

Does Culture of Openness Matter? A Cross-National Comparative Experiment on the Effect of Transparency on Trust in Government

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Authors:

Stephan Grimmelikhuijsen (corresponding author)

Utrecht University, Utrecht School of Governance

Utrecht, the Netherlands

s.g.grimmelikhuijsen@uu.nl

Greg Porumbescu, Boram Hong & Tobin Im

Seoul National University, Graduate School of Public Administration

Seoul National University, Shilim-dong, Kwanak-gu

Seoul, South Korea, 151-742

Abstract

This paper compares the effect of transparency on trust in government between the Netherlands and South Korea. The effect is investigated by two similar series of three experiments. We hypothesize that the effect of transparency differs, because both countries have different cultures of openness, with the Netherlands being relatively more open. Results

reveal similar patterns in both countries: transparency has a subdued and sometimes negative effect on trust in government. However, the negative effect in South Korea is much stronger.

Findings suggest that effects of transparency are mitigated by more open cultures. This implies a subdued and negative effect of transparency on trust in the short term.

Paradoxically, this suggests that transparency in the long term has beneficial effects on trust.

Government transparency efforts can be considered part of an open culture and as such may mitigate the negative effects of transparency on trust in government in the long term.

1. Introduction

Government transparency is seen by many as one of the keys to better governance. It can help prevent corruption, contribute to legitimacy, enhance government performance by increasing efficiency, and promote principles of good governance (e.g. Florini 1998; Birkinshaw 2006; Hood 2006; Roberts 2006). Government transparency is seen not only as a means to achieve certain goals, but has become a goal in itself. According to some transparency or, “the right to know”, is a basic human right (Birkinshaw 2006).

The emergence of the ICTs and later the Internet gave rise to new possibilities for storing and disseminating information. In addition, government information can now be read by anyone with access to the Internet; independent of time or place. This gave rise to a particular form of transparency: computer-mediated transparency (Meijer 2009). ICTs have catalyzed the spread and permeation of (government) information and eventually transparency practices throughout government. Although Freedom of Information Laws form the backbone for government transparency, computer-mediated transparency is an essential part of modern day government transparency.

Transparency is now proposed as the solution to one of the most intangible problems of democratic governance: citizens’ increasing mistrust of government. Several authors argue that increased citizen knowledge of government processes and performance will increase understanding and trust in government (Blendon et al. 1997; Bok 1997; Cook et al. 2010).

This alleged effect of transparency on trust in government is extensively debated in the literature. As suggested above, optimists argue that transparency creates a culture of openness within government organizations which will strengthen citizen trust (Hood 2006, 217). On

the other hand, skeptics stress that more transparency can elicit uncertainty and confusion among the public (O'Neill 2002). Other scholars emphasize that transparency might have no effect at all, because other determinants of trust in government are more important (e.g. Roberts 2006, 119).

Recent experimental research shows that the positive effects of transparency on trust in government are limited at best (Tolbert and Mossberger 2006; De Fine Licht 2011; Grimmelikhuijsen 2012). However, in these studies and in the academic debate, the influence of country specific context is hardly taken into account. Accounting for the influence of national contexts on relationships between transparency and trust in government is important as recent work has suggested that citizens' predispositions towards government in general, influences the effect of transparency on trust in specific organizations (Grimmelikhuijsen & Meijer 2012; Bouckaert and Van de Walle 2003). This implies that the effect of transparency depends on the country specific context.

One important elements of a country's context is their 'culture of openness': the extent to which people already used to an open government and critical coverage of government activities. For instance, in countries with long democratic traditions and full press freedom people will experience transparency differently than in countries with more closed cultures. This paper has the aim to assess the influence of a culture of openness on the relation between transparency and trust in a specific government organization by investigating the following question:

“How does the culture of a country with respect to openness affect the relationship between computer-mediated transparency and trust in government organizations in that country?”

This paper combines a cross-country comparison (to investigate the difference in cultures of openness) with an experimental design (to investigate the effect of transparency at the individual level). Two countries, South Korea and the Netherlands, are compared because - for the purposes of this study - they are similar in many ways, but very different on their culture of openness. We will elaborate on this further in section 4.

A similar series of three experiments have been carried out in each country. An experiment is particularly useful to assess the actual causal effect of transparency on trust instead of mere correlation. Several groups of people are presented with different degrees and types of transparency. Afterwards their trust levels are measured by means of a questionnaire. By carrying out experiments, an empirically founded and more refined view perspective on causal relationships between transparency and trust in government can be provided. Each experiment tests the effects of one type of computer-mediated transparency: decision-making transparency, policy information transparency and policy outcome transparency. In order to be able to carry out experiments, the two core concepts - transparency and trust – will need to be specified first.

2. Defining Transparency and Trust

2.1 Defining Transparency

Most definitions of transparency relate to the extent to which an entity reveals relevant information about its own decision processes, procedures, functioning and performance (Gerring and Thacker 2004; Welch et al. 2005; Curtin and Meijer 2006). As such, transparency typically incorporates multiple components including the availability of information about the internal workings or performance of an organization. This enables

‘inward observability’, which refers the ability of individuals and groups outside of the organization to monitor activities and decisions undertaken within the organization. This leads to the following definition: *Transparency is the availability of information about an organization or actor allowing external actors to monitor the internal workings or performance of that organization.*

In this paper we will specifically focus on computer-mediated transparency (cf. Meijer 2009). How to measure transparency in an experimental setting? Traditionally, scholars interested in measuring computer-mediated transparency have focused on the presence of easily measurable content. For example, the Cyberspace Policy Research Group (CyPRG) developed a Website Attribute Evaluation System (La Porte et al. 2002) which has been widely used. These authors have sought to capture transparency in terms of the online availability and the organization of reports or laws. While this type of accessibility is easily measured, it represents only one part of transparency.

This article focuses on three different qualities of transparent information: completeness, color and usability. Although these three characteristics are by no means exhaustive and do not capture the full complexity of all features of transparency, these are considered central in many discussions about transparency and are therefore central to this study.

Information *completeness* refers to whether the information is disclosed fully (i.e. its comprehensiveness). Moon and Norris (2005) refer to transparency as the amount of information available on official government websites. However, completeness of information should not be equated to amount. For instance, government organizations that

overload citizens with a huge number of inaccurate policy reports might be considered less transparent than those with concise yet accurate content.

The *color* of information refers to the degree of positiveness of the information. Scholars seem to agree that information on government websites tends to be overly positive about government actions or officials (Davis 1999; Etzioni 2010, 398). As such, in this study the extent to which information is colored by a politically favorable interpretation of the truth is the second central dimension of information.

The third major element in determining the degree of computer-mediated transparency is the *usability* of information on a website. Instead of just divulging more information, the way information is offered to the public is also important. For instance, transparency also implies that information is disclosed in a timely matter and presented in an understandable format (Larsson 1998; Dawes 2010).

In terms of its object, transparency concerns separate events and processes of government (cf. Heald 2006; Grimmelikhuijsen and Welch 2012): 1) transparency of decision making processes; 2) transparency of policy content; and 3) transparency of policy outcomes or effects.¹

Decision-making transparency concerns the degree of openness about the steps taken to reach a decision and the rationale behind the decision. Democratic decision-making transparency has traditionally been a cornerstone of accountability. This provides citizens with relevant information about decisions that affect them, and allows them to check whether these decisions are in line with acceptable norms or election promises. Open meetings and open minutes of parliamentary meetings are examples of forms of decision-making transparency. The critical aspect of transparency in decision-making relates not to the decision itself; decision-making transparency is especially relevant to make visible how the

process of decision-making went, in this way the public is allowed to assess why the decision outcome was the way it was. This study specifically focuses on this aspect of decision-making transparency.

Policy transparency refers to the information disclosed by government about the policy itself: what the adopted measures are, how they are supposed to solve a problem, how they will be implemented and what implications they will have for citizens and other affected groups. For example, many government organizations have websites on which they tout their policy plans containing proposed measures to combat pressing problems such as pollution or crime. The actual policy is the outcome of a decision-making process, and hence policy transparency might be considered to follow from decision-making transparency.

Policy outcome transparency captures the provision and timeliness of information about policy effects. For example, it could show a city's crime rates or disclose pollution data. The importance of policy outcome transparency has been catalysed by the growing emphasis of NPM-like reforms on policy results (Pollitt and Bouckaert 2004). Further, policy outcomes primarily regard the effect of the policy measures that have been carried out. Therefore policy outcome transparency is considered to follow from policy transparency.

In this article three objects of transparency (decision-making, policy, and policy outcome) and three dimensions of information (completeness, color and usability) will be tested. In order to gain a deeper understanding of transparency, this multidimensionality will be used to measure transparency more accurately (see Table 1).

[Table 1 here]

2.2 Defining and Measuring Trust in Government

This article focuses on institutional trust (e.g. Zucker 1986; Tyler 2001; Cook and Gronke 2005), but tries to connect this to the general literature on trust. Trust is a nebulous concept and has been a central object of study for decades in many disciplines. Understanding why and how people trust has thus been the central focus of research for psychologists, sociologists, political scientists, economists and organisational scientists. In order to fully understand trust in government, we need to have an inter-disciplinary understanding of trust. However, across and even within disciplines, a myriad of definitions, concepts and operationalizations are being used in research. Because of this pluralism, Rousseau, Sitkin, Burt, and Camerer (1998) developed a cross-disciplinary definition of trust that is much cited in the social sciences: Trust is *'a psychological state comprising the intention to accept vulnerability based upon positive expectations of the intentions or behavior of another.'* (Rousseau et al. 1998, 395)

According to Rousseau et al. all definitions of trust incorporate some kind of positive expectation is involved in evaluating the intentions and behavior of the object of trust (Yamagishi and Yamagishi 1994; Kramer and Lewicki 2010). These expectations take the form of perceptions of the trustworthiness of the government organization. Trustworthiness refers to the characteristics of the object of trust as perceived by a person (Kim 2005). A large body of literature elaborates on what elements constitute perceived trustworthy behavior. Various dimensions are discerned throughout different disciplines that study different objects of trust. However, as Rousseau et al. (1998) argued, trust is 'not so different after all' among these disciplines. Although several differences exist between scholars, all these dimensions show a clear resemblance to each other.

All authors find some form of *competence* to be a part of trustworthiness. Some call it *effectiveness* (Hetherington, 1998) or *expertise* (Peters, Covello & McCallum 1997). Yet the differences in meaning are subtle, so it should be clear that some evaluation of government performance is part of its trustworthiness.

Further, nearly all authors regard *benevolence* as a part of trustworthiness. This can be viewed as an ethical dimension of trustworthiness, as it particularly focuses on the intention of government action. Some authors call this dimension *care* (Peters et al. 1997) or *commitment* (Levi and Stoker 2000). It expresses some kind of interest by one being trusted by those other than them self. Benevolence might be the term that best fits with this study's object of trust, namely government organizations. A government organization that genuinely cares about the citizens it is serving would most likely be perceived as being benevolent.

A third dimension often reported by scholars that is also ethical is *honesty*, or the integrity of the trusted. Honesty refers to the extent to which the other is perceived to tell the truth and keep commitments. Benevolence and honesty are of a different nature than competence, as they reflect ethical traits rather than some kind of capability. Benevolence reflects the trustee's motives and is based on altruism. In contrast, competence is a utilitarian dimension of trusting beliefs, as it refers to the *functioning* of government organizations themselves. For the purposes of this study the following three dimensions of perceived trustworthiness have been identified from the literature:

[Table 2 here]

3. How Culture of Openness May Affect Transparency and Trust

The debate on transparency and trust is often held in general terms. ‘Transparency optimists’ emphasize that transparency stimulates a ‘culture of openness’ within organizations, which is thought to have a positive effect on trust (Hood 2006, 217). Supposedly, transparency helps people to become more familiar with government, brings them closer together and creates understanding (Nye et al. 1997). Therefore, several authors argue that one cause for a lack of trust in government is that citizens are not often enough provided with factual documentation about government processes and performance (Blendon et al. 1997; Bok 1997; Cook et al. 2010).

‘Transparency pessimists’ question whether showing citizens the results of government policies will actually boost their trust (O’Neill 2002, 2006; Bannister and Connelly 2011). These pessimists argue that transparency may lead to politics of scandal and even ‘delegitimization’ of government. Their key argument is that the complexities of government policies and the democratic process are not easily communicated to the public through a set of performance indicators.

The empirical basis for both lines of argument is limited: both camps refer to anecdotal material rather than thorough empirical studies. Recently, some empirical studies have been carried out (e.g. Tolbert and Mossberger 2006; Cook et al. 2010; De Fine Licht 2011; Morgeson et al. 2011; Grimmelikhuijsen 2012), but these studies do not take into account country specific contexts that influence the relation between transparency and trust in

government organizations. The next step in enhancing our understanding of transparency and trust is to look at empirical cross-country comparisons.

A crucial country specific context is that of whether a country has a ‘culture of openness’. This culture consists of three parts: a country’s history and experience with transparency and openness, and the extent to which they are used to a critical approach toward government. For instance, a country with a well known strong culture of openness is Sweden. It was the first country to ever implement a FOIA (1766). Furthermore, Sweden’s press freedom has a top ranking in the Freedom House benchmark. Other indicators of openness, such as Transparency International’s corruption index rank Sweden 4th with a score of 9.3 on a 10-point scale.

If a country has a more open culture this affects the way individuals will experience transparency. The Elaboration Likelihood Model (ELM) developed by Petty and Cacioppo (1986) provides important insights into how transparency might work at the individual level. ELM states that persuasion can take place both through effortful and effortless processing of information. This ‘central route’ proposes that individuals who are exposed to a persuasive message relate the message to their existing knowledge about the message topic. Persuasion through the central route is a process that involves deliberative and active information-processing. Individuals who have limited knowledge about the topic can be expected to change their attitude more easily in response to a message than people who already have substantial knowledge. Persuasive messages are expected to affect attitudes that are not based upon pre-existing knowledge more than those that *are* based upon pre-existing knowledge.

In a country with a long history of openness, people may have higher levels of general knowledge of what government is or does. In an open culture people can no longer be kept ignorant: seeing government organizations as normal organizations in which mistakes and failures occur contributes to *political maturity*. Research on deliberative democracy shows that, under certain circumstances, people who engaged in deliberative practices showed a greater understanding for democracy's complexities and the need to compromise (Ryfe 2005). Through experience citizens are better able to understand that democratic government is often a manner of 'muddling through'.

Therefore we would expect that in a culture of openness people would be more trusting in a government organization if they were confronted with transparency. Citizens in a culture leaning toward openness have more knowledge, experience and are exposed more often with critical exposure of government. This leads to the following hypotheses:

H1: Transparency will have a stronger positive effect/less negative on trust in government in a country with culture of openness.

H0: Transparency will have an equal effect on trust in government, regardless country specific circumstances.

4. Cross-national Comparison: the Netherlands and South Korea

Comparative cross-national research is suitable to test macro-hypotheses and to explore 'micro replications' to test validated explanations in other cultural settings (Lijphart 1971, 685). Individuals are the units of analysis instead of the national structures itself, yet the effect of transparency on individuals is tested in a different cultural setting. This paper

combines a cross-national comparison with experiments and will as such test if there are interrelations between transparency and cultural settings. The problem with the cross-national comparative method is that there are many variables, yet a small number of cases.

To increase the rigor of the comparative method it is important to have countries that are comparable on a large number of important characteristics and dissimilar on the relevant variables the researcher wants to compare (Lijphart 1971, 687). By comparing South Korea and the Netherlands our aim is to understand how a variable at the country-level influences transparency and trust in government. It is beyond the scope of this paper to investigate the full range of possible configurations that somehow influence the relation between transparency and trust. We will only look at the role of a country's culture of openness in the transparency and trust relation.

[Table 3 here]

Table 3 shows that that both countries are comparable on many criteria: they are both, wealthy, advanced democratic societies. In addition, South Korea and the Netherlands have sophisticated e-government systems. This means that the technological backbone of computer mediated transparency (information databases, online disclosure) in both countries is well developed which is relevant for their level of comparability.

Table 3 makes clear that there are striking differences between both countries in variables that regard their 'culture of openness'. The Netherlands ranks much higher on indicators that

are related to the culture of openness in a country. The Freedom House Index labels the Dutch press as ‘free’, whereas the South Korean press is labeled ‘partly free’, this is backed by another press freedom index. Further, South Korea scores lower on the corruption index of Transparency International (5.4 compared to 8.9 in the Netherlands).

The difference between cultures of openness also makes sense from a historical point of view. South Korea’s government has long been dominated by authoritarian regimes, and democratized only in 1987. The Netherlands has a much longer tradition with democratic government. In 1848 a new constitution was proclaimed, which shifted power from king Willem III to a parliament of elected officials. Thus the Netherlands has a much longer democratic tradition.²

Hence, transparency in the Netherlands in this case would then have a stronger positive (or less negative) effect of transparency.

5. Method

5.1 Participants

Three experiments were carried out in each country. The sample used here consists only of students, 381 in the Netherlands and 279 in South Korea.⁵ The background variables of both samples are shown in Table 4.

[Table 4 here]

It should be noted that the sample is not representative for the population of neither the Netherlands nor South Korea: people are relatively highly educated and the majority is oriented towards (left leaning) liberal political parties. The sample is probably relatively knowledgeable about the policy topic under scrutiny and more trusting towards government in general. That said, in this paper we are not interested in statistical generalization to the whole population as such, yet to generalizing the theoretical relation between transparency and trust.

Variables such as political preference might affect trust in government, and unequal distribution of these background variables potentially threatens the internal validity of the results. The most important background variables that might affect trust in government are considered to be gender, age, education, and political preference (e.g. King 1997; Putnam 2000). One of the variables (education) is constant since we only selected students as participants. The samples are comparable with regard to their average age and political self-identification, yet differ on the male/female ratio. Although this might not necessarily alter the *effect* of transparency, this variable is controlled for in the main analysis.

5.2 Experimental Setting and Procedure

In the Dutch experimental setting concerned air pollution at the local level. Air pollution is a widespread problem in numerous cities in a great deal of countries worldwide (see for example the OECD Environmental Outlook to 2030). This paper examines the case of air pollution in local governments because of its importance in public policy. Further, information disclosure is an important issue in air pollution policy. In the Netherlands, government organizations must comply with the Dutch Freedom of Information Act (FOIA) and the Aarhus Treaty. The Aarhus Treaty was adopted on 25 June 1998 and entered into

force on 30 October 2001 by the United Nations Economic Commission for Europe (UNECE). The Dutch FOIA prescribes that environmental information should be disclosed more extensively than other information. All ratifying countries commit to implement easier (electronic) means of public access to environmental information. Hence, air pollution is considered to be a highly relevant case for studying transparency.

The South Korean experimental setting concerned identity theft prevention policies at the national level. In South Korea, identity theft prevention policies were more topical than environmental policy. Further, the sample was composed of university students nation-wide, therefore this experiments focuses on the national. In addition, South Koreans tend to be more concerned with national policies, because of the only recent decision to increase local autonomy. In South Korea, identity theft has become a major issue, as more than one million cases being officially recorded over the course of the past decade (Statistics Korea 2012). Identity thefts have tended to be most pronounced in the Seoul area (Seoul Metropolitan Police Agency 2011). Due to the frequency of identity theft in South Korea, this issue has become a prominent topic in the South Korean legislature, which in 2011 passed the 2011 Privacy Act. Given the prominence of identity theft to public policy over the course of the past decade there was a high demand among citizens to know why this phenomenon was so frequent in Korean society, and what measures were being taken to prevent it from occurring in the future, implying that information disclosure is an important issue in the formation of identity theft policy. Therefore, identity theft policy is considered relevant for the study of transparency in the context of South Korea.

General Experimental Procedure. The procedure consisted of three elements: (1) instructions in what was involved in the experiment with some general questions, (2)

presenting the stimuli, and (3) a post-test questionnaire. Each of these elements will be explained.

1. At the start, participants were shown questions about prior visits of municipal websites and prior knowledge about the topic. It should be noted that participants were randomly assigned to the different websites. A click on a link led them to one of the two websites in the experiment. Before clicking on the link, the questionnaire told participants to read the website and to follow the instructions on the website.
2. Each website consisted of two pages. The first page had a general explanation about the policy in question and was equal in each group. People were then instructed to click on to the next page which provided respondents with various forms of information (stimuli) relevant to empirically examining the three hypotheses. The control group (i.e. without stimulus) only completed a questionnaire and hence did not look at a website.
3. At the end, they were asked to close the window of their browser and to complete the questionnaire. The participants in the control group were directed to the questionnaire directly, without visiting the municipal website.

5.3 Operationalizing Transparency and Perceived Trustworthiness

Transparency. Each experiment had a different operationalization of transparency. These operationalizations will be briefly described below. In each experiment there was a control group that received no information.

- Decision-making transparency focused on completeness of information: an experimental group received complete information about the decision-making process.

- Policy transparency focused on the ‘coloring’ of information: an experimental group received policy information that was ‘balanced’ (showed positive and negative sides of policy measures).
- Policy outcome transparency focused on both the timeliness and comprehensibility of information about certain policy outcomes. Two experimental groups received information that was easy to comprehend and timely.

The transparency operationalizations are summarized in Table 5 below.

[Table 5 here]

The three combinations shown in bold were investigated in this study. This means that three combinations have been tested in separate experiments.

Perceived Trustworthiness. Perceived trustworthiness was measured after the experiment by means of a questionnaire. Participants were asked specifically about the perceived benevolence, competence, and honesty of the government organization with regard to the topic. All dimensions were measured on a five-point scale and are derived following a trust scale validated by McKnight et al. (2002), and then tested and adapted to the public sector context. Survey items for variables mentioned in this section can be found in the appendix.

6. Results ³

The results of each experiment will be discussed separately. First, the analysis assesses both a significant overall multivariate effect of transparency and univariate effects on the separate dimensions of perceived trustworthiness. The overall multivariate effect indicates whether *some* significant difference occurs in the data without specifying the effect. Univariate significance proves an effect in a particular dimension: for example, perceived honesty. A significant finding in one of these tests indicates that probably there is at least one experimental group that differs from another in the subsequent group comparison.

Decision-making Transparency. The analysis shows that significant multivariate differences are detected between the complete information group and the control group, in South Korea ($F(1,52)=16.58, p < .001, \eta^2=.509$). In the Netherlands no significant results were found ($F(1,50)=0.81, p = .494, \eta^2=0.050$).

We now turn to carrying out pair-wise group comparisons. The results are displayed in Table 6. If means have a superscript in common within rows, no statistical difference was found between those groups.

[Table 6 here]

As table 6 shows, in the Netherlands no significant differences are found when comparing no transparency (control) versus full levels of information. The South Korean results show another pattern and are much more clear-cut: people who were shown complete decision-

making information were much more negative about the perceived competence of the government organization (-0.93). The perceptions of the other two dimensions remained the same.

Policy Transparency. The analysis shows that significant multivariate differences are detected between the balanced information group and the control group only in the South Korean case ($F(1,44)=3.27, p < 0.05$. Covariates: Sex, political preference, age). This analysis shows that significant univariate effects of transparency on perceived competence ($F(1,44)=4.66, p < .05, \eta^2=.102$).

[Table 7]

Again the trust in the specific government organization is lower in South Korea than in the Netherlands. Also for policy transparency the overall patterns are similar. Nevertheless, the only significant difference found regards perceived competence: if people receive more balanced information (in the South Korean case) this leads to more negative evaluation of competence. The same pattern applies to the Dutch case, however, the effect is not strong enough to render the relationship statistically significant. *Further, the means of benevolence and honesty in both countries are slightly higher in the group that received balanced information. This indicates that the experimental stimulus is perceived in a similar way in both countries. Also it indicates that they are measuring the same thing in both countries.* Nevertheless, the main point is that although the patterns amongst countries are comparable,

the negative effect of policy transparency on perceived competence in South Korea is rather strong (-0.4), whereas this is absent in the Netherlands.

Policy Outcome Transparency. The multivariate effect of policy outcome transparency was significant in the case of South Korea ($F(1,46)=4.99, p < .000, \eta^2=.254$ (covariates were: sex, age and political preference). The case of the Netherlands was also significant ($F(1,502)=1.57, p = .158, \eta^2=.039$). Both the effect transparent positive and negative outcomes were taken into account in the experiment.

[Table 8 here]

In the Dutch case transparency only makes a small and non-significant difference. Negative policy outcomes are related with lower levels of perceived competence. Although this is significantly different from the perceived competence in the positive experimental group, there is no statistical difference with the control group. So, the negative policy outcome has some negative effect on perceived competence but this effect is ambiguous.

The Korean participants responded much more clearly: a strong negative effect on perceived competence was found (-1.06). A positive policy outcome transparency did not have a positive effect on perceived competence, however. Interestingly, perceived benevolence and honesty were judged more positively when positive policy outcomes were made transparent. Because of the low N in the Korean case these differences are only significant at a confidence interval of 10%.

7. Conclusion and Discussion

Over the course of the past few decades, government transparency has garnered a great deal of political and academic attention (e.g. Roberts 2006; Hood and Heald 2006; Meijer 2009; Piotrowski 2007; Bannister and Connelly 2011; Grimmelikhuijsen 2012). However, despite great interest in the topic of government transparency, few international comparisons have been made in order to assess the way in which different contexts may influence the consequences of government transparency. This research serves as an initial step in filling such a dearth in the extant transparency literature. What this study has examined in particular is the way in which transparency may impact citizens' attitudes toward their government. In our analysis we focused in particular upon understanding how different cultures of openness affect this relationship. The results of this study turned back mixed results.

With respect to the dimension of competence, the results of all three experiments suggest that the effects of transparency differed in South Korea from those in the Netherlands. In particular, all three experiments suggest that transparency significantly contributes toward reduced perceptions of government competence among South Korean citizens⁴, while in the case of the Netherlands transparency only returned significant effects -also negative- with respect to negative policy outcomes upon citizens' perceptions of government competence. While both contexts returned negative relationships between the trust dimension of competence and transparency, these findings suggest the impact of transparency on citizens' trust in government in particular is likely to be differentiated according to a government's previous track record regarding openness of government, as South Korean citizens consistently exhibited more extreme responses to the information afforded to them, when compared to their counterparts in the Netherlands.

Additionally, it is interesting to note that, while transparency also appeared to influence citizens' perceptions of the honesty and benevolence dimensions of trust, the effects were not significant; not in the Netherlands and not in South Korea. This is interesting because presumably as the government opens its doors to citizens, at the very least one would expect citizens to perceive their government as more honest, yet such effects were rather subdued.

Stemming from the findings of this study, three main implications can be drawn. An initial implication is that, in contexts where attempts to expand the openness of government have only recently been undertaken, such as in South Korea, citizens' opinions and perceptions of government are likely to be much more sensitive to the additional information to which they are exposed. Accordingly, these results make particular sense when couched in terms of the ELM, discussed earlier (Petty and Cacciopo, 1986). This finding is consistent with a recent study by Grimmelikhuijsen and Meijer (2012) who found people knowledge about government policies to be less impressionable when it comes to receiving government information.

Furthermore, the Dutch people are much more used to a relatively open culture, free press and have a long democratic standing. They might therefore not only be better informed, but might also be more used to prior critical coverage of government activities. Hence, in contexts where citizens are likely to be better informed of the activities of their government, their opinions are likely to be less sensitive to new information that would be provided to them via transparency policies implemented by government. Conversely, in contexts that lack long established track records with respect to open government, citizens' may be more sensitive to the information that transparency policies afford them.

A second major implication that can be drawn from the findings of this research is that the effects of transparency on citizens' trust in government appear more pronounced with respect to their negative impact on citizens' trust in government than they do with respect to their positive impact. Moreover, the findings of this research suggest that transparency may do little to improve citizens' opinion of government, at least in the short term. To this end, it is possible to view these findings as an extension of previous work done by Kampen and colleagues (2006), who found that citizens' negative experiences with government has a much more pronounced effect upon their levels of trust in government than positive experiences, leading the authors to the conclusion that "trust comes on foot and goes away on horseback" (2006, 389). Thus, while citizens in contexts that possess a longer history of open government may be less sensitive to new information afforded to them by transparency policies, this lack of sensitivity appears to disappear when specifically negative information is introduced, as suggested by the experiment related to policy outcomes in the case of the Netherlands.

Interestingly, the results suggest that on the long term transparency does seem to pay off in terms of trust. In other words, transparency may in the long term contribute to a better trusted government. Transparency helps citizens to getting used to critical coverage and experience with democratic processes. As such government transparency is an important part of an open culture and helps to increase political maturity of citizens. Hence, while in the short term transparency may negatively impact trust in a specific government organization, in the long term it may help strengthening a culture of openness which diminishes the short term negative effects of transparency on trust.

Finally, this study is not without its limitations. Most formidable of the limitations in this study is that the sample used for analysis consisted of students from top ranked universities in the Netherlands and South Korea. Every empirical piece of research faces a trade off in terms of choosing the methodology it adopts (Shadish, Cook, and Campbell 2002). This study adopted an experimental methodology as this methodology is generally viewed as being the best at assessing causal relationships, as opposed to assessing associations, which larger n empirical work often does (Abbott 2001). However, the drawback associated with experimental methodologies is that, often times, it is prohibitively expensive to carry out experiments on the same scale that other forms of empirical analysis are, such as those based on surveys. As such, the results of this study should be interpreted with caution.

That said, it is also important to consider some benefits associated with using samples of students for experimental research. As a methodology, experiments are useful in addressing causal relationships by controlling for confounding effects. However, the ability to control for confounding effects is only as good as the samples are homogeneous. To this end, making use of samples of students allows research to control for any sources of endogeneity (such as omitted variable bias) that may be present in the relationship between citizens' trust in government and transparency (Woolbridge 2004). For example, previous research has suggested that the effects of transparency upon trust may be differentiated according to citizens' motivation in acquiring new information, cognitive capacity, and personal traits (Cook et al. 2010). Presumably, by comparing samples of students from top universities in the Netherlands and South Korea, a broader spectrum of confounding effects is likely to be controlled for, when compared to comparing samples of the population at large, which is likely to differ a great deal with respect to citizens' motivation to acquire government information, cognitive capacity, and personal traits.

While various forms of transparency are being advocated and implemented by governments across the world, it is important to consider this ‘dual effect’ of transparency. While on the short term transparency may not have an effect, or even negative effects on public attitudes toward government the long term effect may in fact be very different. If governments at large become more transparency this may strengthen a country’s a culture of openness (e.g. Florini 1998; Hood 2006). In the long run this contributes to political maturity, which makes citizens better able to understand what is going on in government organizations, without dramatic erosion of their trust in government.

Notes:

1. Typically ‘information’ is distinguished from ‘data’. Information has meaning for the recipient, whereas data are the bare ‘facts and figures’. In this article we only focus on ‘information’.
2. We acknowledge that there are other differences between both countries. For example, the state structure in the Netherlands is characterized as a decentralized unitary state, whereas the South Korean state is in practice much more centralized. Further, the Dutch political system is a fragmented multi-party system. In contrast, South Korea’s political system is more oriented toward a two party system.
3. It should be noted that the results of the Dutch experiments have been published in different venues. For this article only students were selected from the original database to ensure comparability with the South Korean experiments.
4. In experiment three related to policy outcomes, there was a non significant positive effect on citizens’ perceptions of government competence. However, as this finding is not significant it will not be discussed any further.

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Table 1 – Objects and dimensions of transparency

<i>Object of transparency</i>	<i>Dimension of transparency</i>			
		<i>Completeness</i>	<i>Color</i>	<i>Usability</i>
	<i>Decision-making</i>	Complete information (e.g. elaborations and rationale behind decisions) about the decision-making process are available.	Information is reflecting all values and opinions in the process.	Decision-making process made insightful in a timely and understandable manner.
	<i>Policy information</i>	All relevant policy plans and measures are available.	Reflecting both negative and positive issues about the policy.	Policy plans and measures are made insightful in a timely and understandable manner.
<i>Policy outcome</i>	All qualitative and quantitative data about relevant policy outcomes are available.	Effects are determined objectively, there is room for dissenting opinions about policy outcome.	Policy outcomes are made insightful in a timely and understandable manner.	

Table 2 – dimensions of perceived trustworthiness in this study

<i>Perceived trustworthiness</i>	<i>Expectations of the trusted object based on the perceived competence, benevolence and honesty.</i>
Competence	Involves the knowledge and skills necessary for effective operations of the trusted object.
Benevolence	One makes good faith agreements, tells the truth, and fulfills any promises made.
Honesty	One cares about the welfare of the other and is therefore motivated to act in the other person's interest.

Table 3 – Summary of comparison between the Netherlands and South Korea

	The Netherlands	South Korea
Industrialized society	Yes	Yes
Democratic	Yes	Yes
Economy ¹	Advanced	Advanced
E-government sophistication ²	High	High
<i>Culture of openness variables</i>		
Freedom of Information Act	Since 1978	Since 1996
Democratic government since	1848	1987
Press freedom ³	‘free’ (5 th) ‘good situation’ (3 rd)	‘partly free’ (68 th) ‘satisfactory situation’ (44 th)
Transparency International corruption Index ⁴	8.9/10 (ranked 7/189)	5.4/10 (ranked 43/189)

¹ NL: GDP per capita \$41,949 (2011). SK: GDP per capita \$31,753 (2011)

² Source: United Nations E-government Survey 2012. E-government for the People. NL: 2nd on UNPAN ranking 2012. SK: 1st on UNPAN ranking 2012.

³ Reporter Without Borders Press Freedom Index 2012.

⁴ According to the Corruption Perceptions Index of Transparency international

Table 4 - Overall sample of three experiments

	The Netherlands (N=381)	South Korea (N=279)
% Male	37.3%	60%
Average age (sd)	23.7 (2.21)	22.5 (2.01)
% (moderate) liberal	58.3%	56.1%

Table 5 – summary of transparency operationalization

Object of transparency	Dimension of transparency			
		Completeness	Color	Usability
	<i>Decision-making</i>	Complete information (e.g. elaborations and rationale behind decisions) about the decision-making process are available.	Information is reflecting all values and opinions in the process.	Decision-making process made insightful in a timely and understandable manner.
	<i>Policy information</i>	All relevant policy plans and measures are available.	Reflecting both negative and positive issues about the policy.	Policy plans and measures are made insightful in a timely and understandable manner.
<i>Policy outcome</i>	All qualitative and quantitative data about relevant policy outcomes are available.	Effects are determined objectively, there is room for dissenting opinions about policy outcome.	Policy outcomes are made insightful in a timely and understandable manner.	

Table 6 – Group comparisons of perceived competence, benevolence and honesty for decision-making transparency

Dependent Variable	The Netherlands (N=53)		South Korea (N=55)	
	Control group	Complete information	Control group	Complete information
Perceived Competence	3.38(.09) ^a	3.28(.09) ^a	2.66 (.13) ^a	1.73 (.10) ^b
Perceived Benevolence	3.34(.09) ^a	3.46(.09) ^a	2.05 (.12) ^a	2.10 (.10) ^a
Perceived Honesty	3.07(.10) ^a	3.25(.10) ^a	1.88 (.12) ^a	1.64 (.10) ^a

Rows with unequal superscripts differ significantly at $p < 0.05$. No multiple comparison correction since only one comparison per dimension was carried out. Means displayed, standard errors in parentheses. Covariates: age, sex (1=male), and political preference (1=left-wing).

Table 7 – Group comparisons of perceived competence, benevolence and honesty for policy transparency

Dependent Variable	NL (N=52)		SK (N=46)	
	Control group	Balanced information	Control group	Balanced information
Perceived Competence	3.22 (.11) ^a	3.02 (.13) ^a	2.37 (.13) ^a	1.97 (.12) ^b
Perceived Benevolence	3.60 (.10) ^a	3.83 (.12) ^a	2.11 (.11) ^a	2.24 (.10) ^a
Perceived Honesty	3.22 (.11) ^a	3.31 (.13) ^a	1.69 (.10) ^a	1.85 (.10) ^a

Rows with unequal superscripts differ significantly at $p < 0.05$. No multiple comparison correction since only one comparison per dimension was carried out. Means displayed, standard errors in parentheses.

Table 8 – Group comparisons of perceived competence, benevolence and honesty for policy outcome transparency

Dependent Variable	The Netherlands			South Korea		
	Control N=33	Positive N=43	Negative N=48	Control N=19	Positive N=14	Negative N=17
Perceived Competence	3.15 (.05) ^{a,b}	3.23 (.05) ^a	3.07 (.05) ^b	2.93 (.16) ^a	3.23 (.16) ^a	1.87 (.16) ^b
Perceived Benevolence	3.40 (.05) ^a	3.35 (.06) ^a	3.53 (.05) ^a	2.09 (.17) ^a	2.65 (.20) ^a	2.14 (.18) ^a
Perceived Honesty	3.17 (.05) ^a	3.15 (.05) ^a	3.21 (.05) ^a	1.81 (.15) ^a	2.42 (.18) ^a	1.89 (.16) ^a

Rows with unequal superscripts differ significantly at $p < 0.05$. No multiple comparison correction since only one comparison per dimension was carried out. Means displayed, standard errors in parentheses. Covariates: sex, age and political preference.

Appendix A) Survey Items

	<i>Items for 'Perceived Trustworthiness of a specific government organization'</i>
	<p>Perceived Competence items (Cronbach's α in NL = 0.89 SK = 0.95)</p> <p><i>I think that, when it concerns air pollution/identity theft policy...</i></p>
1	The municipality/central government is capable.
2	The municipality/central government is effective.
3	The municipality/central government is skilful.
4	The municipality/central government is professional.
5	The municipality/central government carries out its duty very well.
	<p>Perceived Benevolence items (Cronbach's α in NL = 0.76 and in SK=0.88)</p> <p><i>I think that, when it concerns air pollution/identity theft policy...</i></p>
1	If citizens need help, the municipality/central government will do its best to help them.
2	The municipality/central government acts in the interest of citizens
3	The municipality/central government is genuinely interested in the well-being of citizens.
4	The municipality/central government approaches citizens in a sincere way.
	<p>Perceived Honesty items (Cronbach's α = 0.85 in NL and in SK=0.85)</p> <p><i>I think that, when it concerns air pollution/identity theft policy...</i></p>
1	The municipality/central government is sincere.
2	The municipality/central government honors its commitments
3	The municipality/central government is honest.