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Transparency of Public Decision-Making: Towards Trust in Local Government?

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Abstract

Online minutes of local councils offer the opportunity to look behind the scenes of local government decision-making. Will this transparency, as promised, lead to higher levels of trust? This issue was investigated by conducting an experiment comparing participants who did not access the available information, people who were only allowed restricted information about the minutes, and those who were shown the full minutes of the local council.

Results indicated that people exposed to more information were significantly more negative regarding perceived competence of the council compared to those who did not access the available information. Additionally, participants who received only restricted information about the minutes thought the council was less honest compared to those who did not read them.

The relationship between transparency and trust is influenced partly by the perceived credibility of the message on the website. Also, knowledge about the decision-making process appears to shift judgment criteria. People well informed about the process are inclined to base their judgment of perceived competence on this knowledge and less on message credibility.

A theoretical explanation for the negative effect of transparency of public decision-making is sought in the expectations of the public versus the reality. A lower perceived competence by those who had access to full information might be explained by a gap between public expectations of rational decision-making and the reality of the chaos involved in public decision-making exposed through transparency.

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Keywords: openness, websites, experiment, trust

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Introduction

The transparency of public decision-making by local councils is well established in the Netherlands. The minutes of local council meetings are nearly literal transcriptions of the councillors' deliberations and decision-making processes, and in this sense, local council minutes give a unique behind the scenes look into local government. But what happens to trust in government when citizens take the opportunity to really examine the minutes of local government? Does this lead to disappointment with the actual process of public decision-making, or does it influence citizens to trust the local council? The effect of transparency on trust remains disputed, and although some studies have been conducted, the amount of empirical research on this topic remains limited (Tolbert & Mossberger, 2006). If there is research on this relationship, causal mechanisms cannot be inferred. This study aims to contribute empirically to the debate on the connection between transparency and trust.

The Internet has been a global catalyst for disclosure of government information, and information can now be disclosed at relatively low cost without the traditional boundaries of space and time (Margetts, 2006: 197; Curtin & Meijer, 2006; Welch et al., 2005). This leads to a central question:

Does transparency of public decision-making affect citizen trust in government?

This is a relevant question, as municipalities are the most visited government organizations on the Internet, and the government organization closest to citizens (see Pina et al., 2007; Van Dijk et al., 2008). Local councils are also seen as important government bodies in the Netherlands, since they are the public bodies formally in charge of their respective municipalities.¹

Whether transparency of government leads to higher levels of trust is discussed in depth throughout the literature. There is a widely shared opinion that transparency will lead to an open culture in government that benefits us all (Hood, 2006b). It is ultimately seen as 'something good' which will eventually increase citizen trust in government (Brin, 1998; Oliver, 2004). On the other hand, scholars argue that a greater degree of transparency generates the possibility to (unjustly) repeatedly blame the government for

¹ Article 125, section 1. The Constitution of the Kingdom of the Netherlands. The executive administration consists of a mayor and several aldermen, which is controlled and partly directed by the local council in a municipality.

mistakes. Bovens (2003) warns about this ‘dark side of transparency’: that when people can see everything behind the scenes of government, they may become disenchanted with government. According to Bovens, a fault by government can always be construed, and if citizens, media and politicians use transparency for their own gain with no restraints, this could result in the ‘politics of scandal.’ As a result, transparency could contribute to political cynicism, and citizen trust in government might even decline.

The decline of trust in government has been a cause for concern in recent years in the Netherlands and for decades in the US (Tolbert & Mossberger, 2006; Nye, 2007). Transparency is often proposed as a panacea for better governance in general and for combating declining trust levels in particular (Norris, 2001: 113; Hood, 2006a: 4-5), and increasing government transparency has been one of the major aims of reform initiated in nearly all OECD countries (Pollitt & Bouckaert, 2004).

The central question explored in this paper is examined by using an experimental design. Three groups of subjects were each presented with a different level of transparency in information given to them about public decision-making. The first group was given information that revealed a high level of transparency about the decision-making process, the second group with a low level of transparency (limited information), and the third group with no transparency or information about the process at all. The degree of trust in government of these three different groups was then compared.

The experimental design helps to make *causal* inferences about the transparency and trust relationship. First, the mechanism through which transparency leads to trust is tested using a research model that includes the role of information credibility and knowledge about the local council. Second, several hypotheses are tested to shed light on the specific differences in trust between experimental groups.

Trust and Transparency

Three Dimensions of Perceived Trustworthiness

Trust is a multidisciplinary concept with a wide variety of definitions. Because of this, Rousseau et al. (1998) tried to formulate an overarching definition of trust. Confident expectations and a willingness to be vulnerable (Mayer et al., 1995) are critical components of all definitions. Based on these elements, Rousseau et al. define trust as ‘*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). This means that trust is viewed as the perceived trustworthiness of

another. This concept is acknowledged by many scholars to be multidimensional (McKnight & Chervany, 2006; Rousseau et al., 1998; Mishra, 1996; Mayer et al., 1995). In this paper, three dimensions of perceived trustworthiness are distinguished: competence, benevolence, and honesty.

First, many authors on trust find some form of *perceived competence* to be a part of trustworthiness. Some call it 'ability' (Jarvenpaa et al., 1998), 'effectiveness' (Hetherington, 1998) or 'expertise' (Peters et al., 1997). Yet the differences in meaning are small, as they all refer to some kind of capability to act. In this paper, this refers to whether people perceive a government organization to be capable, effective, skilful or professional in making decisions.

Second, many scholars regard *perceived benevolence* to be a part of trustworthiness. This can be viewed as an ethical dimension of trustworthiness; it particularly focuses on the *intention* of government action. Some authors call this dimension 'care' (Peters et al., 1997), 'commitment' (Levi & Stoker, 1998) or 'concern' Mishra (1996). For this study, this refers to whether people think that a local council genuinely cares about the citizens living in their municipality.

Third, many scholars identify *perceived honesty* or integrity of the trustee. In this paper, perceived honesty implies that the local council is perceived to keep commitments and tell the truth (McKnight et al., 2002; Kim, 2005). Now that the concept of perceived 'trustworthiness' has been made clear, the next section elaborates on the definition and concept of 'transparency'.

Transparency: Watching Government from the Outside

Transparency is a nebulous concept. Definitions, if available at all, are mostly metaphorical and very general - they talk of 'lifting the veil of secrecy' (Davis, 1998) and 'the ability to look clearly through the windows of an institution' (Den Boer 1998: 105). Nevertheless, nearly all definitions of government transparency have one element in common: they refer to the extent to which an organization reveals relevant information about its internal workings, such as decision processes, procedures, functioning and performance (Wong & Welch, 2004; Curtin & Meijer, 2006; Gerring & Thacker, 2004). This includes the following:

- A component about the active disclosure of information by an organization.

- Allowing external actors to assess the organization's internal workings or performance.

This leads to the following definition for transparency, which will be used in this paper:

Transparency is the active disclosure of information by an organization in such a way as to allow the internal workings or performance of that organization to be monitored by external actors.

This paper investigates *government* transparency mediated through the Internet. Information and Communication Technologies, and the Internet in particular, are great catalysts of disclosure of government information to the public. Meijer (2009) denotes transparency mediated through the Internet as 'computer-mediated transparency.' The proposed definition in this section refers to transparency of organizations in general, which is still rather generic, the next section specifies dimensions that are particularly relevant to government transparency and how this concept of government transparency is used in this study.

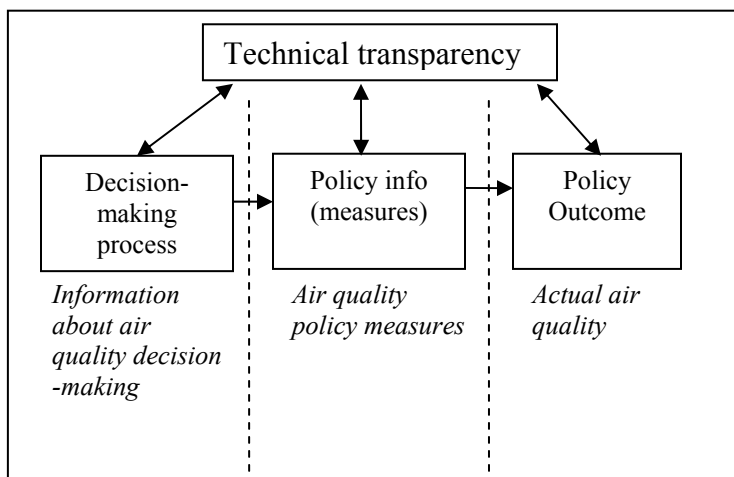
Conceptualizing Government Transparency

Traditionally, scholars interested in computer-mediated government transparency have developed measurement instruments that focus on the technical aspects of government websites. Most prominently, the Cyberspace Policy Research Group developed a Website Attribute Evaluation System (WAES) which has been widely used (in adapted form) by researchers such as Demchak et al (1998), La Porte (1999) and more recently, Pina et al. (2007). These authors have focused mainly on the ownership of government websites (i.e. is a government organization involved and in control of website content?). Additionally, they focus on the presence of very basic information about the government organization. For example, availability of e-mail addresses, information about the organizational structure, or the presence of a senior official's vision of the organization's future. They focus only in part on the issue of transparency, such as whether reports or laws are available online and if they are searchable through a search engine. This focus on the technical means of improving government transparency has the advantage that it can be generalized more easily to other websites. However, it does not say a great deal about the information on the website itself. In contrast, this paper will focus not on the technical means of transparency,

but on the actual content itself. First, however, the concept of transparency will be specified in more detail.

One way to model transparency is to conceptualize it using a ‘process and event’ model, where a government organization discloses information during different stages in a policy process. This transparency model has been developed by Heald (2006) and has been adapted for the sake of this study (see Figure 1).

Figure 1



Three steps in policy making can be made transparent. First, a process can be made transparent. One of the major processes in policy making is the decision-making process that precedes the adoption of policy measures. Important criteria regarding the ‘process and event’ type of transparency are the degree of openness about the steps taken to arrive at a decision, and the rationale behind a decision. This decision-making transparency has been conceptualized extensively by Drew and Nyerges (2004). Second, the government may disclose information about the policy under development, such as the measures and plans taken to combat a certain problem. Third, the policy outcomes or results of government policy are disclosed.

This paper focuses on the first of these processes, decision-making transparency, by investigating the disclosure of local council minutes. While the disclosure of council minutes is not equivalent to transparency about the

complete public decision-making process, it can be considered to be a snapshot or reflection of public decision-making.

In this paper, the degree of transparency is determined by the amount of information available in the local council minutes. The concept of decision-making transparency is narrowed to adapt it for the experiment. It is narrowed in the sense that it does not focus on the full process of public decision-making, but merely on certain parts of public decision-making materialized in the local council minutes. The measurement of the degree of transparency will be discussed in further detail in the “Measures” section. First, however, two theoretical perspectives on public decision-making are elaborated, in order to formulate hypotheses.

Two Perspectives on Public Decision-Making

Increasing the transparency of council meetings by making the minutes publicly accessible allows citizens to see what the council is actually deciding. Two main views on public decision-making exist in the literature: the traditional perspective emphasizes the rationality of decision-makers, and the second perspective sees decision-making as an irrational, political process. The aim of this section is not to give a full overview of all existing literature on decision-making - the goal is to make an argument by reviewing two ideal types of public decision-making: a model of bounded rationality and a political, irrational process.

The first view consists of rationality and bounded rationality. The most extreme and traditional view of public decision-making is this rational process. First, all values are listed; for example, optimizing public health, a prospering economy, and no traffic jams. Second, policy outcomes are rated by how efficient they are in attaining these values. Third, the values are weighed against each other, based on calculations. The next step is to list all possible policy alternatives and their hypothetical effects, relying heavily on scientific policy theories. Finally, based on this, a choice is made that would maximize the selected values. Hoogerwerf (1990) and Vedung (2000) are advocates for this rational approach of policy and public decision-making. This view assumes a rational and calculating individual, an assumption borrowed from rational choice theories (e.g. Homans, 1961; Blau, 1964; cited in: Scott, 2000).

Advocates of the concept of ‘bounded rationality’ criticize this idea by stating it to be a simplification of reality: people in normal life are rational to only a limited extent. This idea that people are not completely rational is long established and emphasizes that individuals and groups simplify decision-making problems because of the difficulty of considering

all alternatives and information (March, 1978; Lindblom, 1959). Since decision makers lack the ability and resources to find the optimal solution, they apply their 'rationality' only after having greatly simplified the choices available. Therefore, it is said that decision makers aspire to develop satisfactory, but not necessarily optimal, solutions (Simon, 1957).

This has consequences on how public decision-making should be viewed. The aim of rational decision-making is to select the alternative that results in the preferred set of all the possible consequences. On the other hand, public decision-making is characterized as incremental and 'muddling through' (Lindblom, 1959). Decisions are by no means completely rational, as administrators or council members cannot have complete information.

The work of Stone (2001) refutes the ideas of rationality and bounded rationality and goes one step further. She argues that decision-makers are by no means rational and that the public decision-making process is purely a political one. Moreover, Stone (2001) argues that 'facts' in decision-making are not objective, as they are strategic representations of the interests of stakeholders in the public decision-making process. Further, Stone states that despite the irrational and incremental nature of public decision-making, it is presented to the public as if it is rational, and the model of 'rational choice' is being used. This could, therefore, have profound consequences on how the public perceives local government, if they are able to take a look 'behind the scenes'.

Building on Stone's idea, the general image of public decision-making as being rational, or at least partly rational, may be threatened if citizens take advantage of transparency in decision-making to 'check reality.' This image of public decision-making mainly regards the perceived competence of the council and whether they appear to make rational decisions. Hence, if this image is damaged by the reality of decision-making, which is non-rational, the citizens' perspective of the council's competence is expected to be negative.

H1: Transparency, on a high and a low level, negatively affects the perceived competence of a local council.

Although transparency of a decision-making process is expected to negatively affect the perceived competence of a government organization, the contrary might be true for perceived honesty. Giving full information indicates that there is nothing to hide, hence improving perceived honesty.

H2: A high level of transparency positively affects the perceived honesty of a local council.

No specific expectations about the third dimension of perceived trustworthiness, perceived benevolence, can be distilled from the theory or views on public decision-making mentioned above. Perceived benevolence is not expected to be affected by a high level of transparency. Disclosing information about a decision-making process is only loosely connected to the intentions of a government organization. Since benevolence concerns the intentions of a government organization – i.e., its willingness to act in the interest of its citizens – no effect of transparency is expected.

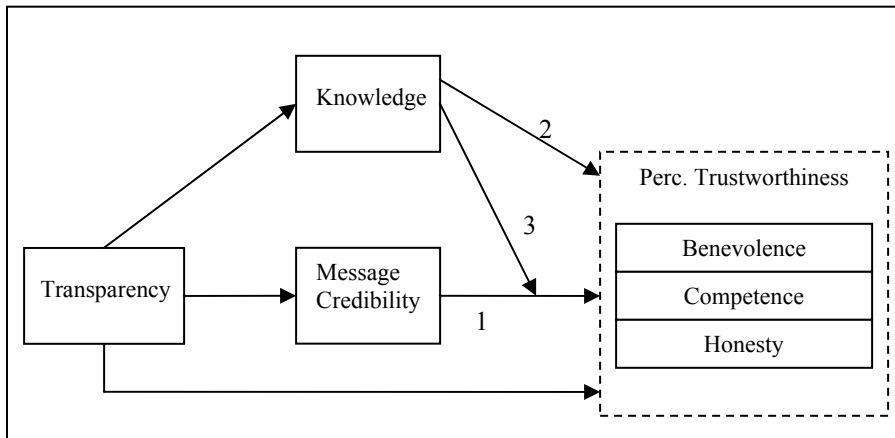
H3: Transparency does not affect the perceived benevolence of a local council.

Besides these hypotheses distilled from decision-making theories, the literature on website credibility and citizens' attitudes towards government distinguishes between two concepts that mostly play a mediating role in the relationship between trust and transparency. This is discussed in the next section.

The Role of Message Credibility and Knowledge

A second aim of this paper is to highlight the mechanism which determines how transparency leads to less or more perceived trustworthiness. Figure 2 depicts a proposed research model; it is expected that both knowledge and message credibility partly influence the relationship between transparency and perceived trustworthiness. Knowledge presumably alters people's judgement criteria, while message credibility is thought to influence transparency and trust. This is further explained in the two following sections.

Figure 2: Research Model



Message Credibility

Rosenbloom (2000) addresses a relevant issue regarding trust in online interactions, as is the case between Internet transparency and trust. According to him, ‘online interactions represent a complex blend of human actors and technology’ (2000: 2). According to Rosenbloom it is not immediately clear what or whom people trust in the case of online interactions. For example, do people engage in a trusting relationship with the system, website designers, online organizations?

To determine perceived credibility of web-based information, Flanagin and Metzger (2007) distinguish between message credibility, site credibility and sponsor credibility. *Message credibility* is dependent on aspects of the message itself, e.g. information quality and accuracy. *Site credibility* refers to site features such as the visuals, or the amount of information displayed on the website. *Sponsor credibility* depends on perceptions of the website sponsor, in our case the government organization. For the purposes of this study the distinction between ‘message’ and ‘sponsor’ credibility is especially relevant, since it is the message (i.e. council minutes) that is manipulated in the experiment carried out in this study. This experimental manipulation carried out in this study might not only affect the government organization but also the credibility of the message on their website (Arrow 1 in Figure 2). Therefore, there is a difference between the trust people have in the information provided to them, and their trust in the government organization. The latter is the

dependent variable in this study, but the message is directly observable by website visitors as they read it on the website. As such, website visitors try to form a perception of the trustworthiness of a government organization based on the message they read. This means the causal mechanism between transparency and trust could be partly affected by the credibility of the message on the website.

Knowledge

Specific knowledge about a government organization could have a moderating effect (Arrow 3 in Figure 2), hence influencing the relationship between message credibility and trust. It is expected that transparency leads to more knowledge about the government agency, but besides a direct mediating effect, knowledge about a government organization could also have an indirect effect by altering the relationship between message credibility and perceived trustworthiness. According to Mondak et al. (2007), knowledge helps citizens to develop more specific criteria to make judgments about the object of which they have specific knowledge. For example, by having access to information about public decision-making, people will judge the organization based on their knowledge of this process, rather than basing their opinion on a general perception of government at the national level. In this paper specific knowledge about the content of the council's decision-making is distinguished from more general knowledge about politics and policies of local government (see "Measures" section for details about how the knowledge construct was measured).

Method

The Case of Local Air Quality: The Dutch Context

This paper focuses on decision-making as it pertains to local air pollution. Policies regarding air pollution can impact citizens' lives, not only in terms of where buildings and roads are constructed, but also in terms of personal health. Air pollution affects several public interests: public health, environment and economic interests. This study focuses on the decision-making efforts regarding air quality policy to combat air pollution in a large Dutch municipality. Decisions relating to air quality at the local government level include (for example) whether they should impose traffic restrictions, or build more roads to improve traffic flows. Although most citizens are not very knowledgeable about air pollution, some action committees in

neighbourhoods are active in their efforts to improve city regulations and policies about air quality by influencing decision-makers.

The topic of air quality in Dutch cities receives a considerable amount of local and national media coverage in the Netherlands, including reports about municipalities that are failing to meet standards, and the dangers of bad air quality. The relevance of air quality is highlighted due to the high car density in the Netherlands: on average, there were 214 cars per square kilometre in 2008, compared to 55 per square kilometre in Europe as a whole (Statistics Netherlands, *CBS*). This is the highest car density in the world. Although cars are not the only cause of bad air quality, they are one of the main producers of fine dust and nitrogen dioxide in the air.

Governments in Europe are obligated to meet EU directives² about air quality, and local governments in the Netherlands are obligated to develop plans to combat air pollution. Until all air pollution levels in a municipality are below the criteria mentioned in the EU directives, municipalities have to report on air quality regarding the levels of nitrogen dioxide, fine dust particles, benzene and carbon monoxide. Important decisions about air pollution plans and reports take place in the local council, and transcripts of the meetings in which these are discussed must be, according to local law, disclosed to the public.

Trust in government in general is a diffuse concept that is potentially influenced by several factors, such as the economy, policy failures or scandals (Nye et al., 1997; Peters, 1999) and is therefore difficult to link with transparency. By selecting a specific government organization instead of 'trust in government' in general, the relationship between transparency *of* this government organization and trust *in* this government organization is isolated from exogenous factors that might play a prominent role concerning trust in government in general (see Bovens & Wille, 2008; Nye, 1997). Therefore, a purer effect of transparency is measured and, moreover, it is assumed to be more likely that transparency of a government organization actually influences trust *in this* particular organization.

Design

The central question in this paper implies the existence of a causal effect of a condition, 'transparency', on 'trust' in government agencies. To examine this, this study has used an independent 1x3 experimental design. This means that three group of participants were used in the experiment and were separately investigated on one independent variable. The three groups varied

² These are: 96/62/EG, 1999/30/EG, 2000/69/EG, 2002/3/EG, 2004/107/EG.

on the degree of transparency, with different amounts of information given to them about the public decision-making process. The dependent variables were the three dimensions of perceived trustworthiness: perceived benevolence, perceived competence and perceived honesty.

Sample

The sample consisted of a total of 156 respondents, including first and second-year college students (N=81), a group of professional masters students (N=18) and 57 randomly approached visitors at the Population Affairs Department of the municipality of Utrecht. The latter participants were enticed to participate in the experiment by being offered a voucher. The design and group distribution is shown in Table 1. The variables in Table 1 are those that might influence trust in a specific government organization, and thus that might distort the relationship between transparency and trust. Also, some variables are not equally distributed among groups. To avoid distortions, these variables are first checked for significant effects on the dependent variables, and if necessary, they are controlled by incorporating them as covariates in the analysis.

Table 1: Sample composition

	Stimulus	Measurement	% male	Av. Age	% highly educated	% religious	Pol. Pref (% l.w.)
No transparency N = 43		O ₀	38.6	25.6	18.2	50	50.0
Low level transparency N = 57	X ₁	O ₁	43.9	32.6	40.4	46.4	50.9
High level transparency N = 55	X ₂	O ₂	50.9	29.9	38.2	45.5	41.8
<i>Total</i>			<i>44.9</i>	<i>29.7</i>	<i>33.3</i>	<i>47.1</i>	<i>47.3</i>

Materials and Procedure

A total of three groups were distinguished in the experiment. Every participant was randomly assigned to one of the groups by a link to a website on their written instruction form (for the ‘no transparency group’ there was no link at all). Group 1 was assigned to fill out a questionnaire without visiting a government website (i.e., not using the available transparency). The low-level transparency group (group 2) and the high-level transparency group (group 3) were assigned to visit the website that showed the council’s minutes. However, the website visited by group 2 was adapted for the sake of the experiment, and showed much less information than the (unadapted) high-transparency website with the full council minutes that was visited by group 3.

The two different websites used in this experiment contained a short explanation about how the municipal council makes decisions, and a selection from the council minutes about the decision-making regarding a plan to reduce air pollution in the city.

Before the experiment started, all participants were instructed orally about what they could expect. They were told that they were participating in a study to investigate the user-friendliness of government websites, instead of the real goal of the study (i.e., investigating the effect of transparency on trust). Also, participants were told that they first had to follow written instructions and then fill out a questionnaire.

The written instructions specified exactly what participants could read within the website, to ensure that everyone within each group read the same sections during their visit, and to increase comparability between the groups. On the written instructions, people had to answer four questions about the comprehensibility of what they read in order to ensure that they read the particular sections on the website. After they had completed the instructions (and read the website) participants were instructed to close their web browser. Next, they were instructed to fill out a questionnaire on paper. After completing this questionnaire, the participants were debriefed and told about the real goal of the study.

Measures

As described in the section “Three dimensions of perceived trustworthiness,” three dimensions of perceived trustworthiness were distinguished and thus were separately measured. Participants were asked specifically about the perceived benevolence, competence, and honesty of the government organization with regard to the topic (air quality policy).

All dimensions were measured on a five-point scale and are derived following past research (McKnight et al., 2002). Benevolence was measured by the extent to which the government organization was perceived to be doing its best to help citizens (1), to be acting in the interest of citizens (2), and to be sincerely interested in the well-being of citizens (3). The Cronbach's alpha for this dimension was 0.77. Cronbach's alpha is an index indicating the extent to which separate items constitute an underlying dimension. An alpha of 0.60 or higher is considered to be sufficient to group items into one dimension. Competence was measured by the extent to which the government organization was perceived to be capable, effective, skilful and professional (Cronbach's alpha = 0.86). Honesty was measured by perceived sincerity, perceived honesty and the extent to which the government organization was thought to honour its commitments (Cronbach's alpha = 0.83).

In addition, people were asked in the questionnaire to assess their level of knowledge about air quality policy in the municipality. On a five-point scale (1 = very little knowledge, 5 = very much knowledge) they assessed their own knowledge about the air quality policy, the council minutes regarding the development of the air quality policy, and their insight into the decision-making process regarding municipal air quality policy (Cronbach's alpha = 0.82). Their general knowledge about local government was measured by asking them to self-assess their knowledge of politics and the policies of local government in general.

Message credibility was measured by asking the participants for their perceptions regarding the extent to which they perceived the information they had read to be complete and accurate (see Flanagan & Metzger, 2007). Cronbach's alpha for this measure was 0.77.

Transparency about the municipal council's decision-making was measured with regard to the extent of the information that was revealed. The decision-making process consists of several contributions from people within the council. The limited transparency group was only shown the first two lines of five paragraphs from several political parties. Participants in the full transparency group were shown the full contribution. Below is an example of a phrase from a high level/full transparency³ selection:

³ Translated from the original Dutch text, some parts are left out to make it less lengthy. The sentences are kept as close to the original format as possible, including those that are a bit twisted in the original. The examples still give a good idea of what this particular type of transparency looks like.

- *Mrs. [name]* argues that the Air Quality Action Plan indicates that the municipality wants to improve air quality. On several points this must be made more realistic. What is the status of this document? Will this lead to a decision regarding the realization of the plans, or will they be developed within the projects? [...]
The ambition of the plan is disappointing in some aspects, for example regarding the fleet of cars. Concerning the environment, natural gas for our party is not the best option, why was hybrid energy not thought of? The same applies to buses; why were alternative energy sources not thought of?

An example of a limited / low level of transparency:

- *Mrs. [name]* argues that the Air Quality Action Plan indicates that the municipality wants to improve air quality. On several points this must be made more realistic.

Results

The analysis is conducted in two stages. First, the research model (Figure 2) is tested by carrying out a one-way multivariate analysis of covariance (MANCOVA) to compare the results between the three levels of transparency on the three dimensions of perceived trustworthiness.^{4,5} Second, a more specific group comparison is conducted to test the hypotheses. Before attempting any further analysis, however, the experimental set up was checked. In other words, do participants perceive the experimental treatment in the way the researcher intended? This analysis showed that participants perceived the highly transparent website to be the one that contained the greatest amount of information. It differed significantly from the no- and low-transparency group ($t(89) = 2.007, p <$

⁴ Covariates included are: Trust in government in general, gender, specific knowledge and message credibility. Other control variables (mentioned in section 7.3) were excluded from the analysis since they appeared not to have a significant effect on the dependent variables.

⁵ The MANCOVA is followed-up by contrasts comparing the three level of transparency with each other. Box's *M* was not significant, indicating that covariances throughout the experimental groups were homogeneous. In addition, no problems with multicollinearity were detected and no outliers were evident so MANOVA was considered to be an appropriate analysis technique. First, the overall means of each group for each dependent variable is displayed in Table 2.

0.05). In other words, the supply of more detailed information in the experiment resulted in a perception of more information by participants.

As argued earlier in this paper, both specific knowledge about the government organization under observation and message credibility might play a partly influential role on perceived trustworthiness of the local council. The first test determines whether transparency is a predictor for these two variables. Then, the effect of these variables on perceived trustworthiness will be statistically analyzed. Both analyses include covariates, which control for their individual effects on the dependent variables. As a result, the relationship between an independent and dependent variable is a ‘purer’ measure, since confounding effects of the covariates are controlled. However, because a great deal of possible covariates are available and too many covariates weaken the power of the statistical test, non-significant covariates are deleted one by one, until only significant ($p < 0.05$) covariates are left (see Trochim & Donnelly, 2001).

Two separate ANCOVA analyses were carried out to assess the effect of transparency on specific knowledge and message credibility. The findings indicate a significant positive relationship between both transparency and message credibility ($F = 5.27, p = 0.024$) and transparency and specific knowledge ($F = 3.44, p = 0.035$).⁶ For the latter, it should be noted that although transparency had a significant impact on specific knowledge about the council for this particular topic (air quality policy), a general knowledge about local politics was the most important driver.

The next step to test the model depicted in Figure 2 is to test whether message credibility and specific knowledge affect perceived trustworthiness. A One-way MANCOVA was carried out to test this, which is a test used to compare the differences between groups on multiple dependent variables, while controlling for one or more other variables (covariates).⁷ The statistical procedure prescribes that first the overall multivariate effect is assessed. If these turn out to be significant we may proceed to test group differences.

The overall effect of transparency on all three dependent variables – perceived benevolence, competence and honesty – appeared to be significant ($F=3.08; p = 0.006$). Therefore, testing group differences for each dimension

⁶ Significant covariates for information credibility: Trust in government ($F=15.77, p < 0.001$) and Previous Visit to website ($F=4.77, p < 0.05$), Adjusted R-square: 0.175. Significant covariates for specific knowledge: ideology ($F=4.11, p < 0.05$), Age ($F=7.97, p < 0.01$), predisposition to trust others ($F=6.11, p < 0.05$), general knowledge of government ($F=42.06, p < 0.001$). Adjusted R-square: 0.346.

⁷ Again, Box’s M was not significant, no problems with multicollinearity were detected and no outliers were evident.

of perceived trustworthiness separately is allowed. The results are shown in Table 2.

Table 2: Multivariate effects on perceived benevolence, competence and honesty

	<i>Perceived benevolence</i>		<i>Perceived competence</i>		<i>Perceived honesty</i>	
	<i>F-ratio (p)</i>	<i>Eta²</i>	<i>F-ratio (p)</i>	<i>Eta²</i>	<i>F-ratio (p)</i>	<i>Eta²</i>
Transparency	1.75	.024	7.66**	.097	3.787*	.050
<i>Modelled covariates</i>						
Information credibility	9.45**	.062	22.14***	.134	9.57**	.063
Specific knowledge	4.27*	.029	8.28**	.055	1.32	.009
Message credibility* specific knowledge	4.29*	.029	10.04**	.066	1.09	.008
<i>Control variables</i>						
Trust in government in general	23.47***	.141	28.54***	.166	43.79***	.234
Gender	2.92	.020	0.24	.000	9.48**	.062
Previous Visit (dummy)	0.76	.005	2.23	.015	2.03	.014
Intercept	0.29	.002	1.47	.010	0.07	.000
<i>Adjusted R²</i>	.247		.368		.402	

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. *F-ratios and partial eta-squared are displayed.*

Table 2 presents three models: one for each dimension of perceived trustworthiness. The adjusted r -square value at the bottom of the table represents the extent to which all variables in the analysis are able to explain the outcome of perceived benevolence, competence or honesty. The eta-square on the right of each column is an unadjusted measure for the part of variance explained by a specific predictor.⁸ The adjusted r -square for perceived benevolence is acceptable for social science using constructs like trust (0.247). The explanatory value for perceived competence and honesty

⁸ Ranging from 0 (variables explain nothing) to 1 (variables explain everything).

are even higher (0.368 and 0.402). Transparency has the most profound effect on perceived competence ($p = 0.001$). A somewhat weaker effect on honesty ($p = 0.025$) is detected, yet perceived benevolence remains unaffected.

Further, Table 2 provides evidence that message credibility is important with regard to all dimensions of perceived trustworthiness. Parameter estimates (not displayed in the table) show that message credibility has a positive impact on these perceptions. Hence if people perceive the message on the website to be more credible, they tend to perceive the local council 'behind' the message to be more benevolent, competent and honest. Specific knowledge about the local council only has a slightly positive effect on benevolence and competence. Perceived honesty is not influenced by the degree of specific knowledge about the local council. The same is true concerning the interaction effect between knowledge and message credibility. This means that the amount of specific knowledge about the local council not only influences perceived trustworthiness directly, it also negatively affects *the relationship* between message credibility and perceived trustworthiness. In other words, when people possess more specific knowledge, they will rely less on perceived message credibility when coming up with a judgment of the government organization.

The model of perceived benevolence appeared to have the least explanatory power. This was also the only dimension not to be significantly affected by the degree of transparency. Benevolence is an ethical dimension of perceived trustworthiness regarding the intentions of the local council, which may be more difficult for people to assess based only on website information. Although the modelled covariates prove to be significant, they have less predictive power compared to the perceived competence model. In addition, trust in government in general has slightly weaker significance than in the two other models.

Trust in government in general proves to be the single strongest predictor for all dimensions of perceived trustworthiness, and has especially great explanatory power for perceived honesty ($\eta^2 = 0.234$). Therefore, people who believe that government in general is honest, competent and benevolent will ascribe this quality to the local council as well. The second control variable that affects honesty is gender. Women tend to be more trusting towards government than men (see also Table 2). Previous visits to the website of the municipalities appeared not to have any significant effects on the individual dimension of perceived trustworthiness.⁹

⁹ The effect of the group of students was tested by adding it as a dummy variable to the analysis, which showed there was no significant difference in the level of perceived

In summary, perceived competence of an organization was affected by transparency. Perceived honesty was influenced by transparency directly, yet to a lesser extent than competence. Although perceived honesty was significantly lower in the ‘low level of transparency’ group, this dimension appeared to be deeply connected to a person’s predisposition to trust government in general. Also, gender was an important extraneous significant driver for honesty. In contrast with perceived honesty, the main sources of perceived competence were knowledge and information credibility. This seems to reflect the more utilitarian nature of competence, as opposed to the ethical character of honesty.

The variance found in both perceived honesty and perceived competence is explained rather well by the models. Adjusted *r*-squares of 0.402 and 0.368, are rather high for studies regarding hard to define concepts such as trust. For example, these *r*-squares are particularly high compared to large scale survey studies that examine the relationship between e-government usage and attitudes toward government, which reported *r*-squared values of approximately 0.1 and lower (see West, 2004; Welch et al., 2005).

This concludes the first part of the statistical analysis, which shows how transparency affects perceived trustworthiness. The relationship is partly influenced by message credibility and specific knowledge. Trust in government in general appears to be a strong predictor for all cases of perceived trustworthiness. Despite this strong effect on people’s more general image of government, transparency has a rather strong significant direct effect on perceived competence and a somewhat weaker effect on perceived honesty.

Next, the hypotheses formulated earlier in this paper are tested using a so-called post hoc test, which allows researchers to make comparisons between all groups for the dimensions that were significant in the preceding MANCOVA test (i.e. perceived competence and honesty, see results in Table 2). The results of the group comparisons are shown in Table 3.

trustworthiness of students compared to people recruited at the Public Affairs Department. Since this variable was non-significant it was later removed from the test, in line with the proposed procedure of removing non-significant covariates until they are all significant (Trochim & Donnelly, 2001).

Table 3: Group comparison of perceived benevolence, competence and honesty

Dependent Variable	Level of transparency	Mean (SE)	Vs. Low (1)	Vs. High (2)
Perceived Benevolence N=40	0. No transparency	3.62 (.10)	n.s.	n.s.
	1. Low level of transparency	3.46 (.08)		n.s.
	2. High level of transparency	3.34 (.08)		
Perceived Competence N=45	0. No transparency	3.61 (.09)	.386 (.11)**	.495 (.13)***
	1. Low level of transparency	3.23 (.07)		n.s.
	2. High level of transparency	3.12 (.08)		
Perceived Honesty N=42	0. No transparency	3.46 (.10)	.317 (.12)*	n.s.
	1. Low level of transparency	3.15 (.07)		n.s.
	2. High level of transparency	3.15 (.08)		

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. Means displayed, standard errors in parentheses. Covariates appearing in the model are evaluated at the following values: Previous visit = 0.70, Specific knowledge = 1.78, Trust in government in general = 3.40, Message credibility = 3.57, Gender = 1.55 (1=man, 2=woman).

As Table 3 shows, the largest differences are found when comparing no transparency versus low and high levels of transparency within the competence dimension. Within the perceived honesty dimension, only the low- and no-transparency groups differed significantly. Although the mean difference between no- and high-transparency is nearly as large, it has less strength because of the greater standard error (SE).

The second observation is that perceived competence and honesty levels are actually *lower* within the transparency groups than in the no transparency group. This means that the participants who read about the decision-making process of the local council on the website perceived the council to be less competent than the participants who did not read the information. Hypothesis 1 stated that transparency, on a high and a low level, would negatively affect the perceived competence of a local council. As such, hypothesis 1 is confirmed. Further, participants who experienced a low level of transparency thought the local council was less honest. Hypothesis 2 suggested that a high level of transparency positively affects the perceived honesty of a local council. This hypothesis should therefore be rejected. In addition it was hypothesized that transparency would not affect

perceived benevolence; this null-hypothesis can be confirmed, as no significant difference was found for this variable.

Discussion

This article has sought to explore the effect of transparency of local public decision-making on the perceived trustworthiness of the local council. One of the findings is that trust in government in general plays a major role in the perceived trustworthiness of the local council.

This appears to be the major driver behind perceived trustworthiness of the local council, and it especially affects perceived honesty. It is also an important driver behind perceived benevolence, which is not influenced by transparency and only slightly by message credibility and specific knowledge. Benevolence refers to whether the local council is willing to act in the interest of citizens, i.e. it concerns the intentions of the council. This is an ethical trait that is difficult to assess from local council minutes, and reflects what people believe to be the nature of government (acting in citizens' interests or in their own interests).

Hence, the levels of perceived trustworthiness of the council are largely determined by people's fundamental pre-existing impressions of government in general. Van de Walle (2004) examined the connection between the performance of government organizations and trust in government in general. He concluded that general trust in government is not influenced by the performance of a particular government organization, but that it is grounded in a more general attitude of people towards government. This argument is in line with our findings regarding perceived honesty and perceived benevolence. These are, in contrast to perceived competence, ethical and very fundamental perceptions of citizens about government. This also explains why knowledge did not have a significant effect on perceived honesty; this dimension does not increase with more or less knowledge, and it is presumably determined by general beliefs about government.

Consequently, it is possible to conclude that cultural context is important for the perceived trustworthiness of the local council. For example, the Netherlands has traditionally been a country where citizens have a high level of trust in government, whereas in the US, over the past few decades, citizens have tended to distrust government (Nye et al., 1997; Tolbert & Mossberger, 2006). For example, a cultural explanation for the low level of trust in the US might be the emphasis and increasing importance of the individual and the consequent disintegration of communities and family (Nye et al., 1997; Putnam, 2000).

Having said this, even when the effect of trust in government in general is taken into account, we have shown that transparency *does* alter perceived competence and – to a smaller extent – perceived honesty in the local council.

First, the local council was perceived to be less competent after people had read its minutes. Transparency of local council minutes does not show public decision-making as a smooth rational process, but rather brings out the bickering and ultimately political character of this process (see Stone, 2001). This touches on the dimension of perceived competence. Perceived competence is a dimension of perceived trustworthiness that is *utilitarian* and more concrete than the other dimensions (honesty and benevolence), and which may therefore be easier for people to assess in this single interaction. This outcome regarding perceived competence is in line with the argument of Welch et al. who suggest that ‘individuals with a greater desire to interact with government go to Web sites; however, once they use them, they are disappointed’ (Welch et al., 2005: 387).

Regarding the use of government websites, the issue is to what extent these websites, and especially council minutes, are being read by citizens. For everyday local government the actual negative effect on their perceived competence might be canceled out by this.

Perceived honesty was negatively affected by a low level of transparency, although a positive effect was hypothesized. Giving full information about council minutes seems only to meet the expectation that this is part of a normally functioning government. This is in line with research by Piotrowski and Van Ryzin (2007) who investigated US citizens’ expectations regarding transparency of local council proceedings. On the question ‘Do you think citizens should or should not have access to transcripts of city or town council meetings[?]’, the average score was 4.47 on a five-point scale. This high citizen demand for transparency reflects the expectation they have on this particular topic.

It seems like disclosure of local council minutes is a *conditio sine qua non* for trust in the local council. In Western democracies transparency of public decision-making has been a long-established form of transparency, and it might be concluded that it is perceived to be the standard. Combined with the emergence of the Internet, which has increased people’s expectations and demands regarding access to a great deal of government data (Shapiro, 1999), transparency of council minutes might be the least people expect from local government. In addition, disclosing minutes on municipal Web sites is not something new; it is a common practice for municipalities in the Netherlands.

A part of the effect of transparency on perceived trustworthiness is influenced by message credibility. Participants who encountered a high level of transparency found the information more credible than those who read the council minutes at the lower transparency level. Higher message credibility is related to more positive perceptions of the council's benevolence, competence and honesty. However, this cannot compensate for the overall negative effect of transparency on perceived competence and partly on perceived honesty.

The second influential variable in the model is specific knowledge about the local council, which has no effect on perceived honesty, a small effect on perceived benevolence and a moderate effect on perceived competence. Also, knowledge weakens the relationship between message credibility and perceived competence and benevolence. Hence, the effect of knowledge is twofold. The level of specific knowledge was slightly improved by transparency and was largely predicted by the general level of knowledge people already possessed. This means that people who already know a great deal about politics and policy in a municipality are more likely to learn from the council minutes. These people are also more trusting regarding the council's benevolence and competence.

The moderating effect, i.e., the influence of knowledge about the council on the relationship between message credibility and perceived trustworthiness, is in line with the findings by Mondak et al. (2007). They discovered that if people acquire more knowledge about the U.S. Congress, they develop more specific criteria to make judgments. In the case of transparency and trust, knowledge *shifts* the way in which trustworthiness is affected - less by message credibility, more based on knowledge. People are less likely to assume that a local council is willing to act in the interests of its citizens, based on credibility, but this perception is based on what people think they know of government organization. Thus specific knowledge becomes the 'primary driver' of people's thoughts in this case (Bigley & Pearce, 1998).

Two limitations of the design of this study are discussed in the next two paragraphs: the external validity of the experiment and one problem of causality. Regarding external validity, the aim of experiments in general is not to achieve a perfect external validity but to try to assess causal relationships and generalize the mechanism at work. The results of this study are hardly generalizable to the total population in the Netherlands. Nevertheless, if we compare the percentage of highly educated participants in the sample to the general population of the Netherlands, these percentages are comparable: 33.3 percent in the sample versus 26.4 percent of the population in 2008 (Source: CBS). The average age of our sample is 29.7

years, which is nearly 10 years younger than the average of the population (38.65 in 2005, CBS). This is due to the bias towards students in the sample. Still, this might not be problematic with respect to external validity, as Van Dijk (2008) showed that people who use government websites are relatively young compared to the total population. Having said this, it should be noted that the main goal of this study – being an experiment – is not to achieve a perfect external validity, but to closely examine a *theoretical effect* by comparing relatively homogeneous groups while statistically controlling for possible extraneous variables. However, we should be careful about making broad statements about the relationship between transparency and trust. Also, the national context restricts the external validity of our results. The Netherlands has traditionally been a country with high levels of trust, whereas in (for example) the U.S., people tend to distrust government more.

The second issue is that the *causality* of the effect of message credibility on perceived trustworthiness can only be assumed theoretically. Whether higher levels of message credibility lead to higher levels of perceived trustworthiness or vice versa cannot be assessed using this experiment alone. Presumably a higher level of perceived trustworthiness also causes people to think that the information is more credible. In this sense a feedback relationship could exist between perceived trustworthiness and message credibility.

Conclusion

In this paper, we have investigated the central question: ‘Does Internet transparency of public decision-making affect citizen trust in government?’ To analyze this question, we conducted an experiment concerning the transparency of the meeting minutes of a local council in the Netherlands. The results offer evidence for a limited but significant negative effect of transparency on the perceived competence and perceived honesty of a local governmental organization. Trust in government in general was the major driver for all three dimensions of perceived trustworthiness. Further, message credibility and increased specific knowledge about the local council partly moderated this effect. Specific knowledge also weakened the relationship between message credibility and perceived trustworthiness. Although this study is obviously subject to some limitations regarding statistical generalization (see “Discussion” section), this conclusion discusses what could be the broader implications of these findings on a theoretical level.

Public decision-making is not rational, though it may appear to be to the general public (Stone, 2001). It is not a smooth process in which all

values and solutions are listed, weighed and then chosen. It is incremental, and it is a process that might involve petty arguments, a lack of resources and information: the ‘optimal’ solution cannot be determined objectively. Hence, the expectation of rationalism in public decision-making is not met and can never be met (see Lindblom, 1959; Stone, 2001).

This apparent gap between expected rationality and the reality of bounded rationality may lead to less trust in government. According to Bovens (2003), demystification of government is an important price we pay for increased transparency. Transparency could contribute to political cynicism and citizen trust in government might decline. As a result, while people may expect the local council to be transparent, in the end there seems to be a gap between public expectations of rationalism and the reality shown through transparency. The reality can reveal the local council is much more chaotic than might be hoped or expected, and public decision-making is, in Lindblom’s words, often a process of ‘muddling through.’

The effect of transparency should, however, not be overstated. This study offers insights into the magnitude of the effect of transparency. Although an effect of transparency is certainly present, people’s predisposition towards government in general predicts their perceived trustworthiness in this specific case much better, especially for ethical values such as benevolence and honesty.

That said, government transparency is considered to be a democratic value, an essential element for a high-performing and trustworthy government. From a democratic perspective, the ‘demystification’ of government, including political and incremental public decision-making processes, is a necessity. Yet transparency as an instrument to increase citizen trust in government, in this very specific organization of local government, seems to have failed to fulfil its promise.

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