Political Corruption and Social Trust –

An Experimental Approach

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Abstract

The main question addressed in this paper is how the great variation in the level of social trust between different countries can be explained? Most empirical research on this question has been based on survey data which has limits when it comes to capturing the causal mechanisms. Building on theories that point at the importance of trustworthy governmental institutions for creating social trust, two parallel experiments were conducted in two countries were the levels of corruption and social trust are very different. One group of 64 Swedish and one group of 82 Romanian undergraduate students responded to a number of scenarios in which another person's efforts to try to receive immediate assistance from an authority were described. These encounters varied within groups in terms of (1) whether or not a bribe was used in order to receive immediate assistance, (2) whether the other person or the official took the initiative to request/offer immediate assistance in exchange for the bribe, and (3) outcome in terms of whether immediate assistance was approved or declined as a result of the offer or demand for a bribe. Type of authority (police vs. doctor) was a between-groups factor. Subsequent to each scenario, participants' levels of various aspects of vertical and horizontal trust were measured. As hypothesized, the Romanian sample had reliably lower initial levels of horizontal trust than the Swedish sample. For both samples, however, the results showed the expected effects of bribe, initiator, and outcome on all dependent trust measures. The main results showed that bribe, initiator, and approved assistance decreased both vertical and horizontal trust. As such, the results supported the idea that trust in authorities influences the perceptions of the trustworthiness of others in general. Even though some of the effects were stronger for one sample than for the other, the influence of vertical trust on social trust was true for both the high- and the low-trusting sample.

What is social trust and why is it important?

   The main question addressed in this paper is simple, namely how can the great variation in the level of social trust between different countries be explained? There are several reasons for why this question is important. The first is the huge variation that, according to the World Value Study surveys, exists in the level of social trust between countries. For example, in countries such as Denmark, Norway and the Netherlands, around 65 percent of people state that they believe that "most other people can be trusted", while in countries such as Brazil, the Philippines and Turkey, only around 10 percent answer accordingly. For countries like the United States, Britain, Germany, Italy and Spain, roughly 35 percent approve to the statement.

   The second reason why we are interested in this question is that the level of social trust as measured in these surveys correlates positively with a number of political, social and economic conditions that we, like most people, regard as normatively desirable. For instance, countries with a high level of social trust have more economic growth, are more democratic and, if democracies, have better performing democratic institutions. A third reason is that social trust is also related to economic equality (Rothstein and Uslaner 2006). This implies that with a high level of social trust, the best of both worlds is possible – economic prosperity goes together with a reasonably fair distribution of resources. Additionally, if measures of the individual level are considered, this list of positive correlations between social trust and "good things" becomes quite long - education, personal happiness, health, income, tolerance towards minorities, etc (Uslaner 2002) While we are still lacking a great deal of knowledge about how the causality between social trust and all of these normatively desirable social conditions operate, the amount of "positive correlations" has spurred a great

increase in research on social trust in various disciplines such as social psychology, sociology, political science and economics.[1]

From a theoretical point of view, social trust has gained interest because problems known as social dilemmas. The essence of social dilemmas (also known or the problem of social traps, or the problem of collective action, or the problem of the provision of public goods) in non-cooperative game theory is the following: Agents acting from a utility-based script can reach radically different outcomes when it comes to the level of social/economic efficiency since lack of social trust implies difficulties in reconciling individual and collective rationality. Even though everyone realizes that cooperation would be more beneficial for all, cooperation can only come about when agents trust that (almost all) other agents will cooperate. The reason is well-known: the collective good that is going to be produced demands that a majority cooperates, but if the agents don't trust that the other agents will cooperate, there is no reason for them to make a cooperative move. One reason is that cooperation is costly to oneself. Another reason is that the collective good that may be produced demands that (almost) all agents choose to cooperate. Thus, even though the individual agent is willing to take the risk that the resources she pays for cooperation will be wasted, it still makes no sense to cooperate if one is not convinced that (almost) all other agents will cooperate because the good that as going to be produced still will not come into existence (for overviews see e.g., Ostrom 1998, Levi 1998)

It is thus only if the agents can trust that (almost) all the other agents will cooperate that they may reach a stable equilibrium that is beneficial for all. Lack of trust in the cooperation of others, the group (or society) can be situated in a social trap situation in which everyone is worse of than if they had chosen to cooperate. Since trust in other agents is hard to create once the other agents have defected (i.e., not cooperated), the group (or society)

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[1] To give a figure of this interest, the Social Science Citation Index scores 66 articles on social AND trust in 1995 and 339 in 2005.

can usually not escape the social trap even if all the agents would prefer to do so. For example, most agents in a corrupt system may well understand that they would all be better off if they stopped demanding and paying bribes. However, if they do not trust that the other agents also will refrain from corruption, it makes no sense to be the only agent acting honestly.

It should be noted that we are interested in social trust, not personal trust. The latter is based on personal knowledge of the other individual's moral orientation and/or her incentive structure. The amount of people one can have this information about is by nature very limited and as such the information would be irrelevant for explaining differences in the amount of beneficial cooperation in larger settings such as communities, large organizations and societies (Cook, Hardin & Levi 2005:2). Social trust (or generalized trust) is different from personal trust in that it can be understood as "mental models" of what can be expected when dealing with people that you do not have this personalized information about in the own society (Denzau & North 1994).

Social trust as an informal institution

Social trust can thus be seen as an example of what Douglass North has called the informal institutions in a society, which are established systems of beliefs about the behavior of others (North 1998b, cf. Denzau & North 1994). The effects of an informal institution such as social trust can be the following: In a group (or society) where the default position (the common knowledge) is that most people can generally be trusted, transaction costs will be lower and many forms of mutually beneficial cooperation will therefore take place that would not have been possible if social trust was lacking (Svendsen & Svendsen 2003). For example, in

economic relations, lack of social trust will limit transactions between economic agents to people of the same ethnic clan or tribe while excluding members of disfavored or unknown groups, thus hindering economic efficiency (Rose-Ackerman 2004, 194). It is in this way that social trust can be seen as an asset, a social capital (Coleman 1990). While networks are often also seen as a part of social capital, we want to underline that networks can not as such be social capital because it can not be an asset to be known by many people as an untrustworthy person, or to have contacts with many people whom you cannot trust. What makes networks and social contacts into assets depends on the degree to which the agents can trust each other (Rothstein 2005, ch. 3)

Inspired by recent work by Robert Aumann and Jacques Dreze, we also want to stress the "common" part of what is usually meant by "common knowledge" in this discussion. Aumann and Dreze label this "interactive rationality," by which they mean that one should take into account not only that all players may be rational, but that when deciding "how to play" all players must reason about the other players' strategies. This implies that social trust should be seen as a mutual phenomenon – the reason you may believe that most other people can be trusted is because you also believe that they think that people like you can be trusted. Thus, social trust should not be understood only as what the individual thinks about her own moral orientation (i.e., if she beliefs that most other people can be trusted), but also what she believes that "other people" think about her (and all other people's) trustworthiness. Thus, "I believe that you can be trusted if I also believe that you believe that I can be trusted". This has important implications because it shows the indeterminate nature of standard game theory that solely builds on the idea that individuals will act so as to maximize their own pay-offs. To quote Aumann and Dreze:

> if one is given only the abstract formulation of a game, one cannot reasonably hope for an expectation and optimal strategies. Somehow, the real-life context in which the game is played must be taken into account. The essential element in the notion of context is the mutual expectations of the players about the actions and expectations of the other players (2005, 9)

Thus, the outcome of social and economic interactions depends on how the "real-life context" has constructed the "mutual expectations," for example, the expectations of whether the other players can be trusted or not. As has been argued from the perspective of evolutionary game-theory, people can not be expected to base their decisions about "how to play" in situations like this on perfect information about the others, because such information is impossible to get. Instead they will try to make inferences from "the history of play" or others (Young 1998:5)

Seen from the empirical horizon, one can of course debate at length what type of social phenomena the general trust question used in the World Value Study surveys measures on this account. Based on the idea of common knowledge as "mutual beliefs" and the idea of "interactive rationality," we tend to agree with Jan Delhey and Kenneth Newton that when people answer if they believe that "most other people can be trusted," it is reasonable to interpret this as their evaluation of the moral standard of the society in which they live (Delhey and Newton 2004). Logically, if most people think that most people in their society will behave in an honest way, individual agents who enter into a transaction with someone unknown, have less reason to fear becoming a victim of treacherous or exploitative behavior. Therefore, cooperation between people who do not have personalized knowledge about each other will be more common in a society with a high level of social trust. Still, without having some additional reassurance against being exploited, high levels of social trust probably do not imply that people will entrust complete strangers with very valuable assets. Instead, it is more reasonable that in a society with a high level of social trust, people may buy a used car

from someone who does not belong to their ethnic tribe, hire a person to work in the small business who is not from one's own extended family, or rent out your house while on a sabbatical to someone who does not belong to the same academic network (or clan). It is true that in many cases, such cooperation is backed up by more formal institutions, such as the existence of impartial courts. However, previous research shows that economic agents in such high trust societies with a high degree of mutual and beneficial economic cooperation, hardly ever make use of these institutions or even think about using them (Farrell and Knight 2003). Rather, cooperation and honesty is simply taken for granted and in the rare occasions when agents behave dishonestly, other means than relying on formal institutions are used, such as for example spreading negative information of agents' untrustworthiness, social exclusion, etc.

Why history is not efficient

From a comparative politics perspective, there are thus good reasons, theoretical as well as empirical, for increasing our ability to explain the huge variation in social trust between different countries. We believe that this variation has a number of theoretical implications. First, the type of very general and functionalist theories that often have been used in economics and other disciplines will not work. It is simply not the case that societies automatically produce the type of formal or informal institutions needed for achieving optimal outcomes. On the contrary, we agree with North that "historical experience makes clear that efficient institutions are the exception," (North 1998a:494). For example, statements by Putnam et. al., such as, "norms such as those that undergird social trust evolve because they lower transaction costs and facilitate cooperation" (1993, 172) fly in the face that very many,

if not most, societies have failed to develop such norms (i.e., efficient informal institutions). There is thus no guarantee that "history is efficient" in the sense that societies will develop beneficial formal or informal institutions that can rescue them from ending up in more or less devastating social traps, sometimes even destroying the natural and other resources their own future existence depends on.[2] One case in point is research on corruption which shows that systemic corruption, which carries huge costs for the most agents involved, is a very stable equilibrium (Bardhan 1997). This is not only a result from deductive econometric research. As Uslaner (2005) has shown, the correlation between cross-national measures of corruption in 1980 and 2004 is very high, indicating that corruption can be seen as a self-enforcing state of affairs. Moreover, it is not the case that economic competition between rational agents will weed out inefficient institutions and replace them with more efficient ones: On the contrary, as Douglass North has argued:

> The rational choice paradigm assumes that people know what is in their self-interest and act accordingly, or at the very least that competition will weed out those who make incorrect choices and reward those who make correct choices. But it is impossible to reconcile this argument with the historical and contemporary record. (North 1998:493)

We thus agree with Gary Miller that the major lesson we should take from game theory is not about strategy or rationality, but an expectation of "dysfunctional results from individual rationality" (Miller 2000, for similar arguments see Hecther 1992, Lichbach 1997, Molander 1994). However, as the huge variation in the level of social trust between countries shows, the type of theory we need is not a general (more or less functionalist) one, starting from some universal notion of human behavior. The reason for this is simple, namely that such a theory can not explain the huge variation that exists (unless one argues that there are genetic variations in the ability to make rational choices or develop social trust). Similarly, the

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[2] For a vivid example, se Jareed Diamond's article in the New York Review of Books (2004:5) about the collapse of the Easter Islands.

type of theories we need are not the ones that explain why all societies end up with efficient (or dysfunctional) institutions. Rather, the theories we need are those that can explain the huge variation that exists. Or in plain language, why, for instance, is corruption in Denmark lower than in Nigeria, social trust in Finland so much higher than in Romania, and why are the informal social institutions that embed market relations in Mexico different from those in Canada? A theory managing to provide answers to such questions, we argue, should be grounded in some form of empirical knowledge about how the causal mechanism between social trust and X operates. Since there is no guarantee that individuals or groups, who need to establish an efficient informal institution such as social trust will do so, this theory can not rest on some functionalist notion of human behavior. Instead, it must be rooted in some kind of empirically verified micro-foundations of what causes individuals in different societies to develop (or not develop) social trust. We want to underline that with "causal mechanism" we do not mean the addition of yet another intervening variable. Instead, it is the "what makes it happen" question – a theory or idea about why variable X will change if variable Y also changes (Hage and Foley Meeker 1988, 1) – that needs to be answered.

In order to develop such a theory, as a starting point, we have conducted two parallel scenario experiments in which we try to determine the causal relation between trustworthy institutions and social trust. One of the experiments was carried out in Sweden with Swedish students and one in Romania with Romanian students. The choice of countries/cases reflects an ambition to analyze if the same causal mechanisms for explaining variation in social trust exist in a high trust/low corruption country (Sweden) as in a low trust/high corruption country (Romania). To give some numbers of these differences, the mean for the percentage of people answering "yes" to the question "Generally speaking, would you say that most people can be trusted" in the three waves of the World Value Study carried out between 1989 and 1999 was 60 percent for Sweden (which places the country at

the very top together with the other Nordic countries). In Romania only 16 percent agreed that "most people can be trusted" which is one of the lower scores. Moreover, according to the Corruption Perception Index issued by Transparency International, Romania scores a low 3.0 on their 0-10 scale (where 10 is least and 0 most corrupt), which ranks the country at place 85 of the 130 countries surveyed, just below Lebanon and Rwanda but above Armenia and Benin. Sweden scores 9.0 which places the country as the sixth least corrupted in the world, just above Switzerland and below Singapore. Thus, it seems fair to state that we are researching people who live in countries that are very different when it comes to both social trust and the level corruption.

Before we describe the experiments and the results, we will 1) give an overview of the different theories that so far have been put forward to explain variations in social trust, 2) present our own theory of why corruption, in addition to being detrimental to trust in government institutions, also causes low social trust, and 3) motivate our choice to use the experimental method to test this theory.

Explanations of variations in social trust in comparative politics

When the interest in social trust (and social capital) got underway in the early 1990s, the most commonly idea held forth was that the variation in this phenomenon was related to the viability of civil society (Putnam, Leonardi and Nanetti 1983). By active participation in voluntary associations, individuals learnt the noble art of overcoming social traps. In this society-centered "Tocquevillian" tradition, formal and informal associations were seen as creators of social capital because of their socializing effects on cooperative values. Thus, in soccer clubs, coral societies, parent-teacher organizations and similar associations, norms

such as social trust would flourish. The networks that were established in these associations increased social contacts and also led to increased social trust. The policy advice and recommendations coming out from this research urged individuals to "get involved" in social networks and associations.[3] While the evidence at the aggregate level clearly showed strong correlations between the level of social trust and the density and activity of civil society associations, this hypothesis has not fared well at the micro-level. While there are a great many studies that report that they have failed to show any micro-level evidence for the theory, that activity in voluntary associations increases social trust, we know of no study that have shown the opposite (Armony 2004, Herreros 2004; Claiborn and Martin 2000; Delhey and Newton 2003; Hooghe 2003; Kuenzi 2004; Letki 2004, Stolle 2001; Theiss-Morse and Hibbing 2005; Torpe 2003; Uslaner 2002; Whiteley 1999; Wollebæck and Selle 2002). To take one example, one recent large scale empirical study aiming at explaining variations in social trust, based on the World Value Study surveys and covering no less than sixty countries concludes that, "perhaps most important and most surprising, none of the four measures of voluntary activity stood up to statistical tests, in spite of the importance attached to them in a large body of writing, from de Tocqueville onwards" (Delhey and Newton 2004, p.27).

As a response to this problem, a number of scholars have started to look at another explanation for the variation of social trust, namely political institutions and the overall character of the state. In this "institutional theory of social capital," Rothstein argued that high levels of corruption would cause low social trust (Rothstein 2000, 2003). At the aggregate level, it could be shown that the correlation between subjective perceptions of the level of corruption in various countries (as measured by Transparency International) and the

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[3] Among the 143 suggestions for how to build social capital that are listed on the web site of the Saguro Seminar that was initiated by Robert D. Putnam are not only things like "say hello to a stranger", "avoid gossip" or "go to church...or temple...or walk outside with your children–talk to them about why its important." In addition, there are also suggestions like "join the local Elks, Kiwanis, or Knights of Columbus," "join a nonprofit board of directors," "sing in a choir," "attend PTA meetings," and (of course) "form or join a bowling team." (see http://www.bettertogether.org/150ways.htm).

level of social trust in the World Value Study surveys, was fairly high (*r* around 0.7). Using survey data from Sweden and the World Value Study, Rothstein and Stolle (2003, 2004) showed that social trust could be explained by trust in societies' "order institutions" (the police and the courts) as well as the perceived fairness and impartiality of the institutions responsible for the implementation of social policies. Delhey and Newton concluded from their above mentioned study that "government, especially corruption free and democratic government, seems to set a structure in which individuals are able to act in a trustworthy manner and not suffer, and in which they can reasonably expect that most others will generally do the same" (2004, 28). Using survey data from 29 European countries, Bjornskov (2004) concluded that a high level of social trust is strongly correlated with a low level of corruption. Using survey data from Sweden, Kumlin and Rothstein (2005) found that citizens who have contacts with selective welfare institutions (which they argue operate in more opaque and less impartial ways due to the problem of assessing individual needs) have less trust than individual who only have contacts with universal (i.e., non needs-assessing) welfare institutions. They also showed that this negative impact from "untrustworthy" government institutions on social trust remains statistically significant after controlling for a number of other variables, such as education, social class, income, employment status, political leanings, activity in voluntary associations, satisfaction with life, and interest in politics.

Some countries with historically high levels of social trust have experienced immigration from countries where social trust is much lower. Nannestad and Svendsen (2005) used this "natural experiment" to study what happens with the level of social trust among immigrants from low trust countries such as Turkey, Pakistan, and former Yugoslavia when they migrate to high trust Denmark. Nannestad and Svendsen concluded that it is essential that immigrants perceive that the administrative institutions in their new country treat them in a fair an even-handed way in order for social trust to increase. In addition, Nannestad and

Svendsen also showed that compared to these institutional variables, cultural variables like religious faith and the saliency of religion had very modest effects. It should also be noted here that social trust in the Scandinavian countries has not decreased despite these countries having become much more ethnically heterogeneous since the 1980s when the first surveys were carried out (Rothstein 2005, Larsen 2006). The case of Portugal also casts doubts on the hypothesis that ethnic homogeneity is necessary for high level of social trust since Portugal is a fairly homogeneous country but with a low level of social trust.

A great deal of research in social psychology has shown the importance of social trust for the outcome in social dilemma situations (Dawes and Messick 2000; Sally 1995). There is also a lot of research in social psychology showing that procedural fairness has a positive impact on the willingness for individuals to accept outcomes that are substantially negative (Lind and Tyler 1997). However, as De Cremer et. al. recently argued, "although behavioral consequences as a function of procedural fairness …seem logical from a theoretical point of view – amazingly little effort has been done to understand why such an effect could occur" (2005, 395). The new results they present in this study (based on scenario experiments) show that "fair procedures" increase cooperation. This seems to be based on the following causality: Institutions that are perceived to be fair increase group identity and affiliation so that the goal of the group merges with the goal of the individuals. "Being treated fairly and respectful will install among group members a feeling of inclusiveness" from which also follows increased social trust (De Cremer et. al 2005, 402). This is in line with the experimental results from the so called "horizontal trust game" that show that individuals who sense a higher affiliation to the group also trust more that others in the group will reciprocate pecuniary (Ostrom 2005, 74).

In sum, when it comes to explanations of how social trust is generated, there is very little evidence that speaks for the society-centered model which emphasizes historical

traditions of civil society activity. As the cases of immigrants in Scandinavia (and Portugal) show, there is also scant evidence that cultural or ethnic heterogeneity is detrimental to social trust. Instead, there is a fair amount of survey research indicating that the "quality of government" is a crucial factor for explaining social trust, which is complemented with some experimental research showing the importance of "fair procedures" for inducing group collaboration. The scenario experiments we have carried out intend to shed light on how the causal mechanism between trust in government (which we label *vertical trust*) and social trust operates.

Theory: Why corruption breaks social trust

It is not self-evident that people who live in corrupt societies should have low social trust. One could make the opposite argument, that in order to make life bearable in a very corrupt society, ordinary citizens have to develop a lot of social contacts that they could trust. However, this does not seem to be the case. Instead, they seem to develop mistrust, envy, pessimism and cynicism towards "people in general" (Csepeli et. al. 2004; Sztompka 1998). The type of trust they may develop is what Uslaner (2002) calls "personalized" trust which implies that one only trusts very close friends and relatives but are distrustful of people outside one's close circle. As Uslaner showed, this type of trust is actually the opposite of social trust which entails giving people you don't know the benefit of the doubt and having an optimistic outlook.

Our theory is that when it comes to establishing beliefs about social trust, people *make inferences* from the behavior they encounter from public officials. Since, as stated above, social trust can be interpreted as people's moral evaluation of the society in which they

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live, we argue that the behavior of public officials is one important device that people use when forming beliefs about to what extent people in general in their society can be trusted. In experimental non-cooperative game theory, this is known as "heuristics" which can be understood as the kind of clues people who lack perfect information use when they have to decide if they should or should not trust other people they have to deal with (cf. Ostrom 2005, 98). This *corruption-trust theory* consists of three interrelated causal mechanisms (adopted from Rothstein 2005, ch. 5):

1. **The inference from public officials**. If public officials in a society are known for being corrupt, citizens will believe that even people whom the law requires to act in the service of the public cannot be trusted. *They will therefore conclude that most other people cannot be trusted either.*

2. **The inference from people in general**. Citizens will be able to see that most people in a society with corrupt officials must take part in corruption in order to obtain what they feel their rightful due. *They will therefore conclude that most other people cannot be trusted.*

3. **The inference from oneself**. In order to act in such a society, citizens must, even though they may consider it morally wrong, also begin to take part in corruption. *They will therefore conclude that since they cannot themselves be trusted, other people cannot generally be trusted either.*

The causal mechanisms specified here imply that individuals make an inference from the information they have about how society works, which they to a considerable extent get from how they perceive the action of public officials This information does not need to be

correct, of course, but individuals have no other choice than to act on the only information to which they have access. The first mechanism implies that individuals reason something like this: "If it proves that I cannot trust the local policemen, judges, teachers, and doctors, then whom in this society can I trust?" The ethics of public officials become central here, not only with respect to how they do their jobs, but also to the signals they send to citizens about what kind of "game" is being played in the society. The two following mechanisms are logical outcomes of the first. People draw personal conclusions from the actions they observe in others – and they also draw conclusions in the other direction: "To know oneself is to know others." One illustration of how this works can be taken from a country report issued in 2002 by the United Nations Human Development Program about the situation in Bosnia-Hercegovina. After having reported results from a survey showing that about 70 percent of the people in Bosnia-Hercegovina believed that their local authorities as well as the international aid-organization in place (including the UN organizations) were "severely corrupt," the report made the following conclusion: "For the average citizen, therefore, it seems that corruption has broken down all barriers and dictates the rules of life. That is not very different from saying that they interpret life in terms of corruption" (UNDP 2002, 77). It seems to be a reasonable conclusion that individuals who "interpret life in terms of corruption," are not likely to trust other people in general.

The Experiments

Our choice of the experimental method should not be understood as an alternative to the large-n survey based methods we have referred to above. On the contrary, we see this research as a necessary complement to other methods (cf. McDermott 2003, Ostom 2005). The reason

for choosing the experimental method to test the theory above is standard, namely that the survey method simply can not show causation. Even though large samples makes it possible to control for a number of other independent variables, from standard survey methods we can not know if it is really the variable stressed that is the one that "makes it happen" (McDermott 2003,38). Especially when it comes to belief systems such as social trust, there can be an infinite number of reasons for the answers people give other than there are questions in the survey. In the experimental situation, however, using a rigorous protocol, it is possible for the researchers to manipulate the specific variables that they are interested in.

It needs to be stressed that what we are looking for here is a classic *unobservable* in the social sciences (such as for example "anticipation"). Unlike variables like, for instance, income, gender, education and age, we are looking for how one type of perception (the trustworthiness of street-level government institutions) may or may not influence another perception (trust in other people in general). To see the difficulty in capturing this empirically, recall the idea of "interactive rationality" above, which implies that the reason you may believe that most other people can be trusted is that you also believe that they think that people like you can be trusted, and so on.

The experiments we have carried out are so called "scenario experiments" (also known as "judgment experiments", Aronson et. al. 1998; cf. De Cremer et. al. 2005). These are experiments in which the participants are faced with hypothetical scenarios and state their opinions (judgments) about what takes place in the scenarios. However, unlike "impact experiments," participants are not asked to act on the "manipulated variable." The reasons for this choice of experimental method are two. The first is that this method is preferable if one wants to minimize the impact from the participants' everyday life experiences (Hoffman & Hurst 1990). Since Swedish students in their everyday life are very unused to being asked for bribes by public officials, while the opposite is true for Romanian students, the scenario

experiment is to be the preferred method in this case. The other reason is that the ethics rules of the Swedish Research Council (which financed this project) prohibits experiments in which the participants would be tempted to take or give something that could be considered as bribes if they are not informed of this in advance. The obvious problem here is that informing them beforehand would of course make the experiment useless for this research.[4]

The scenarios in the experiments describe situations that we deem realistic for students of the 21st century, namely that they are traveling in a country that is unknown to them and experience problems in which they need immediate assistance from a local authority. In constructing the scenarios, we consulted a number of popular travel guide books which give information of what one can expect in various countries in situations like the ones we describe.[5] In this particular situation, the scenario is constructed so that immediate assistance cannot be received since there are other people already waiting to receive assistance. Still, the participants in the scenario are informed that another person in the same situation who lives in this "unknown country" considers his own needs too severe to wait in line. The way we tap the effect of corruption on trust in the experiments can be summarized as follows: What will happen with people's social trust (and trust in the authorities) if this "other person" for some morally dubious reason should be offered immediate assistance and precede the participant (and all others) without waiting in line? The participants in the experiment are for example exposed to the experience that it is possible for people in this "unknown" country to bribe a policeman (or a public health doctor) to jump the queue at get

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[4] One idea we had was to send students to Swedish Public Health Clinics (vårdcentraler) and see if the personnel would accept bribes for making it possible to jump the queue. We were informed that we could do this if we first informed and got consent from the health care personnel that they would be bribed.

[5] To give an example, this is how the police force on the Yucatan Peninsula in Mexico is described in Lonely Planet's guidebook from 2002: "The police is hopelessly corrupt, do not contact them if not absolutely necessary. If you have to contact them for getting a statement for your insurance company that something has been stolen from you, expect to pay bribes. If the police stop you for speeding, just pay even if you are absolutely certain that you have not violated the speeding limit. If you don't pay, the risk is that they will plant illegal drugs in the backseat of your car and then you are in real trouble. Women who get sexually assaulted should not go to the police because there is a clear risk that they will see the perpetrators in uniform at the police station."

immediate help. Or they can experience that the policemen/doctors demand bribes for offering immediate assistance. The outcome can also vary, meaning that the offer of a bribe is declined by the doctor/policeman, or the official's demand of a bribe is refused by the person living in the "unknown country".

It is important to note that we do not think that a situation like the one described affects people's levels of social trust if experienced where people already have an established system of beliefs to what extent others can be trusted. Thus, when it is "common knowledge" to what extent others can be trusted, it is unlikely that isolated events such as the one described here will have any impact on social trust in the social setting where the person lives (Uslaner 2002). However, should the situation take place in an unknown country where people are uncertain about what is "common practice" in situations like the ones we use in the experiments, we believe that an event like this will serve as an "heuristic" to how the informal institutions operate in this unknown society. We also believe that single events, like the experience of corrupt practices, can be important when it comes to establishing distrust. As Russell Hardin has argued, trust and distrust are asymmetric since a single encounter can make people loose trust in and individual or institution while it probably takes much more than an isolated event to establish trust (Hardin 2002:90f)

In the experiment, we manipulate different factors in order to capture how trust and distrust are established. First, since *not* receiving immediate assistance can have different consequences dependent on what kind of assistance is called for, we assume that type of need is important for people's trust. For instance, if the other person should receive immediate assistance, we expect that people's trust will decrease less if the person is in immediate need of assistance because of a severe illness than because he just is in a hurry.

Secondly, since according to our theory, trust in others is assumed to be negatively correlated with corruption, we expect that being asked to pay a bribe in order to

receive immediate assistance will have a negative effect not only on trust in the authorities but, following our corruption-trust theory, also on people's social trust.

Thirdly, we expect that it is important for people's trust whether it is the authority or the person in need who takes the initiative to jump the queue (with or without corruption). Here, we expect different effects on social trust and trust in the authorities. For instance, should the authority take the initiative (e.g., demand a bribe), trust in the authorities should be expected to decrease more than social trust. On the other hand, should the person in need of assistance take the initiative, social trust should be expected to decrease more than trust in the authorities.

Another element of potential importance is the outcome of the situation, that is, if the demand for or offer to bribe are successful. We analyze if the three factors described above are of equal importance should the person's request to receive immediate assistance (e.g., in exchange for a bribe) *not* be approved? If such a request is declined, trust in the authorities is expected to increase since such an outcome signals that government officials are honest and fair. For the same reason, social trust is expected to decrease less as an effect of bribe when the request from the doctor/policeman is declined compared to when it is approved.

In sum, the design of the scenario implies that four factors were assumed to be important for social trust when people experience that another person in need of assistance attempts to receive immediate assistance without having to wait in line. These factors were (i) type of authority (policeman/doctor), (ii) bribe or no bribe, (iii) who initiates corruption (the other person or the police/doctor, and (iv) outcome (successful or not).

The experiment in Sweden was carried out at Göteborg University in Göteborg and the experiment in Romania was carried out in the Babes-Bolyai University in Cluj Napoca.

In the Swedish sample 64 undergraduates at different educational programs participated in the experiment. Thirty-three were men with a mean age of 26.2 years (*SD* = 4.2) and 31 were women with a mean age of 29.8 years (*SD* = 10.9). Participants were promised SEK 50 (approximately US$ 6.5) in return for their participation, and were randomly assigned to one of two between-subjects conditions. One group consisted of 14 male and 18 female participants. In the other group, 19 were male and 13 female participants. In the Romanian sample 82 undergraduates at different educational programs participated in the experiment. Thirty-eight were men with a mean age of 21.7 years (*SD* = 1.4) and 44 were women with a mean age of 21.5 years (*SD* = 2.1). Participants were promised ROL 200 000 (approximately US$ 6.5) in return for their participation, and were randomly assigned to one of two between-subjects conditions. Both groups consisted of 19 male and 22 female participants. The protocol was translated from Swedish into Romanian by Kristina Iosivas, a Romanian undergraduate student at Göteborg University, and we are grateful for the assistance from her for carrying out the experiment in Romania.

Procedure and Materials

In Sweden, participants were contacted through telephone calls from an available pool of participants. They were invited to the laboratory to participate in a study about decision making. On arrival to the laboratory, participants were met by a male experimenter and seated in private booths where they were asked to complete the experimental materials.

In Romania, contacts were taken with the Babes-Bolyai University through telephone calls from Sweden. In a subsequent visit to Cluj Napoca, data was collected during two days at the Babes-Bolyai University.

The experimental material consisted of a questionnaire including ten pages. On the first page, participants were instructed that they on the following pages would be asked to complete two tasks. The first task was to respond to a number of statements regarding to what extent they believed other people can be trusted. The second task was to imagine that they were on a journey in a foreign city in an unknown country, and to respond to a number of questions in relation to different scenarios that would be described. Lastly on the first page, participants were requested to indicate their age and sex and were informed that their responses in the questionnaire were anonymous.

In order to get a more complete and nuanced measure of participants' degree of social trust, we did not confine to the single standard question used in the World Value Study surveys. Instead, participants completed a slightly revised version of a more elaborated trust scale developed by Yamagishi (e.g., Yamagishi & Sato, 1986). The scale consists of the following six items measuring social trust: "Most people are basically honest", "Most people are trustworthy", "Most people trust a person if the person trusts them", "Most people are basically good-natured and kind", "Most people trust others", and "Generally, I trust others". The following five *caution items* were also included: "People always think about their own gain (*)[6]", "In today's society, if you are not careful, people will use you (*)", "In today's society, we do not have to worry about being used by someone", "Most people really do not like to make the effort to help others (*)", and "If we assume everyone has the capacity to be malicious, we will not be in trouble (*)". Participants responded to the items on 7-point Likert scales where 1 corresponded to "Strongly disagree" and 7 corresponded to "Strongly agree".

On each of the eight following pages in the questionnaire participants read the following scenario (here translated from Swedish and Romanian):

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[6] Participants' responses to items marked with (*) were reversed in the analyses. Thus, the higher the participants' values on the trust scales, the greater trust participants put in others and society.

"Imagine that you are in a foreign city in an unknown country. You wake up one morning and feel very ill and in need of a doctor's assistance. In the elevator to the doctor's surgery you meet a man who is also on his way to the doctor. The man tells you that he also feels very ill. When you arrive at the doctor's surgery you notice that there are already several people in the waiting room. You go up to the receptionist and thereafter sit down in the waiting room. You can see that the man from the elevator approaches the doctor and says that he feels very ill. The doctor says that the man still has to wait in line. The man continues to appeal to the doctor."

The above-mentioned first paragraph of the scenario was identical for each of the eight scenarios. The second paragraph varied the three within-subject factors *bribe*, *initiator of offering/requesting immediate assistance*, and *outcome*, respectively. Thus, whereas a bribe was used in order to receive immediate assistance from the authority for half of the scenarios, a bribe was not used for the other half of scenarios. Similarly, for half of the scenarios, the man from the elevator (henceforth referred to as *the elevator man*) took the initiative, and for the other half, the authority took the initiative. Finally, for half of the scenarios, the elevator man's request for immediate assistance was approved and, thus, he received immediate assistance, and for the other half, the elevator man's request was declined, and, thus, he had to wait in line. As an example, in the condition where a bribe was used in order to receive immediate assistance, the elevator man was the initiator, and the request was approved, the scenario read:[1] "The man from the elevator takes the doctor aside but you can still hear him whisper and offer the doctor the equivalence of SEK 500 *(for the Swedish experiment and Euro 50 for the Romanian)* (approximately US $ 66) to receive immediate assistance. The doctor accepts the offer. The man from the elevator receives immediate assistance."

Type of authority was the between-subjects factor. The authority was either a doctor (as in the scenario described above) or a police officer. For groups where the authority was a police officer, the first paragraph of the scenarios read: "Imagine that you are in a foreign city in an unknown country. One morning someone has broken into your car. You go to the police station to report the break-in. You are rushed. In the elevator to the reception, you meet a man who is also about to report a car break-in. The man tells you that he is also rushed. When you arrive at the reception you notice that there are already several people in the waiting room. You go up to the receptionist and sit down in the waiting room. You can see that the man from the elevator approaches a police officer and says that he wants to report a car break-in and that he is rushed. The police officer says that the man still has to wait in line. The man continues to appeal to the police officer."

Subsequently to each scenario, participants were asked to answer a number of questions on 7-point Likert scales. The first question asked participants how fair or unfair they perceived the outcome (e.g., that the elevator man received immediate assistance). The endpoints of the scale were defined as "Very unfair" and "Very fair". The following six questions asked respondents how high or low trust they put in (1) the authority's way of handling his work, (2) the authority's way of helping people, (3) the authority in general (i.e., doctors or police officers in general) in this city, (4) the authority as a fellow person, (5) the elevator man, and (6) people in general in this city, respectively.

Completing the questionnaire required about 30 minutes, after which participants were paid and debriefed.

Results

Initial trust levels

For the initial trust levels, the analyses on participants' responses to Yamagishi's trust scale revealed a satisfactory level of reliability for the six items measuring social trust (Cronbach's α = .803) and an acceptable level of reliability for the five items measuring caution (Cronbach's α = .689). To test the effects of our between-subjects factors as well as sex of participants, means of the items measuring *social trust* and *caution*, respectively, were calculated and submitted to an analysis of variance (ANOVA). Crucial for our aim of testing the effects of *outcome*, *initiator*, and *bribe* on trust in both high-trust and low-trust cultures, was a significant effect of *culture* (Swedish vs. Romanian). We also included the between-subject factor *type of authority* (doctor vs. police) to ensure that the two between-subjects groups did not differ in their general propensity to trust others. Similarly, since the number of men and women were not equally balanced between the two groups, the analysis also included *sex* as a factor. Thus, a 2 (culture: Swedish vs. Romanian) × 2 (type of authority: doctor vs. police) × 2 (sex: male vs. female) × 2 (item: trust vs. caution) ANOVA with repeated measures on the last factor was performed on participants' mean ratings on Yamagishi's trust scale.

The main effect of the *trust-caution item* was significant, $F(1, 138) = 76.02$, $p < .001$, $\eta_p^2 = .36$, and indicated that participants generally scored higher on the items measuring social trust ($M = 4.42$, $SD = 1.09$) than on items measuring caution ($M = 3.62$, $SD = 1.12$). The significant main effect of *culture*, $F(1, 138) = 63.44$, $p < .001$, $\eta_p^2 = .32$, was qualified by a significant two-way interaction between *culture* and *trust-caution item*, $F(1, 138) = 4.87$, $p < .05$, $\eta_p^2 = .03$. As hypothesized, the Swedish sample scored higher on the scale measuring social trust ($M = 4.91$, $SD = 1.03$) than did the Romanian sample ($M = 4.03$, $SD = .98$), and

the difference between the samples was even larger for the scale measuring caution ($M = 4.33$, $SD = .93$ for the Swedish sample; $M = 3.06$, $SD = .93$ for the Romanian sample). No other effects in the analysis were significant. Thus, important for the main aim of the present research, the differences found between the two samples in initial trust levels permit us to treat the Swedish sample as a high-trust culture and the Romanian sample as a low-trust culture, which is in line with the finding in the three World Value Study surveys mentioned above. Furthermore, participants assigned to the doctor condition in the scenarios did not differ in initial trust from participants assigned to the police condition.

Vertical trust[7]

Several analyses of variance (ANOVAs) with repeated measures on the within-subject factors *outcome* (approved vs. declined), *initiator* (the authority vs. the elevator man), and *bribe* (bribe vs. no bribe) and *culture* (Swedish vs. Romanian) and *type of authority* (doctor vs. police) as between-subjects factors were performed to test the hypotheses regarding effects on vertical and social trust. When the ANOVAs revealed significant interaction effects, those were illuminated with follow-up Bonferroni-corrected *t*-tests at $p = .05$, controlling for multiple comparisons by correcting the probability level (α) for making Type I errors. When the interaction effects regarded within-subject factors only, paired-samples *t*-tests were used. When the interaction effects included both between-subjects and within-subject factors, both paired-samples *t*-tests and independent samples *t*-tests were used. In the following, those are all referred to as follow-up *t*-tests.

Participants' ratings on the three scales measuring different aspects of vertical trust (i.e., trust in (i) the authority's way of handling his work, (ii) the authority's way of

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[7] Participants' sex was included as a factor in all initial ANOVAs. No significant main effects of sex were found in any of the analyses. Apart from a significant three-way interaction between sex, outcome, and initiator, $F(1, 135) = 4.84$, $p < .05$, $\eta_p^2 = .04$, on participants' trust in the elevator man, no interaction effects including sex were found. Thus, since no substantial effects of sex were found and that our objective did not include sex, the analyses that we report excluded sex as a factor.

helping people, and (iii) the authority as a fellow person) showed high internal consistency (in the eight within-subject conditions, Cronbach's αs were .72, .85, .74, .85, .84, .90, .72, and .83, respectively). Therefore, means of participants' ratings on these scales were used in the analysis on the effects of the manipulated factors on vertical trust in the specific authority described in the scenarios. Table 1 presents these mean ratings.

Table 1 about here

A 2 (culture: Swedish vs. Romanian) × 2 (type of authority: doctor vs. police) × 2 (outcome: approved vs. declined) × 2 (initiator: the authority vs. the elevator man) × 2 (bribe: bribe vs. no bribe) ANOVA with repeated measures on the three last factors was performed on participants' ratings of vertical trust. The main effect of type of *authority* was significant, $F(1, 140) = 5.81$, $p < .05$, $\eta_p^2 = .04$. Overall, participants in the scenarios with doctors showed higher trust to the authority ($M = 3.93$) than did participants in the police scenarios ($M = 3.68$). Although not expected, this is in line with research indicating that doctors are generally perceived as more trustworthy than are police officers (Holmberg & Weibull, 2004).

As hypothesized, the main effect of *outcome* was significant, $F(1, 140) = 89.09$, $p < .001$, $\eta_p^2 = .39$. This effect indicated that vertical trust was higher when the request was declined ($M = 4.23$) than when it was approved ($M = 3.36$). This effect was qualified by a significant two-way interaction effect between *outcome* and the between-subjects factor *type of authority*, $F(1, 140) = 6.56$, $p = .01$, $\eta_p^2 = .04$, and a significant three-way interaction between *outcome*, *type of authority*, and *culture*, $F(1, 140) = 8.47$, $p < .01$, $\eta_p^2 = .06$. The follow-up *t*-tests revealed first and foremost that the hypothesized effect of outcome on vertical trust was significant in both cultures and in both type of authority groups. However,

in the Romanian sample, there was also an effect of *type of authority* when the request was approved, suggesting that trust in the doctor was then higher (M = 3.61) than trust in the police (M = 2.91).

The main effect of *initiator* was significant, $F(1, 140) = 253.19$, $p < .001$, $\eta_p^2 = .64$, and indicated as hypothesized that vertical trust was lower when the authority was the initiator (M = 3.34) compared to when the elevator man was the initiator (M = 4.26). The three-way interaction between *initiator*, *culture*, and *type of authority* was significant, $F(1, 140) = 5.52$, $p < .05$, $\eta_p^2 = .04$. However, the effect was so weak that in the follow-up *t*-tests the only significant mean comparisons were those referring to the main effect of initiator, which were highly significant in both cultures and both type of authority groups.

The significant main effect of *bribe*, $F(1, 140) = 472.75$, $p < .001$, $\eta_p^2 = .77$, indicated, as expected, that vertical trust was higher when no bribe was used (M = 4.54) compared to when a bribe was used (M = 3.07). This effect was qualified by a significant two-way interaction effect between *bribe* and the between-subjects factor *type of authority*, $F(1, 140) = 6.81$, $p = .01$, $\eta_p^2 = .05$. The follow-up *t*-tests revealed that the difference in vertical trust between the two groups was not significant when a bribe was used (M = 3.10 for doctor as authority and M = 3.01 for police as authority), but when a bribe was not used, vertical trust was significantly higher for the doctor (M = 4.75) than for the police (M = 4.32).

The two-way interaction effect between *outcome* and *initiator* was significant, $F(1, 140) = 189.95$, $p < .001$, $\eta_p^2 = .58$. The follow-up *t*-tests showed that when the elevator man was the initiator and requested assistance, vertical trust was significantly higher when the request was declined (M = 5.14) compared to when it was approved (M = 3.38). Similarly, when the authority was the initiator and the request was declined, vertical trust was significantly lower (M = 3.32) compared to when the elevator man was the initiator (M = 5.14). However, when the request was approved, vertical trust did not differ dependent on

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whether assistance was offered by the authority ($M = 3.35$) or requested by the elevator man ($M = 3.38$). Similarly, when the authority was the initiator, vertical trust did not differ dependent on outcome ($M = 3.35$ for approved request; $M = 3.32$ for declined request).

The two-way interaction between *outcome* and *bribe* was also significant, $F(1, 140) = 128.18$, $p < .001$, $\eta_p^2 = .48$. The follow-up *t*-tests showed that, irrespective of whether the request was approved or declined, vertical trust was significantly higher when no bribe was offered compared to when a bribe was offered. However, whereas vertical trust was significantly higher in scenarios where a bribe was used and the request declined ($M = 3.85$) compared to when a bribe was used and the request approved ($M = 2.26$), there was no difference in vertical trust in the no-bribe-conditions ($M = 4.60$ for declined request; $M = 4.46$ for approved request). This effect was qualified by a significant three-way interaction between outcome, bribe, and culture, $F(1, 140) = 7.94$, $p < .01$, $\eta_p^2 = .05$. However, the effect was so weak that in the follow-up *t*-tests, the only significant mean comparisons were those referring to the two-way interaction between outcome and bribe. The two-way interaction effect was also qualified by a significant three-way interaction between *outcome*, *bribe*, and *type of authority*, $F(1, 140) = 9.23$, $p < .01$, $\eta_p^2 = .06$. Follow-up *t*-tests showed that in the doctor condition, there was no effect of outcome when a bribe was not used, whereas participants in the police condition showed higher vertical trust in the no-bribe condition where the request was declined ($M = 4.61$) compared to where it was approved ($M = 4.04$).

The two-way interaction between *initiator* and *bribe* was also significant, $F(1, 140) = 200.95$, $p < .001$, $\eta_p^2 = .59$. The follow-up *t*-tests showed that, irrespective of whether the authority or the elevator man was the initiator, vertical trust was significantly higher when no bribe was offered compared to when a bribe was offered. However, whereas vertical trust was significantly higher in scenarios where a bribe was offered by the elevator man ($M = 3.92$) compared to when a bribe was requested by the authority ($M = 2.18$), there was no

difference in vertical trust in the no-bribe-conditions (M = 4.50 when authority was the initiator; M = 4.59 when the elevator man was the initiator). The three-way interaction between *initiator*, *bribe*, and *type of authority* also reached significance, $F(1, 140) = 5.17$, $p <$ .05, η_p^2 = .04. However, the effect was so weak that in the follow-up t-tests, the only significant mean comparisons were those referring to the two-way interaction between initiator and bribe.

Finally, the hypothesized three-way interaction between *outcome*, *initiator*, and *bribe* was also significant, $F(1, 140) = 85.00$, $p < .001$, η_p^2 = .38. In line with what was expected, this effect showed that vertical trust was highest when the elevator man offered the authority a bribe in order to receive immediate assistance, and this offer was turned down by the authority. The lowest vertical trust was observed when the authority offered the elevator man immediate assistance in exchange for a bribe and the elevator man accepted the offer (see Table 1).

In sum, the results of the ANOVA on participants' vertical trust verified the hypothesized effects of outcome, initiator, and bribe. It is also important to note that the effects with no exceptions were the same in both the high-trust and the low-trust culture. Thus, participants' initial "true" levels of trust did not matter for the effects of outcome, initiator, and bribe.

One important question relates to whether participants infer the trustworthiness of the type of authority in general on the basis of the specific encounters they observe. One way to test this is to analyze whether trust in the type of authority in general is affected similarly by the independent factors as trust in the specific authority described in the scenarios. In Table 2, means of the second measure of vertical trust - trust in the authority (i.e., police officers or doctors) in general - are presented.

A closer look at Tables 1 and 2 reveals two things. First, participants' vertical trust towards the specific authority described in the scenarios, generalize to their vertical trust in the type of authority in general in the "unknown country". Thus, the mean differences between the different scenarios are similar in both tables. Second, the differences are less pronounced for vertical trust in the type of authority in general (Table 2) than for vertical trust in the specific authority (Table 1).

These patterns were confirmed in a parallel 2 (culture: Swedish vs. Romanian) × 2 (type of authority: doctor vs. police) × 2 (outcome: approved vs. declined) × 2 (initiator: the authority vs. the elevator man) × 2 (bribe: bribe vs. no bribe) ANOVA with repeated measures on the three last factors. All main effects from the analysis on trust in the specific authority were replicated. The two-way interaction effect between the factors *bribe* and *type of authority* did not reach significance due to the less pronounced differences. Otherwise, all two-way interaction effects were replicated. Moreover, the three-way interaction effects in the previous ANOVA that were too weak for a reliable interpretation did not reach significance in the ANOVA on authority in general. Thus, the only significant effect of culture in the ANOVA on trust in authority in general was that, in contrast to the ANOVA on trust in the specific authority, the four-way interaction effect between *culture*, *type of authority*, *initiator*, and *bribe*, $F(1, 139) = 5.07$, $p < .05$, $\eta_p^2 = .04$, was significant. Interestingly, only one mean comparison was significant between the two cultures when looking at the different combinations of initiator and bribe: When the authority took the initiative without offering a bribe, trust in doctors in general was significantly higher in the Swedish sample ($M = 5.11$) than in the Romanian sample ($M = 4.44$). Trust in the police showed no such differences ($M = 4.14$ for the Swedish sample; $M = 4.11$ for the Romanian sample). Furthermore, both samples responded similarly when a bribe was offered or requested.

Table 2 about here

Social trust

From the previous two ANOVAs, two major conclusions can be drawn. Trust in the specific authority was strongly affected by the manipulated factors in line with what was expected. This means that participants, on the basis of the observed encounter between the elevator man and the specific authority, put lower trust in the authority when he (i) accepted (as compared to not accepted) a bribe, (ii) offered (as compared to not offered) a bribe, and (iii) gave immediate assistance to the elevator man (as compared to leaving the elevator man waiting in line). More interestingly, we believe, is that these effects were the same in high-trusting low corruption Sweden and low-trusting high corruption Romania. Furthermore, it is important to note that it seems as if the effects were not isolated to the specific situation described. Instead, as expected, *participants seemed to infer the trustworthiness of authorities in general based on their observations of what took place in the scenarios.* Thus, the effects of the manipulated factors not only affected participants' judgments of the trustworthiness of the authority that they observed, but also participants' judgments of to what extent authorities in general in the "unknown" society could be trusted. One question to be answered is to what extent trust in other people in the society also was affected by the manipulated factors. Therefore, the participants also rated to what extent they believed that other people in general in this "unknown city/country" could be trusted. Should trust in other people in general in this unknown city/country, that clearly are without responsibility for what is happening in the specific encounters, be influenced by the manipulated factors, this would suggest the existence of a causal relationship from trust in government officials to trust in "people in general" in the society where the corrupt behavior is taking place.

Table 3 provides means of participants' trust in other people in general in the unknown city related to the manipulated variables. This measure is the main measure of social trust, given that it relates to trust in people who are clearly not involved in the situations described. Instead, this measure should be regarded as the extent to which trust in others in general is influenced by trust put in the people involved in the situation (i.e., the authority and the elevator man[8]). A 2 (culture: Swedish vs. Romanian) × 2 (type of authority: doctor vs. police) × 2 (outcome: approved vs. declined) × 2 (initiator: the authority vs. the elevator man) × 2 (bribe: bribe vs. no bribe) ANOVA with repeated measures on the three last factors was performed on these ratings. Again, the main effect of *culture* was significant, $F(1, 140) =$

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[8] Participants also rated their degree of trust in the elevator man. We hypothesized that trust in the elevator man would also be affected by the manipulations in the same way as trust in authority was affected. Thus, we expected horizontal trust to decrease when a bribe was present and when immediate assistance was approved as an effect of corrupt behavior. A parallel ANOVA was conducted on participants' trust in the elevator man. The results replicated the main effects of culture, outcome, and bribe. Generally, the effects in the ANOVA on the elevator man were somewhat stronger than in the ANOVA trust in people in general.

In addition to these effects, the two-way interaction effect between *outcome* and *initiator*, $F(1, 139) = 34.04$, $p < .001$, $\eta_p^2 = .20$, was significant. The follow-up *t*-tests revealed that all relevant mean differences between these two factors were significant. Thus, as revealed by the unexpected main effect of outcome, irrespective of initiator, trust in the elevator man was always higher when immediate assistance was declined compared to when immediate assistance was approved. Similarly, irrespective of outcome, trust in the elevator man was always higher when the authority and not the elevator man was the initiator. The interaction effect is explained by the fact that the highest trust in the elevator man was observed when the authority was the initiator and immediate assistance was not received. Interestingly, the three-way interaction between *culture*, *initiator*, and *outcome* was also significant, $F(1, 139) = 5.00$, $p < .05$, $\eta_p^2 = .04$, and indicated that the difference between the two samples in trust in the elevator man was no longer significant in the condition where the authority was the initiator and the elevator man turned the offer down.

The main effect of *initiator* was also significant, $F(1, 139) = 103.90$, $p < .001$, $\eta_p^2 = .43$, and indicated that trust in the elevator man was higher when the authority was the initiator ($M = 3.99$) compared to when the elevator man was the initiator ($M = 3.30$). This effect was qualified by a significant two-way interaction effect between *initiator* and *sample* $F(1, 139) = 10.64$, $p < .001$, $\eta_p^2 = .07$. Follow-up *t*-tests indicated that both samples showed higher trust in the elevator man when the authority and not the elevator man was the initiator, and that this effect was stronger for the Romanian sample than for the Swedish sample. The two-way interaction effect between *initiator* and *type of authority* was also significant, $F(1, 139) = 5.08$, $p < .05$, $\eta_p^2 = .04$. The follow-up *t*-tests revealed that when the authority was the initiator, participants in the doctor condition showed higher trust in the elevator man ($M = 4.21$) than did participants in the police condition ($M = 3.77$). However, when the elevator man was the initiator, there was no difference between the type of authority groups.

The two-way interaction effects between *outcome* and *bribe*, $F(1, 139) = 73.38$, $p < .001$, $\eta_p^2 = .35$, and between *initiator* and *bribe*, $F(1, 139) = 60.01$, $p < .001$, $\eta_p^2 = .30$, were both significant. As hypothesized, these effects were qualified by the significant three-way interaction effect between *outcome*, *bribe*, and *initiator*, $F(1, 139) = 38.72$, $p < .001$, $\eta_p^2 = .22$. Participants' trust in the elevator man was highest when the authority offered the elevator man to receive immediate assistance in return for a bribe, and this offer was turned down by the elevator man. Participants showed the lowest degree of trust in the elevator man when he managed to bribe the authority to receive immediate assistance. The follow-up *t*-tests revealed that means for these two scenarios differed significantly from means from the other scenarios. The three-way interaction effect between *initiator*, *bribe*, and *culture* was also significant, $F(1, 139) = 8.53$, $p < .01$, $\eta_p^2 = .06$. However, the effect was so weak that in the follow-up *t*-tests, the only significant mean comparisons were those referring to the two-way interaction between initiator and bribe.

16.82, $p < .001$, $\eta_p^2 = .11$, indicating that the Romanian sample showed lower degree of social trust ($M = 3.71$) than did the Swedish sample ($M = 4.42$). The main effect of *outcome* was also significant, $F(1, 140) = 12.48$, $p < .001$, $\eta_p^2 = .08$, indicating a higher degree of trust in people in general when the elevator man did not receive immediate assistance ($M = 4.10$) compared to when he did ($M = 3.94$).

The main effect of *bribe* was also significant, $F(1, 140) = 14.35$, $p < .001$, $\eta_p^2 = .09$. When no bribe was present, social trust was higher ($M = 4.09$) than when a bribe was present ($M = 3.95$). More interestingly, the interaction between *outcome* and *bribe* was significant, $F(1, 140) = 29.03$, $p < .001$, $\eta_p^2 = .17$. The follow-up *t*-tests showed that social trust was significantly lower when immediate assistance was received thanks to a bribe ($M = 3.76$) than when a request for or an offer of a bribe was turned down ($M = 4.13$). The tests also revealed that social trust was higher when immediate assistance was approved without a bribe ($M = 4.12$) as compared to because of a bribe ($M = 3.76$).

The three-way interaction effect between *culture*, *initiator*, and *outcome* was also significant, $F(1, 140) = 9.00$, $p < .01$, $\eta_p^2 = .06$. This effect indicated that when immediate assistance was approved, there was no difference whether the authority or the elevator man was initiator in any of the samples ($M = 4.35$ for authority and $M = 4.30$ for elevator man in the Swedish sample; $M = 3.65$ for authority and $M = 3.63$ for elevator man in the Romanian sample). However, when immediate assistance was declined, social trust among the Romanian sample was significantly higher when the authority was the initiator ($M = 3.88$) than when the elevator man was the initiator ($M = 3.68$), whereas there was no such difference among the Swedish sample ($M = 4.45$ for authority and $M = 4.57$ for elevator man).

Finally, the three-way interaction effect between *type of authority*, *initiator*, and *outcome* was significant, $F(1, 140) = 6.62$, $p < .05$, $\eta_p^2 = .04$. However, the effect was so weak that in the follow-up *t*-tests, no mean comparisons were significant.

In sum, the analysis on trust in people in general showed that participants made inferences of the trustworthiness of other people, not involved in the situation, on the basis of the observed encounters between an authority and another person. Furthermore, the basic effects were the same for both the Swedish and the Romanian samples.

Table 3 about here

Conclusion: *"The Fish Rot from the Head Down"*

Imagine that you are out traveling in an "unknown city" and lose your wallet that contains some personal things and a reasonable sum of money (USD 100?). So, the next day you go to the police station and ask if anyone has handed in your wallet, hoping that people in this "unknown city" are of the honest type. According to a much-talked about (but fairly unscientific) experiment that was carried out in the mid-1990s, the chance that the police will have your wallet varies greatly between different European countries.[9] Moreover, this variation seems to co-vary with the level of generalized trust as measured by the World Value Study surveys. The chance that someone would have handed in your wallet to the police seems to be much greater in the Nordic countries than in a country like Turkey or Romania. However, this variation does not necessarily have anything to do with the degree of personal trustworthiness or honesty among the population. Instead, the fact that people do not hand in a found wallet to the police may be that they are convinced that the police in their country is thoroughly corrupt and would keep the money. And they may then also be convinced that "everyone else" has the same belief about the police and thus "people in general" would not

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[9] This "Lost Wallet Experiment" was reported in *The Economist* June 22, 1996.

hand in a wallet they found to the police. Such an interpretation would be in line with our findings – our result may be interpreted as a support for the German proverb: "Der Fisch stinkt von Kopf her" (The Fish Rot from the Head Down, implying that when things in a system starts going sour, it starts from the top).

Needless to say, experimental results like this should be interpreted with caution and it is first when and if we would have replicated the same type of experiments a number of times that firm conclusions can be drawn. Still, as far as we know, this is the first experimental evidence showing how social trust and trust in government officials may be causally related. To recapitulate, our first main result is that corrupt behavior by public authorities clearly influences people's trust in them, both in the Romanian and Swedish samples. Thus, our data seems to confirm the hypothesis that it is not the case that people who live in highly corrupt societies come to morally accept corrupt behavior by public officials. On the contrary, as has been argued by e.g., Rasma Karklins (2005), people in corrupt societies are more likely to argue that while they view corruption as something morally wrong, ordinary citizens who participate in corruption are not to blame because it is "the system" that forces them to take part in corrupt dealings. Our second main result is that when people experience deceitful behavior by public authorities, they do not only lose trust in the authorities in question. In addition, they also come to believe that people in general in such a society are less trustworthy. These effects were the same regardless of whether people have been brought up in a high trust/low corruption culture such as Sweden or in a low trust/high corruption culture such as Romania.

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Table 1

Mean Ratings of Vertical Trust Related to Type of Culture, Authority, Initiator, Outcome, and

Bribe

			Outcome and Bribe			
			Approved request		Declined request	
Authority	Culture	Initiator	Bribe	No bribe	Bribe	No bribe
Doctor	Sweden	Authority	2.10	5.42	2.38	4.56
		Elevator man	2.45	4.69	5.71	4.82
	Romania	Authority	2.20	4.99	2.18	4.29
		Elevator man	2.54	4.73	5.33	4.65
Police	Sweden	Authority	2.11	4.43	2.20	3.59
		Elevator man	2.57	4.42	5.49	4.81
	Romania	Authority	1.95	3.85	2.43	4.76
		Elevator man	2.22	3.63	5.19	5.08

Table 2

Mean Ratings of Trust in Authority in General Related to Type of Culture, Authority,

Initiator, Outcome, and Bribe

Authority	Culture	Initiator	Approved request Bribe	Approved request No bribe	Declined request Bribe	Declined request No bribe
Doctor	Sweden	Authority	3.94	5.19	3.68	4.97
		Elevator man	4.03	4.77	5.35	5.00
	Romania	Authority	3.69	4.62	3.69	4.26
		Elevator man	3.77	4.72	4.77	4.31
Police	Sweden	Authority	3.12	4.12	3.47	4.16
		Elevator man	3.28	4.09	4.78	4.66
	Romania	Authority	2.93	3.71	3.22	4.51
		Elevator man	3.07	3.78	4.85	4.66

Table 3

Mean Ratings of Social Trust Related to Type of Culture, Authority, Initiator, Outcome, and

Bribe

| | | | Outcome and Bribe | | | |
| | | | Approved request | | Declined request | |
Authority	Culture	Initiator	Bribe	No bribe	Bribe	No bribe
Doctor	Sweden	Authority	4.13	4.61	4.42	4.51
		Elevator man	4.06	4.45	4.71	4.55
	Romania	Authority	3.35	3.78	3.75	3.48
		Elevator man	3.28	3.65	3.50	3.55
Police	Sweden	Authority	4.22	4.47	4.50	4.41
		Elevator man	4.28	4.44	4.59	4.47
	Romania	Authority	3.61	3.85	4.15	4.12
		Elevator man	3.61	4.00	3.80	3.85