle (1994). The

items were answered in a scale from 1 “totally disagree” to 7 “totally agree” (see Table 2). The analysis also includes control variables such as sex, parent’s education, political orientation and religious orientation.

### 4. Results

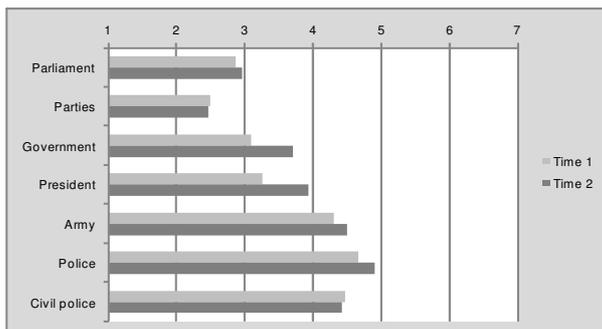
We start looking at the descriptive statistics of the trust items separated for the two survey waves as presented in Table 3.

**Table 3: Descriptive statistics of the trust scale items**

Variable	T1			T2		
	N	Mean	SD	N	Mean	SD
Parliament	1,757	2.87	1.39	1,786	2.96	1.41
Parties	1,760	2.50	1.30	1,783	2.47	1.29
Government	1,760	3.09	1.51	1,790	3.70	1.68
President	1,758	3.26	1.78	1,787	3.93	1.89
Army	1,761	4.30	1.81	1,787	4.49	1.87
Police	1,767	4.66	1.66	1,789	4.90	1.68
Civil police	1,759	4.47	1.59	1,785	4.42	1.67

Most trust scores increase significantly along time according to the t test performed ( $t = <2.17 - 11.25>$ ), with the exception of the civil police that maintains its high trust, and the political parties that keep the lowest trust in the scale.

**Figure 1: Means of trust in institutions’ indicators in time 1 & time 2**



Source: Study “Youth, Culture and Religion”

The army, police and civil police are the institutions that count with the highest trust indicators, whereas democratic institutions as the parliament and political parties exhibit comparatively lower trust, as we can observe in Figure 1:

The second step in our analysis corresponds to the estimation of the measurement model. Since trust, RWA and SDO are measured by multiple indicators, we estimate the constructs as latent variables through confirmatory factor analysis. We tested first two different operationalizations of the trust in institutions measurement model: a single factor model and a factor model grouping institutions in three different categories: party related institutions (party/parliament), government institutions (government, president) and armed institutions (army, police, civil police). The second factor model fitted better to the data and we included this specification for the estimation of the overall measurement model as presented in Table 4.

**Table 4: Measurement model**

	Items	RWA	SDO	Trust party related	Trust gov.	Trust armed
<b>RWA</b>	Obedience / discipline	1.28				
	Firm hand	1.40				
	Need of a leader	1.20				
	Firm government	1.40				
<b>SDO</b>	Groups up/down		1.24			
	Opportunities for some		1.12			
	Inferior groups down		0.47			
	Some groups are inferior		0.86			
<b>Trust</b>	Parliament			1.22		
	Parties			0.87		
	Government				1.50	
	President				1.47	
	Army					1.40
	Police					1.36
	Civil police					1.16

**Model fit**

$\chi^2 (355, N=1762) = 1673.67, p = .00; CFI = 0.94; RMSEA = 0.046$

Maximum likelihood estimation, unstandardized coefficients. Factor loadings fixed to be equal in both time points (weak measurement invariance).

The factor loadings were fixed to be equal across time in order to ensure the stability of the measured latent constructs, so called weak measurement invariance. The correlation between SDO and RWA in both times was high (T1= 0.52; p<0.05 and T2=0.54, p<0.05), consistent with previous evidence (Heaven & Connors, 2001). Based on the measurement model, we will approach our objective by consecutive steps starting from descriptive associations, followed by cross sectional models and finally with the specification of a longitudinal model.

We start taking a more careful look at the association between specific trust items with RWA and SDO (as factor scores) in both time measured. Table 5 presents the corresponding correlation coefficients.

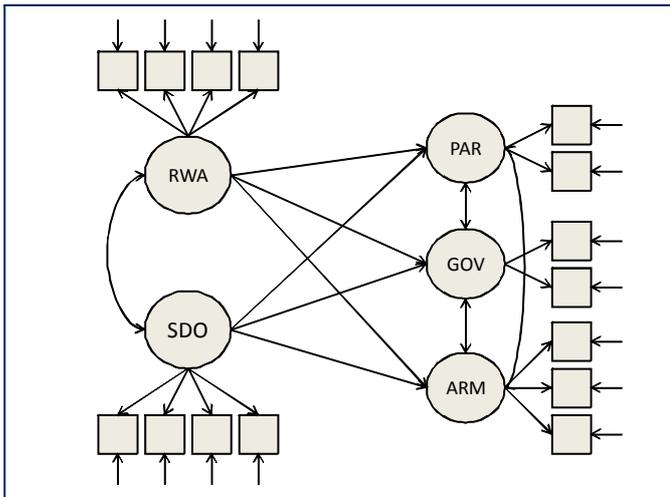
**Table 5: Correlation matrix of trust in public institutions' items, RWA and SDO in the two measurement points**

	RWA		SDO	
	T1	T2	T1	T2
Parliament	-0.02	0.10**	0.05*	0.10**
Parties	0.04	0.07**	0.11**	0.10**
Government	-0.21**	0.12**	-0.13**	0.04
President	-0.22**	0.20**	-0.14**	0.08**
Army	0.32**	0.41**	0.23**	0.28**
Police	0.16**	0.24**	0.11**	0.13**
Civil police	0.12**	0.23**	0.06*	0.11**

N= 1,763; \*p< 0.05, \*\* p<0.01

RWA shows significant associations with trust in all public institutions, except for the parliament and the political parties in time 1, whereas SDO presents no association only with trust in the government in time 2. Despite the overall positive association between trust indicators with RWA and SDO, we observe some differences in the sizes of the associations, which become larger at the bottom of the table where armed forces are located. Furthermore, there are some negative correlations that refer to a specific area and time point, namely governmental institutions (president and government) in time 1 both for RWA and SDO, which reverse their effects in time 2. Since most of the associations with the other trust objects remain rather stable, a possible hypothesis to this regard would be that there is a modification in the characteristics of the governmental institutions that made them to be negatively associated in the first time point and positively in the second. Attending to the governmental changes between the surveys, we actually had a presidential election in Chile that implied a replacement of a center-left coalition in power for 20 years by a right-wing government. Therefore, there are probably personal political differences mediating this negative-to-positive association.

The next step in the analysis deals with the estimation of models for both time points separately. The model is represented in Figure 2.

**Figure 2: Latent structural model of trust in public institutions predicted by RWA & SDO**

At the same time, we introduced covariates for controlling by exogenous influences in the model, as sex, religion and political orientation. Results of the estimation are presented in Table 6. The estimation produced fit indexes within the acceptable ranges in both time points. Consistent with the single items correlations of Table 5, in general we observe that the association of trust in public institutions with RWA and SDO differs according to the type of institution. In line with our hypotheses, party related institutions are positively associated with SDO in both measurement points. Somewhat surprisingly, authoritarianism shows first a negative association towards this institution, which then in time 2 turns to be non significant, a situation that we again relate to the political changes occurred between measurements in Chile. The lack of influence of SDO on governmental institutions could be related to that trust on the president is contained within the government factor, an individual figure that does not necessarily represent in itself the group hierarchy of SDO. Authoritarians on the other hand shift from a negative to positive association with trust on government in the same sense that with party related institutions, hence supporting the idea that RWA seems to be affected by the character or *content* of the institutions, contrasting with SDO that appears to attend to the structure or institutional *form*. Finally, and as expected, RWA shows a strong and consistent influence on armed institutions, whereas contrary to our expectations SDO presents a weak association and only in time 2. This is probably affected to the character of the armed forces factor, which contains institutions of differential hierarchy as the army and civil police. In fact, back to the correlation matrix

Table 6: Cross sectional models of trust in institutions on RWA, SDO and control variables



	Time 1					Time 2				
	RWA	SDO	Party Institutions	Gov. Institutions	Armed Institutions	RWA	SDO	Party Institutions	Gov. Institutions	Armed Institutions
RWA			-0.14**	-0.18**	0.13**			-0.01	0.09**	0.25**
SDO			0.13**	0.03	0.04			0.09**	-0.00	0.07*
Parent's educ. level	-0.10**	0.01	0.13**	-0.03	0.03**	-0.08**	0.01	0.10**	0.03	0.12**
Female (ref: Male)	0.12**	0.12**	-0.03	-0.03	0.04	0.11**	0.12**	-0.04	-0.06*	0.02
Political orientation (ref: Right-wing)										
Midle	-0.14**	-0.15**	-0.05	0.19**	-0.82**	-0.19**	-0.10**	-0.07*	-0.00	-0.10**
Left-wing	-0.44**	-0.39**	-0.06	0.36**	-0.18**	-0.45**	-0.28**	-0.11**	-0.07*	-0.23**
Independent	-0.16**	-0.17**	-0.05	0.16**	-0.06*	-0.16**	-0.12**	-0.04	0.07*	-0.05*
None	-0.25**	-0.29**	-0.25**	0.16**	-0.19**	-0.25**	-0.21**	-0.20**	-0.10**	-0.13**
Religious orientation (ref: Catholic)										
Evangelic	0.00	-0.01	-0.02	0.01	0.03	0.02	0.04	-0.01	0.01	0.02
Others	-0.07**	-0.04	-0.03	-0.02	-0.02	-0.07**	-0.01	-0.03	-0.04	-0.04
Agnostics	-0.10**	-0.03	-0.09**	-0.10**	-0.11**	-0.11**	-0.06*	-0.09**	-0.11**	-0.13**
Atheist	-0.13**	-0.06*	-0.06*	-0.01	-0.15**	-0.09**	-0.06*	-0.06*	-0.07**	-0.14**
No religion	-0.07**	-0.03	-0.11**	-0.033	-0.11**	-0.05	-0.01	-0.13**	-0.06*	-0.09**
R <sup>2</sup>	0.25	0.19	0.14	0.20	0.18	0.25	0.11	0.11	0.06	0.28

Model Fit  $\chi^2 (190, N=1762) = 984.68, p = .00; CFI = 0.93; RMSEA = 0.049$

$\chi^2 (190, N=1762) = 1192.75, p = .00; CFI = 0.91; RMSEA = 0.055$

Maximum likelihood estimation, standardized coefficients; \*p< 0.05, \*\* p<0.01.



of Table 5 we observe that the association of SDO and the army is larger than the one with the civil police.

Adding covariates to the model does not change the pattern of significant effects but only alter their size, and most of the effects are in line with previous evidence. The political orientation shows a differential association with governmental institutions when comparing both time points, whereby those left-wing oriented trust more in government in time 1 than in time 2. Left-wingers also trust less in armed forces, whereas religious individuals tend to trust more in all institutions than their non religious counterparts. As far as SDO and RWA are concerned, both are negatively related with left-wing political orientation, which could be at least partially explaining the shift in the association of RWA and trust in government when comparing both time measurements. Interestingly, parent’s lower educational levels and Catholicism relates to higher RWA.

In the last part of the analysis we were interested on the influence of RWA and SDO on trust in public institutions in a longitudinal perspective. With this aim we estimated a cross-lagged autoregressive model (CLAR) (Finkel, 1995) in order to determine the direction of the causal relations from RWA and SDO to trust in public institutions. Results are presented in Table 7.

**Table 7: Cross-lagged autoregressive model**

	T2 par	T2gov	T2arm	T2RWA	T2SDO
T1par	0.46** (16.47)			0.09** (3.01)	-0.01 (-0.16)
T1gov		0.34** (12.94)		-0.13 ** (-4.82)	-0.04 (-1.25)
T1arm			0.51** (21.06)	0.05 (1.84)	0.01 (0.21)
T1RWA	0.05 (1.34)	0.20** (5.26)	0.16** (5.10)	0.70** (25.79)	
T1SDO	0.10* (2.57)	0.09* (2.21)	0.13** (3.95)		0.61** (18.84)

**Model fit**

$\chi^2_{(363, N=1762)} = 1765.37, p = .00; CFI = 0.94; RMSEA = 0.047$

Maximum likelihood estimation, standardized coefficients; \*p< 0.05, \*\* p<0.01. Factor loadings fixed to be equal in both time points (weak measurement invariance).

Values in the diagonal of Table 7 are the autoregressive coefficients, under the diagonal the cross-lagged effects of RWA and SDO in time 1 on trust in public institutions in

time2, and over the diagonal the reversed cross-lagged effects of trust in public institutions in time1 over RWA and SDO in time 2. SDO shows significant cross-lagged effects over trust in whereas the reverse effects are not significant, supporting the hypothesis of SDO as determinant of trust in public institutions. For RWA the picture is less clear, varying according to the type of institution. Armed institutions are the only ones related to RWA in the expected direction. Party related institutions are in a reverse association with RWA, this is, individuals that trust in these institutions in time 1 are probably more authoritarian in time 2. Such association could be mediated by political orientation, since the ones trusting more in party institutions were the right-wing oriented, which were in power by the time of the second measurement point. Such finding again brings about the issue of the complex association between authoritarianism and trust on this kind of institutions in a period of drastic political changes. This same situation seems to be affecting the reverse causality between RWA and trust in government, since authoritarians of time 2 trust in government in time 2, but at the same time the ones who trusted the previous government are less authoritarian in time 2.

## 5. Summary & final remarks

Trust in public institutions is typically study from survey research comparing means of different groups or societies towards a number of institutions. This research aimed at introducing psychosocial explanatory concepts of individual differences in trust, as RWA and SDO. Under the general hypothesis that RWA and SDO predict higher levels of trust in institutions, we analyzed panel data first from a cross sectional perspective and later we estimated a longitudinal model predicting trust in three types of institutions: party-related, governmental and armed institutions. Even though we observed in general significant associations of RWA and SDO with most of the institutions, the size and stability of the effects varied on time and according to the type of institution. Whereas RWA consistently predicted trust in armed institutions, its links with party-related and governmental institutions changed strikingly between measurement points. We argued that these changes were probably related to the shift in the governmental coalition produced during the study, and idea supported by the association of political orientation, RWA and trust variables. SDO showed consistent association with party-related institutions, something that we advanced from our

hypotheses given the maintenance of the hierarchy status-quo associated to these organizations. Furthermore, SDO predicted trust in all institutions in a longitudinal framework, which in the case of RWA was again characterized by a series of reverse causality effects. In general, we observed that RWA was more sensitive to the situational character of the institution, something that we will further explore with the availability of new waves of the panel study.

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