How Increased Transparency in Decision-making Affects Perceptions of Legitimacy – the case of priority setting in public health care

Abstract

This paper explores, theoretically and empirically, the common assumption that transparency enhances perceived legitimacy, i.e. willingness to accept decisions and trust in decision-makers. Special attention is given to the case of priority setting in health care, a typical example of a policy area with contentious decisions where increased transparency is often called on as a cure against declining public trust.

The empirical analysis employs original data from a two wave web-based experiment with 1049 subjects. Manipulations included degree of information provided concerning the decision-making process and the reasons behind the decision, the type of decision-maker and degree of conflict. The results indicate that the relationship between transparency and perceptions of legitimacy is more complicated than often assumed. Implications and future research are discussed.

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Introduction

The quest for more open decision-making in both the political and the economic sphere has been a global trend for several years (Roberts 2006, Fung, Graham & Weil 2007). Described as “a notion of quasi-religious nature” (Hood 2006a) or a “a Swiss army knife of policy tools” (Haufler 2010), transparency has become a fashionable instrument for solving a wide range of problems of modern government such as inefficiency, corruption and bad performance.

So far, the transparency literature has primarily focused on how greater openness affects the ones being observed (see, e.g. Elster 1998, Chambers 2004, Etzioni 2004, Groseclose & McCarty 2001, Hood & Heald 2006, Lindstedt & Naurin 2010, MacCoun 2006, Naurin 2007, Prat 2006, Stasavage 2004, Vermeule 2009, but see also e.g. Grimmelikhuisen 2010, Stasavage 2007). Scholars as well as policymakers often argue or even assume, however, that increased transparency will not only improve decision-making and enhance efficiency, but also have positive effects on the public’s assessment of authoritative decisions, enhancing people’s willingness to accept outcomes of difficult decisions and increase public trust in decision-makers (see e.g. Hood 2006b, Heald 2006, Roberts 2006, O’Neill 2006, Coglianese 2009, Grimmelikhuisen 2010, Worthy 2010 for discussion). In other words, transparency is thought to be valuable since it can create a public belief that the decision-makers have the right to make the decisions and that the public should accept them, or what will be referred to as perceived legitimacy. This should be highly desirable from the governments’ point of view since voluntary compliance to laws and regulations makes it easier and less costly to govern (e.g. Levi et al 2009, Tyler 2006, Rothstein 2005, 2011, Blind 2006, Morrone et al 2009). There are, however, surprisingly few empirical studies to support the claim of a positive correlation between transparency and perceived legitimacy.

Building on de Fine Licht (2011) this paper reports the results from an experiment in which subjects from the general public are exposed to different degrees of transparency in decision-making concerning a decision of high importance for citizens, namely the allocation of scarce resources in health care. First, the concept of transparency is briefly discussed. After that, the theorized link between transparency and perceived legitimacy is presented, followed by a brief discussion of the issue of priority setting and its relation to the transparency debate. Thereafter the experimental design the empirical findings are presented. The final section discusses the results.

What do we mean by transparency in decision-making?

Despite an impressive history in philosophical and political thinking (see, e.g. Gossérès 2005, Hood 2006a) there is no agreed upon definition of the concept of transparency (Florini 2007). If definitions are available, they tend to be vague such as ‘lifting the veil of
secrecy’ or ‘the ability to look clearly through the windows of an institution’ (see Grimmelikhuijsen 2010) or simply that institutions ‘operate under public scrutiny’ (Gosseries 2006).

In a review of transparency in a historical perspective, Hood (2006a) claims that in the governance-related sense, which is the most used today, a typical definition of transparency is availability of information to the general public, and clarity about government rules, regulations and decisions. According to Oxford Dictionary of Economics for example (cited in Hood 2006a:4):

Transparency includes making it clear who is taking the decisions, what the measures are, who is gaining from them, and who is paying for them. This is contrasted with opaque policy measures, where it is hard to discover who takes the decisions, what they are, and who gains and who loses.

Transparency should probably not, however, be understood as something that is either present or not (Florini 1998). Rather, there are different types or degrees of transparency, which can have various effects on peoples’ perceptions. A useful distinction between “Transparency in rationale” and “Transparency in process” is provided by Mansbridge (2009). Transparency in rationale is, very simplified, that decision-makers offer some kind of explicit explanations for their actions and decisions. In practice, this should imply retrospective information about the decisions, which can either be available on request or proactively provided to the public, via press releases, information on web-sites or reports. Transparency in process on the other hand, means that the public has the possibility to observe the process by which the decision came about. This access to the decision-making process can imply that the decision-making arenas and forums are open to the public so they can actually witness decision-making in action, either by being present in person or via information technology such as web-cameras. Accessible can however also imply that the public has the opportunity to monitor and scrutinize the decision-making process and its outcomes afterwards, by being granted access to minutes, voting records or background information.2

A basic way of understanding transparency is thus that decisions are made according to clearly established rules and procedures and not by ad hoc processes, and that some information about these decisions and the internal decision-making procedures is revealed. Transparency in itself is still, however, a rather empty concept which needs to be filled with decisions, procedures and discussions to mean anything in practice.

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2 At least in practice, having the ability to follow the decision-making process often implies that one also gets information about the motivations for the decisions taken, therefore making transparency in rationale a component in transparency in process. “Transparency in process” should therefore probably be understood as more transparent than “transparency in rationale”. However, this continuum should be considered as an ordinal rather than an interval scale, as the different steps towards increased transparency can be very different.
Transparency as a means to increase perceived legitimacy

Why do we expect transparency to enhance perceived legitimacy of decisions and decision-makers?³

If we start with arguments for a positive correlation, one rather simple but intuitive hypothesis is that increased transparency will force decision-makers to behave better and therefore produce decisions of better quality. In other words, transparency leads to increased trustworthiness, which will lead to increased trust (O’Neill 2006). This means that the effect on those observing is dependent on the (positive) effect on those being observed. This mediated effect is certainly possible and not terribly controversial. If transparency actually produces better decisions, and the public perceives them as such, the public will probably tend to accept the decisions and trust the decision-makers to a larger extent. However, at least three broad theories provide some possible mechanisms for why transparency should increase perceived legitimacy which are not necessarily dependent on “better decisions”.

First of all, according to agency theory, transparency may reduce uncertainty about the agent’s behavior in situations characterized by moral hazard, thereby making the principal more confident in delegating powers to the agent (Holmström 1979). A principal-agent relationship contains information asymmetry to the agent’s advantage, both about the state of the world and the agent’s preferences, competences and actions. Letting the principal “see for itself” how the agent completes its tasks may reduce suspicion and therefore increase the perceived legitimacy of the agent, according to this perspective. In other words, open decision-making increases the chances for efficient accountability (Ferejohn 1999) which in turn should increase acceptance and trust.

Secondly, according to deliberative democratic theory, to observe or scrutinize the decision-making process can inform citizens of the facts in the case and the different normative values and worldviews defended by representatives (see e.g. Gutmann & Thompson 1996, Bohman & Rehg 2002, Elster 1998). This may lead to increased respect and understanding for the reasons behind a decision, which in turn may lead to higher levels of perceived legitimacy for both decisions and decision-makers.

Finally, according to procedural justice theory, the procedure by which a decision comes about may contribute to perceived legitimacy. The procedure is assigned a value in itself, which spills over to the evaluation of the decision, the decision-makers and the decision-making institutions. Social psychology research has indicated that people are more likely to accept decisions which are arrived at by a procedure that is perceived as just, and are more satisfied with authorities and institutions using perceived just procedures, also when controlling for the content of the decisions (Thibaut & Walker 1975, Tyler et. al. 1997, Napier & Tyler 2008, Tyler 2000, 2006, Grimes 2006). On one hand, transparency of the procedure is a prerequisite for the procedural justice effect as it is understood in social psychology. Only if people are aware of the procedure can they judge its fairness. On the other hand, openness is commonly considered a procedural value in itself (Birkenshaw 2006) since the shared principles underlying liberal democracy say that political institutions should be open and transparent rather than closed and secretive. Openness may thus increase public legitimacy in two

³ An extended presentation of potential transparency effects can be found in de Fine Licht & Naurin (2010).
ways, according to a procedural justice perspective; by clarifying procedures that are designed to be considered as just, and by increasing the chance that the procedures will be perceived as just.\footnote{Empirical research in social psychology focuses on perceptions of procedural fairness, that is, peoples’ opinions and beliefs about the procedure. Aspects of the procedure that have been found relevant as contributing to perceived procedural justice in the literature include impartiality, respectful treatment and opportunity for voice. What constitutes a just procedure is however a more complex and philosophically debated question, and it is not self-evident that a procedure designed to be just will be perceived as such by ordinary people.}

During recent years, a more critical approach to transparency and publicity has arisen (e.g. Chambers 2004, Heald 2006, Etzioni 2010, Coglianese 2009, Bauhr & Grimes 2011). Although most researchers recognize openness and publicity as a desirable democratic value and consider it an important component of representative democracy, more attention has been devoted to the possible costs and negative effects of transparency, as well as possible benefits of institutions that are not fully transparent.\footnote{This is of course not an entirely new perspective. Moore and Tumin (1949) in their “Some social functions of ignorance” for example argue that “not knowing” should not simply be viewed as something dysfunctional but also as a positive element in operating structures and relations.}

A first problem is, as for example Fenster (2006) notes, that the assumptions of transparency effects tend to rely on a rather simplistic model of communication in which the public (the receiver) awaits disclosure of information (the message) from the government or other decision-makers (the sender) and thereafter understands, learns and acts in a predictable, informed and rational way. All these assumptions have severe weaknesses, but the third assumed step, the nature of the receivers, is probably the most problematic for us. Here, Fenster argues that one of the basic problems built into the ‘transparency theory’ is that it presumes the existence of an interested public that needs and wants to be fully informed (Fenster 2006:34). As an extension of this reasoning, the theory also presumes that the public understands and learns from the information in a predictable way.

Empirical research on how people perceive and interpret information has, however, shown that information affects people differently depending on their predispositions, knowledge and interests (see e.g. Zaller 1992). Too much information can also lead to information overload (for an overview see Eppler & Mengis 2004) which might increase stress and make people more confused rather than making them more knowledgeable and confident. Specifically relating to transparency, research on transparency reforms in the European central bank indicates that the link between actual and perceived transparency is weak; not only because of poor transparency knowledge but also because perceived transparency was influenced by many individual and psychological characteristics (van den Cruijsen & Eijffinger 2010). Therefore, providing increased information about decisions and decision-making procedures might not lead to the intended results simply because people might either ignore it or interpret it in unpredictable or even “strange” ways.

A second, somehow natural, problem with openness is that the public may have a rather vague or even rosy picture of the circumstances under which policy-making is taking place, and transparency reforms might therefore make people disappointed. In this context, it is almost unavoidable to introduce the famous claim that “Laws, like sausages, cease to inspire respect in proportion as we know how they are made”, often ascribed to Otto von Bis-
For people with an ideal image of policy-making as a rational process – comprising a straight chain from policy-makers identifying problems, collecting information on possible solutions, weighing carefully the alternatives and eventually choosing the best option which subsequently is implemented by a Weberian bureaucracy – getting to see how it really works may be an unpleasant surprise (Cf. Grimmelijkhuisen 2010, Lindblom 1959, Cohen, March & Olsen 1972, Pressman & Wildavsky 1984). In the same way it is not self-evident that increased transparency and monitoring of professional work leads to positive consequences since people will perceive many of the normal routines of work as strange or disagreeable. Transparency risks causing anxiety and suspicion, rather than trust (Tsoukas 1997, Strathern 2000, Power 2003).

Finally, openness may also reveal that the decision-makers are taking certain types of decisions which the public either would not want them to take, or would prefer not to know that they were taking. A problem when it comes to perceptions of legitimacy is thus that transparency may uncover unpleasant decisions, or even so called tragic choices (Calabresi & Bobbit 1978), that have to be made in the face of scarce resources. Even though most people probably would agree at a general level that policy-making by necessity involves making painful trade-offs, being enlightened of them may nevertheless cause unease, which in turn may spillover to the perceived legitimacy of the decisions and the decision-makers. This is particularly so with respect to the type of choices that Fiske and Tetlock call “taboo trade-offs” (Fiske & Tetlock 1997. Cf. Tetlock et.al 2000, MacCoun 2006). The theory of taboo trade-offs states that some decisions may be both necessary and commonly perceived as illegitimate to make. A taboo trade-off is defined as:

Any explicit mental comparison or social transaction that violates deeply-held normative intuitions about the integrity, even sanctity, of certain forms of relationship and the moral-political values that derive from those relationships (Fiske & Tetlock 1997, p. 256).

For example, although most people would probably not want the entire public budget devoted to traffic security, many feel provoked by information about how many statistical lives an additional amount of money spent could have saved since we are not “allowed” to put a price on human lives. Making these kinds of trade-offs explicitly raises moral concerns, and can be expected to decrease the perceived legitimacy simply because people do not want these kind of decisions to be made at all.

Related to the theory about decisions that conflict with the basic sense of social ordering are also findings from social psychology showing that when people’s outcome preferences build on strong moral convictions, they tend to base their fairness reasoning on their moral intuitions rather than on evaluations of procedures and rules (Skitka 2002, Skitka & Mullen 2002, 2008, Bauman & Skitka 2009). This so called ‘moral mandate’ approach has been highly criticized by other procedural fairness researchers (e.g. Napier & Tyler 2008) for underestimating the effect of being procedurally fairly treated. However, the theory does introduce doubt into the strategy of employing transparent procedures as a way to increase public acceptance and trust in difficult and morally contentious decisions. At least in these cases, people might not care about anything other than the outcome.

\[\text{\textsuperscript{6}}\] According to the Yale Book of Quotations (2009) however, the source of the statement is rather the lawyer-poet John Godfrey Saxe.
As we have seen, there are reasons to think that the positive relationship between transparency and perceived legitimacy might be more complicated than often assumed, especially in cases of difficult and morally contested issues. Although most researchers think some transparency is necessary for a democratic society, it is not certain that more transparency is always better (Coglianese 2009). However, most of the theories of effects of transparency presented here are purely theoretical. Actual effects of transparency are rarely tested empirically (Etzioni 2010). Even though most of us probably embrace transparency as something clearly valuable and as an important symbol of a democratic society, taking positive effects for granted just because we want them to be can limit our understanding of perceived legitimacy and trust, and generate misdirected policy implications. Therefore, there is a need for more empirical research on how transparency actually affects perceptions of legitimacy.

The case of priority setting in publicly funded health care

Allocation of scarce resources in publicly funded health care is one of the most pressing issues for contemporary welfare states, and has received increasing academic as well as policy making interest during the last decade. The basic problem is that since resources are limited, everyone cannot get all the health care they want within the time they find reasonable. This implies that we must somehow set priorities between different needs. How the allocation of the scarce resources should be organized places the legitimacy of the political system under considerable strain since it is enough to say that resources should be allocated according to need. Someone has to decide which methods and treatments should be available and how different needs should be ranked in relation to each other. This is a question that has to be handled by public officials in every country with some kind of publicly funded health care.

Besides the fact that this is a policy area of clear relevance for the society, health care priority setting is an interesting policy area since it clearly involves questions of life and death or human well-being and therefore highlights some of the psychological mechanisms that we have seen can be thought to reduce the presumed positive effect of transparency on perceived legitimacy. At the same time, it is also a policy area where great expectations are explicitly put on transparency as a potential solution to problems of decreasing legitimacy and trust. One of the most cited researchers in this field is the philosopher Norman Daniels who, together with James Sabin, has formulated the theory of “Accountability for reasonableness” which emphasizes the role of transparency, or publicity in their words, as a major component in decision-making procedures that will lead to legitimacy (Daniels & Sabin 2008). Their theory has become highly influential both among scholars and policy-makers, and the idea that the decision-making procedures underlying priority setting should be more transparent in order to strengthen the legitimacy and trust of the health care system is explicitly identified as a

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7 No matter how appealing an absolutist position - that no care that can do some good should ever be denied to anyone - is, it is probably untenable. We could spend 100% of GDP in industrialized countries on health care that could do some good (see e.g. Elhauge 1994:1459). For most scientists the question is therefore not whether we should set limits to health care, but where and in what way.

8 Daniels and Sabin (2008) recognize that complaints about health care systems in every day talk are rarely formulated in terms of legitimacy but rather in terms of (dis)trust. The same applies to official documents and policies in Sweden, as they often state that increased openness or transparency will lead to sustained or increased trust in the public health care system.
desirable standard in public policy in several countries, including Sweden (National Centre for Priority Setting in Health Care 2007). So far, however, we have seen few examples of open and transparent priority setting in reality.

de Fine Licht (2011) reports a vignette experiment which explores public perceptions of legitimacy for priority setting decisions and procedures, where subjects were provided with different descriptions of the decision-making procedure or no description at all. Counter to expectations, subjects who were simply exposed to the mere decision outcome without any procedural information at all reported significantly higher trust in the public health care at a general level and were significantly more confident in the distribution of health care recourses. This indicates that increased information, i.e. increased transparency, about how a specific decision is made can actually have a negative effect on the perceptions of the health care system in general. The experiment also showed no significant effect of type of decision-maker (politicians, physicians or a citizens’ advisory panel) on acceptance for a decision or trust in decision-makers. In other words, it did not seem to matter for people who made the decision when they judged the fairness of it.9

As the result may be sensitive to the specific trade-off presented and perhaps the type of information provided, this paper advances this line of inquiry with additional manipulations of transparency and by introducing the effect of time. The overarching question is: Does increased transparency in decision-making affect citizens’ willingness to accept priority setting decisions and their trust in decision-makers and health care in general?

Study design

As the aim is to examine causation between two complex constructs, this study employs an experimental approach. This means that randomization is used to create groups of subjects that initially do not differ from each other regarding potentially influential variables such as gender, age, experiences and assessments of health care or political orientation. These groups are then manipulated by different treatments, in this case different information about a priority setting decision and how it was made, and finally asked to fill in a survey with questions relating to decision acceptance and trust. About one month after completing the first survey, subjects received a short follow-up survey which was designed to measure whether any observed effects on attitudes persisted. It should be emphasized that the study is not designed to explore whether transparency makes decision-making more legitimate in a normative sense, but in whether people perceive it as more legitimate, in the sense that they are willing to accept the decisions and trust the decision-makers and their institutions.

The study sample is drawn from a larger non-representative sample of Swedish inhabitants who have volunteered to be a part of a web-based citizen panel based at the department of political science at University of Gothenburg. The citizen panel in self-selected and was re-

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9 The experiment did however, showed a positive effect of framing. A decision-making procedure that was described in positive terms generated significantly higher levels of procedure acceptance and decision acceptance than a procedure that was described in negative terms. This implies that it is possible to manipulate people to accept a decision by highlighting the positive aspects of a particular procedure.
crui
ted during and after the Swedish national election 2010. A total of 1200 subjects from the citizen panel were randomly selected to participate in this study and were randomized to one of the nine different conditions. The response rate is of secondary importance in experimental studies, but should be considered as very good. 1049 subjects responded the first survey, and of those 950 responded also to the follow up survey. The sample consisted of 36 percent women and 64 percent men. 18 percent stated that they had not sought medical treatment the last year and 29 percent indicated that they had done it more than 3 times. On a scale from 1 (low) to 7 (high) they responded on average 4.6 on how good they thought the Swedish health care to be and 5.25 on interest in health care issues. Eight percent stated that they worked in the health care sector and 46 percent stated that they had some higher education.

The case described in the scenarios presented to the subjects referred in its basic form to a situation where an anonymous county in Sweden decided to stop the use of some exceptionally expensive cancer drugs mainly to be able to finance a big investment in psychiatric care. This particular priority setting decision was chosen since it represents a high stakes scenario of major concern. Both cancer and mental illness are also well-known conditions which should be easy for ordinary citizens to relate to. While the trade-off between exactly these two investments is fictional, each has separately been addressed in policy debates in recent years (see e.g. Faden 2009, Socialstyrelsen 2007 & 2010, Västerbottens läns landsting 2008).

The treatments varied as to the degree of information provided about the priority setting decision and how it was made. There were four main treatments, divided into closed decision-making and open decision-making:

Closed conditions:

1). Baseline

Subjects got no information at all on the topic of priority setting.

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10 Compared to the Swedish population in general the participants are more highly educated, more interested in politics and to a higher extent of male gender. Concerning political party preferences, the largest parties are underrepresented See Dahlberg et.al. (2011) for more information about the citizen panel.

11 In Sweden, directly elected county or region councils are responsible for health care provision and allocation. A Swedish county or region consists of between 128 000 inhabitants (Jämtland) and 1.9 million inhabitants (Stockholm).

12 The subjects were initially told that they were about to read a text about how a priority setting decision could have been taken. In the end of the questionnaire, subjects were explicitly told that the case was fictional.

13 In reality, priority setting decisions are rarely this distinct and it is seldom this clear that the resources taken from one kind of treatment is almost directly transferred to another kind of treatment. Actually, it is so far very unusual that decision-makers make explicit prioritizations between different groups of patients at all. Therefore, this case should be seen not as an example of a priority setting decision that is made today, but rather as an example of a priority setting decision that we might/probably will have to deal with in the future if we are serious about the plan to increase openness, predictability and accountability in health care priority setting in the face of evolving problems with scarce resources.

14 This means that it is not effects of transparency per se that is explored but rather effects of actually getting information about decisions and decision-making processes.
2). Issue introduced

The subjects were told that priority setting is a topic high on the agenda and were asked how they would react to a decision that involved a trade-off between expensive cancer-drugs and psychiatric care. This means that the issue of priority setting was introduced, but subjects received no justification for the decision except resource scarcity and no information about the process by which the decision had been taken.

Open conditions:

3) Transparency in rationale

The subjects read a short vignette stating that it had been decided that some exceptionally expensive cancer drugs would no longer be available but that there would be an investment in psychiatric care instead. They also read a justification for the decision. However, there was no information about the decision-maker or the decision-making procedure. The vignette was written to resemble a short news item in a newspaper.

4) Transparency in process

The subjects read a longer vignette describing the decision-making process, giving them insight in the formal decision-making procedure, the decision-making discussion and the different positions and justifications for the decision. The vignette was written to resemble a journalistic report/article about a decision-making process and final decision. The “articles” were written with guidance from journalistic professionals.¹⁵

At the “transparency in process” level, where the subjects read a longer article, some additional manipulations were also included to isolate the effect of transparency.

The first manipulation was whether the final decision was made by doctors (hereafter “doctors”), by politicians after a process where doctors made internal prioritizations within each area of treatments (hereafter “politicians”), or formally by politicians after having consulted a citizens’ advisory panel (hereafter “citizens”). These procedures were chosen because they represent three different potential ways of legitimizing an authoritative decision. The first procedure relies on expert knowledge, the second one on democratic accountability (although made more realistic and perhaps less an ideal type by including a pre-process of expert input) and the last one on citizen participation. In the procedures where doctors and

¹⁵ Many thanks to Malena Whålin, Rebecka Åsbrink and Daniel Kihlström for valuable comments and suggestions on this. The articles aimed at being neutral and presented a rather straightforward report of the decision-making process and discussion among the decision-makers. Although the ambition was to present the outcome as based on relevant arguments and considerations, the articles presented arguments both for and against the decision and did not take a clear side. They did not include any opinions from “outside” and no views from “victims” or “favored”. It was first stated what was going to be prioritized (psychiatric care) and then where the cuts were going to be made (cancer drugs).
politicians made the decision, a manipulation of degree of conflict – whether the decision was made in consensus or by a majority with some delegates making reservations against the decision – was also included. For practical reasons degree of conflict was not manipulated in the “citizens” scenario. Further, to be able to control if the restriction on cancer drugs was especially provoking, a condition with a reversed decision was included. This means that the outcome was that expensive cancer drugs were prioritized at the sacrifice of the psychiatric care instead. The procedure used in this scenario was politicians with majority resolution.

This means that at the level of “transparency in process”, there were six different conditions:

4a). Doctors, consensus
4b). Doctors, majority resolution with dissenting votes
4c). Politicians, consensus
4d). Politicians, majority resolution with dissenting votes
4e). “Reversed” decision, politicians, majority resolution with dissenting votes
4f). Citizens’ panel, majority resolution with dissenting votes

In total this means that nine different manipulations were included in the experiment.

The main dependent variables were "Trust in health care at a general level" for all groups and "Decision Acceptance" and "Procedure acceptance" for the open groups.16

Decision acceptance was measured by three questions: What do you think of the decision to stop the use of expensive cancer drugs to finance an investment in psychiatry? How fair do you think the decision is? and How willing are you to accept the decision? (1 = low acceptance / fairness, 7 = high acceptance / fairness). Procedure acceptance was measured by three questions: What do you think of how the decision was made?, How fairly do you think the decision was made? and How fair do you think you as a citizen were treated when the decision was made? (1 = low acceptance / fairness, 7 = high acceptance / fairness). Two scales varying from 1 (low acceptance) to 7 (high acceptance) were constructed. Cronbach’s alpha for decision acceptance was .943 and .931 for procedure acceptance.

Decision acceptance and procedure acceptance were not measured in group 2 (“Issue introduced”) but subjects answered the question: A question that has been much debated recently is how healthcare resources should be allocated between groups of patients with different needs when resources are limited. For example, this might involve a stop of use of expensive cancer drugs to make funding available to increase the number of beds in psychiatric care. How would you react to a priority setting decision like that? (1= against, 7=for) as an indication of how a person who had not received any information of how the priority decision was justified or the decision-making procedure would react to it.

Trust in health care at a general level was measured for all groups, including the baseline, by four questions: How much do you trust the health care system in Sweden? How fair do you think the allocation of healthcare resources is today?, How much do you trust the way in which healthcare resources are distributed today? and To what extent do you feel confident that you get good care when you contact the public health care institutions? (1 = low confidence, 7 = high confidence). A scale was constructed which varied from 1 (low trust) to 7 (high trust). Cronbach’s alpha was .871.

16 A summary of treatments and dependent variables can be found in appendix.
ANOVA was used to verify that the process of randomization had been successful with regard to sex, level of education, self-placement on a political left to right scale, employment in the health care sector, interest in health care related issues, number of times seeking medical treatment the last year, initial opinion of how well the Swedish health care is and county of residence. No systematic differences were found.

The treatments in the open groups, especially in the process condition, were by necessity quite long which means that one might question whether subjects actually read them. Since the survey was done electronically it was, however, possible to measure how long it took for the respondents to complete the survey. After excluding those subjects that took more than an hour to complete the questionnaire, the analysis showed a difference of just over four minutes between subjects in the baseline (shortest questionnaire) and subjects in the process condition (longest questionnaire). Although far from airtight, this indicates that the participants actually read the articles.

Before addressing the core questions, the hypothesis that the decision to stop the use of expensive cancer drugs to invest in psychiatry was a particularly unacceptable decision was also tested. The mean value for decision acceptance for the group that read the reversed scenario was 2.73 (N = 123) and the mean for decision acceptance in the group where disagreeing politicians made the decision was 2.80 (N = 105) on a scale from 1 (low) to 7 (high). This difference was not significant (p=0.711). This means that there is nothing to indicate that the decision to cut down on cancer drugs would be particularly provoking. Rather, the tendency seems to be that the decision is seen as equally bad regardless which of the two groups that is the disadvantaged one. The "reversed" group was then excluded from further analyses since it actually concerns a different case.

Results

Effect of type of decision-maker

To isolate the effect of transparency, this first section explores whether it makes any difference if the priority setting decision is taken by politicians, doctors or by a citizens’ advisory panel for how the procedure and decision is accepted by subjects. The baseline, the group that got a simple question about how they would react to the decision and the transparency in rationale condition has been excluded from this analysis since only subjects in the transparency in process conditions were informed about the decision-making procedure. The table below shows regressions for decision acceptance, procedure acceptance and trust in health care at a general level with politicians as reference.
Procedure acceptance, Decision acceptance and trust in Swedish health care at a general level (1-7).

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<th>Decision acceptance</th>
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<td>3.286*** (.101)</td>
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<td>Doctors</td>
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Comment: Politicians as reference. Standard errors in parentheses. Decision acceptance was measured by three questions: What do you think of the decision to stop the use of expensive cancer drugs to finance an investment in psychiatry?, How fair do you think the decision is? and How willing are you to accept the decision? (1 = low acceptance / fairness, 7 = high acceptance/fairness). Procedure acceptance was measured by three questions: What do you think of how the decision was made?, How fairly do you think the decision was made? and How fair do you think you as a citizen were treated when the decision was made? (1 = low acceptance/fairness, 7 = high acceptance/fairness). Trust in health care at a general level was measured by four questions: How much do you trust the health care system in Sweden?, How fair do you think the allocation of healthcare resources are today?, How much do you trust the way in which healthcare resources are distributed today? and To what extent do you feel confident that you get good care when you are contact with the public health care institutions? (1 = low trust, 7 = high trust). ***p<0.01, **p<0.05, *p<0.10.

As we see in the table, the only sign of significance represents the effect of having read an article where doctors took the decision for trust in health care at a general level, but this effect is only significant at the 10 percent level. For decision acceptance and procedure acceptance, there is nothing to indicate that it would make any difference for people whether a given priority setting decision is taken by doctors, politicians or a citizens’ advisory panel. Although we should keep in mind that a null result does not prove that there is no effect, this is an interesting, and quite counterintuitive, result. Although people generally trust medical professionals much more than health-care politicians, people do not seem to accept a given decision to a greater degree if taken by doctors.

There was a small positive effect, albeit only significant at the ten percent level, of agreement within the decision-making body for decision-acceptance. Those who had read the article in which decision-makers took the decision in consensus (N = 221) reported a mean of 3.18 and those who had read an article in which the decision-makers did not agree (N = 324) reported a mean of 2.94.

On a whole, it thus seems that type of decision-maker or degree of conflict does not make any greater difference for peoples’ assessments of either decisions or procedures.

17 This result was also shown in de Fine Licht (2011).
18 This is also the case in this sample. When asked to indicate their trust in health care politicians, the group as a whole reported a mean of 2.95 and when asked to indicate their trust in health care personnel they reported a mean of 5.53. Analysis showed that both trust in politicians and health care personnel were uninfluenced by type of decision-maker and degree of transparency.
Effects of transparency on attitudes to priority setting decisions

This section addresses the overarching question of the effect of transparency on attitudes to the specific priority setting decision, that is, the decision to stop the use of expensive cancer drugs to finance an investment in psychiatry.

We can initially establish that acceptance is generally below the mean on a scale from 1 (low acceptance) and 7 (high acceptance). The group as a whole answered an average of 3.07 on decision acceptance and 3.17 on procedure acceptance. Procedure acceptance and decision acceptance are strongly positively correlated (.849, p=.000). This means that if one perceives the decision-making procedure to be fair, one is also more inclined to accept the decision, and vice versa.

Effect of different degrees of transparency

As a first step, we examine whether there are any differences between the two open conditions. Does it make any difference if subjects are only provided with the motivations for a decision (transparency in rational) or if they also get access to information about the decision-making procedure and debate (transparency in process)? The baseline group and the group that was only asked how they would react to the decision are excluded from this analysis.

As we see in the table below, the differences between these groups are small, and not significant.

### Decision acceptance and procedure acceptance.
#### Mean values (1-7) for transparency in rationale and transparency in process.

<table>
<thead>
<tr>
<th></th>
<th>Decision Acceptance</th>
<th>Procedure Acceptance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transparency in rationale</td>
<td>3.24 (106)</td>
<td>3.07 (106)</td>
</tr>
<tr>
<td>Transparency in process</td>
<td>3.04 (545)</td>
<td>3.19 (531)</td>
</tr>
<tr>
<td>Difference</td>
<td>0.2</td>
<td>0.12</td>
</tr>
</tbody>
</table>

Comments: N for each group in parentheses. Decision acceptance was measured by three questions: What do you think of the decision to stop the use of expensive cancer drugs to finance an investment in psychiatry?, How fair do you think the decision is? and How willing are you to accept the decision? (1 = low acceptance / fairness, 7 = high acceptance / fairness). Procedure acceptance was measured by three questions: What do you think of how the decision was made?, How fairly do you think the decision was made? and How fair do you think you as a citizen were treated when the decision was made? (1 = low acceptance/fairness, 7 = high acceptance/fairness). Two-tailed t-test. ***p<0.01, **p<0.05, *p<0.10.

We find the biggest difference between the two groups in the column showing decision acceptance. While the results point in the direction that the additional information about the decision-making procedure and the debate would actually make people less inclined to accept the decision, the difference does not reach statistical significance (p= 0.229).
Although it is important to note that a null result does not prove that there is no difference, there is thus no indication that it would make any difference if a person only get information about the reasons and justifications for a decision or if she gets additional information about how the decision was taken. Interestingly, this applies not only to acceptance of the decision, but also to the acceptance of the procedure. In other words, it seems to be equally good (or bad) to simply justify a decision compared to providing additional information about the formal decision-making procedure and the decision-making debate. Increased transparency, in the form of increased decision-making information, does not lead to increased acceptance neither for the decision, nor for the procedure.

Further, If we consider the argument from principal-agent theory that increased transparency should lead to increased perceived legitimacy since people would feel that they more easily can identify the responsible actor, and the argument from deliberative theory that increased transparency should lead to increased perceived legitimacy since it increases the observers’ understanding for the decision, we see no indication that these mechanisms work as intended. Analysis showed no significant differences between the “transparency in rationale” and the “transparency in process” condition for To what extent do you feel that you know who was responsible for the decision? (1 = Do not know who is responsible, 7 = know who responsible) and no significant difference for To what extent do you feel that you understand the decision? (1 = low understanding, 7 = high understanding). Perceived possibility to identify the responsible actor or to get understanding for the decision does not seem to increase with greater possibilities by more objective means.

Of course, this result might be explained by the stimuli. Maybe the articles in the process condition were not clear enough and maybe they should have contained even more information about the procedure. Another possibility is, however, is that it actually makes small difference to people which type of information they get when they evaluate a decision or decision-making procedure.

Effect of transparent decision-making as opposed to closed decision-making

It may still be the case, however, that some form of information enhances the perceived legitimacy compared to no information. Therefore, we now bring the “issue introduced” group, which received only the question of how they would react to the decision without any description of the procedure or discussion, into the analysis.

On a scale of one to seven, where 1 represents "completely against" and 7 represents "completely for", the mean for this group was 2.73 (N = 113). This is significantly higher (p=0.022) than the mean for decision acceptance in the group that had read the justifications.

19 Certainly, the effect might also be different if people are allowed to observe the decision-making in real-time.

20 It is important to note that even a decision like this (if real) is of course preceded by a decision-making procedure although the general public may not know anything about it. This was not explicitly stated, as an explicitly closed procedure would most likely lead to great dissatisfaction. Research on so called "voice", i.e. that people are allowed to have a say in decision-making, has for example shown that it is worse to be explicitly denied "voice" than to simply not get the possibility to have a say (van den Bos, 1999). To not get information about how a decision was made, but without an explicit denial of access to information, is also probably more authentic to how ordinary people come into contact with the issue of priority setting today.
for the decision (transparency in rationale, M= 3.24) and significantly higher at the ten percent level (p = 0.065) than the group that had read the longer articles (transparency in process, M=3.04). Although we should keep in mind that the group that received no background information simply responded to "how they would react to the decision" while the open groups (transparency in rational and transparency in process) responded to three questions which were combined to measure decision acceptance, we see a slight tendency that those who received a procedural description and/or a justification for the decision are more positive than those receiving only the question of how they would react to the decision.\textsuperscript{21}

In order to determine whether it was the difference in wordings or the hypothetical versus the concrete decision that drove this result, an additional experimental session was designed in which one group (N = 72) were asked exactly the same questions that had been aggregated into an index of decision acceptance in the open groups. The treatment consisted of the same introductory text as the open groups, stating that when resources in health care are limited there is a need for priority setting. However, instead of a longer text as the ones in the transparency in rationale or the transparency in process conditions, these new subjects only read one sentence which can be compared to a short news telegram: \textit{County X has decided to stop the use of some very expensive cancer drugs to increase the number of beds for treatment in psychiatry.} The "new group" received no further information about how, on what grounds or by whom the decision was taken.\textsuperscript{22}

It turned out that the mean for decision acceptance in the "new" group was 2.96, which is not significantly lower than the mean of decision acceptance in the group that only read the justifications (p= 0.232) or the group who also had to read a description of the process (p= 0.703) in the main experiment. However, it is not significantly distinguished from the mean in the group that simply responded to the question of how they would react to the decision either (p=0.333). This means that although we see a tendency that subjects receiving some information about the reasons for the decision and the decision-making process (transparency in rational and transparency in process) indicate higher mean values for decision acceptance than subjects which are only exposed to the decision outcome, we cannot rule out the possibility that this difference is due to chance.

\section*{Effects of transparency for trust in health care at a general level}

We will now explore the effect of transparency when it comes to trust in health care and its resource allocation at a general level. The total mean for the whole sample is 4.17 on a scale from 1 to 7. The figure below shows mean values for the different experimental conditions.

\textsuperscript{21} A similar comparison in de Fine Licht (2011) showed no significant effect.

\textsuperscript{22} The new group was randomized and sent out in the next wave of the citizen panel, about two months later than the original experiment. Since this group was not included from the beginning, all comparisons should be done with some caution. During these months, there were no particular news events that could have influenced the outcome in the new group, but since it was not randomized with the original experiment it cannot uncritically be counted as a "full member". However, subjects recruited to the new group were from the same "pool" of participants (the citizen panel at University of Gothenburg), so they had the same chance to be selected. No subjects in the new group had participated in the original experiment.
Mean values for trust in health care at a general level (1-7)

Comment: N for each group in parentheses. Trust in health care at a general level was measured by four questions: How much do you trust the health care system in Sweden?, How fair do you think the allocation of healthcare resources are today?, How much do you trust the way in which healthcare resources are distributed today? and To what extent do you feel confident that you get good care when you are contact with the public health care institutions? (1 = low trust , 7 = high trust).

If we first take a look at the bars to the left, we see that there are no great differences between the groups, although the “closed groups” (The baseline and the group that got a simple question of how they would react to the decision) show higher levels of trust in healthcare at a general level than the “open groups” (transparency in rationale and transparency in process). The regression analysis below, with the baseline as reference, also shows no significant effects.

**Effect of transparency on trust in health care at a general level**

<table>
<thead>
<tr>
<th></th>
<th>Trust in health care</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>4.323*** (.110)</td>
</tr>
<tr>
<td>Issue introduced</td>
<td>.006 (.158)</td>
</tr>
<tr>
<td>Transparency in rationale</td>
<td>-.254 (.160)</td>
</tr>
<tr>
<td>Transparency in process</td>
<td>-.193 (.122)</td>
</tr>
<tr>
<td>N</td>
<td>867</td>
</tr>
<tr>
<td>R²</td>
<td>.006</td>
</tr>
</tbody>
</table>
Comment: Baseline as reference. Standard errors in parentheses. Trust in health care at a general level was measured by four questions: How much do you trust the health care system in Sweden? How fair do you think the allocation of healthcare resources are today? How much do you trust the way in which healthcare resources are distributed today? To what extent do you feel confident that you get good care when you contact the public health care institutions? (1 = low trust, 7 = high trust). ***p<0.01, **p<0.05, *p<0.1.

Both transparency in rational and transparency in process are, however, quite close to be significantly distinct from the baseline (p=0.112), while the baseline and the group that got the simple question of how they would react to the decision are indistinguishable with an almost identical mean value. If we make a simple comparison between the “closed groups” and the “open groups”, as shown by the two bars to the right in the figure, the difference is significant (p<0.05, two-tailed).

The results of this analysis thus indicate that people do not seem to increase their trust in health care at a general level if provided with information about how priority setting decisions are justified and decided upon. If anything, transparency seems to lead to a loss of trust in health care at a general level.²₃

Effect of time and information processing

Since the previous analysis showed a tendency that transparency could actually have a negative effect on trust in health care at a general level, a second, much shorter, questionnaire was sent out one month after the first survey in order to explore what happens with people’s attitudes if they have time to process the information. This second questionnaire contained three questions about how the person had processed the information in the first survey: whether they had thought more about priority setting issues in health care, whether they had discussed priority setting issues with others and whether they had searched for more information about priority setting, plus exactly the same questions about health care at a general level as in the first survey.

The analysis showed that after one month there seems to be no difference at all between those who had read an open description (transparency in rationale and transparency in process) in the first survey and those who had got a closed procedure (the baseline group and the group who only answered the question about how they would react to the decision) in the first survey. The average for trust in health care at a general level was now exactly the same (4.58) in both these groups. This also represents a small, but significant, increase from the previous mean of 4.17. Although it is not the same questions, a comparison can perhaps be made with the question: How good do you think that the Swedish healthcare system works in general? (1-7) in the first survey, where the total mean was 4.57.²⁴ The result could then be interpreted as a sign that even though we saw a small tendency that transparency could decrease trust in health care at a general level, it has “recovered” after only a month.²⁵

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²³ This result was also found in de Fine Licht (2011).
²⁴ This question was that was placed before the participants read the scenario in the first survey and was used to verify that the initial opinion about health care was equally distributed among the nine groups of subjects in the experiments.
²⁵ The “recovery” can, however, also be a result of the debriefing sign in the end of the first survey which informed the subjects that the priority setting decision was fictional.
When we also consider people’s reports of how they have processed the information in the first survey, the results is, however, somewhat less positive for those who see transparent priority setting as a way to increase trust in healthcare. The table below shows mean values for trust in health care among participants stating that they have processed the information from the first survey in any way and among participants stating that they have not.

**Trust in health care one month later.**
**Effect of information processing. Mean values (1-7).**

<table>
<thead>
<tr>
<th></th>
<th>Discussed with others</th>
<th>Thought a lot</th>
<th>Searched for more information</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>4,60 (731)</td>
<td>4,60 (771)</td>
<td>4,64 (729)</td>
</tr>
<tr>
<td>Yes</td>
<td>4,32 (91)</td>
<td>4,28 (54)</td>
<td>4,09 (95)</td>
</tr>
<tr>
<td>Difference</td>
<td>0,28**</td>
<td>0,32**</td>
<td>0,55***</td>
</tr>
</tbody>
</table>

Comments: Trust in health care at a general level is measured by four questions: How much do you trust the health care system in Sweden?, How fair do you think the allocation of healthcare resources are today? How much do you trust the way in which healthcare resources are distributed today? and To what extent do you feel confident that you get good care when you contact the public health care institutions? (1 = low confidence, 7 = high confidence). N for each group in parentheses. ***p<0.01, **p<0.05, *p<0.1. Two-tailed t-test.

As we see in the table, trust in health care is significantly lower among those stating that they have somehow processed the information in the first survey than among those stating that they have not. Therefore, the theory that increased interest and knowledge about these kinds of issues would make people more trusting does not get support. Rather, this result indicates that trust in health care could actually gain from a public lack of interest and tendency to forget the information or leave it behind.

**Conclusions**

Transparency is widely acknowledged as an important democratic value with clear positive connotations. From a normative point of view, increased transparency is probably something that most people would advocate. This study, however, shows that the empirical relationship between transparency and other values we tend to hold strong, like perceptions of legitimacy among the public, might be more complicated than often assumed. In line with de Fine Licht (2011) results indicate that it is far from obvious that transparency will increase acceptance and trust, at least not when it comes to controversial issues such as the allocation of scarce medical resources. Rather, there was actually a tendency that transparency produces lower levels of reported trust in health care, and no clear effect of transparency when it comes to acceptance of a specific decision or decision-making procedure. These results seemed to be fairly unaffected by type of decision-maker or degree of transparency.

An important implication from this study is therefore that there are probably severe challenges when it comes to designing information about decisions and decision-making proce-

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26 The response options were "Yes, a lot", "yes, a little" and "no, not at all". In the table, "Yes, a little" (mean 4,54 N=389) has been merged with “no, not at all (mean 4,66 N=382) and counted as “no”.
dures that will be widely perceived as open and informative and that will actually be able to affect people's opinions and beliefs. Of course one can argue that providing subjects with even more or a different kind of information would result in a positive effect. In that case we should, however, also consider that more information could also result in information fatigue or a feeling that decision-makers are trying to persuade the population of something that is not in its interest. Since the analysis over time showed that trust in health care was actually lower among those who reported that they had processed the information, there is also a risk for a negative effect of increased information. If these kinds of issues become more frequently debated in media, the result could be more negative feelings and attitudes as people become increasingly interested and knowledgeable.

This is, however, not to say that transparency is “bad” or that we should not try to increase transparency in decision-making. An alternative interpretation of the result could actually be that if the concern is public acceptance and trust, there is no great risk with increased transparency. Even though we saw no clear positive effects of increased transparency, the negative effect was not particularly strong. That trust seemed to increase or even “recover” after a month among those subjects who had not processed the information further can also be taken as a sign that people may experience this type of decisions as initially unpleasant, but it may not have any greater impact on trust in the long run. Finally, one can also argue that it is the argument that transparency will increase perceived legitimacy that is problematic or not particularly useful. Instead, we could focus on arguing that it is right to increase transparency for other reasons, for example that transparency is in line with democratic ideals, or that citizens simply have the right, or even the obligation, to know how their common resources are allocated, even if it is painful.

Further research in this important area should probably focus more specifically on the link between actual and perceived level of transparency, i.e. information available about decisions, justifications and decision-making processes, and on how information should be designed to enable people to feel that they get enough and the right kind of information. Also, since this study has focused on controversial and unpleasant decisions which may threaten deeply held moral values, effects of transparency should also be explored in other types of decisions to increase our understanding for how and what circumstances transparency may have different kinds of effects.
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<table>
<thead>
<tr>
<th>Degree of transparency</th>
<th>Treatment</th>
<th>Dependent variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>Closed Decision-making</td>
<td>1. Baseline</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>2. Issue introduced</td>
<td>Simple question of how one would react to the decision</td>
</tr>
<tr>
<td></td>
<td></td>
<td>*Trust in health care</td>
</tr>
<tr>
<td></td>
<td></td>
<td>*Reaction to decision</td>
</tr>
<tr>
<td>Open Decision-making</td>
<td>3. Transparency in rationale</td>
<td>”News item”. Justification for the decision.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>*Trust in health care</td>
</tr>
<tr>
<td></td>
<td></td>
<td>*Decision-acceptance</td>
</tr>
<tr>
<td></td>
<td>4. Transparency in process</td>
<td>“Article”. Justification for the decision. The formal decision-making procedure. The decision-making discussion</td>
</tr>
<tr>
<td></td>
<td>4a) Doctors, consensus</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4b) Doctors, majority resolution with dissenting votes</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4c) Politicians, consensus</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4d) Politicians, majority resolution with dissenting votes</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4e) “Reversed” decision, politicians, majority resolution with dissenting votes</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4f) Citizens’ panel, majority resolution with dissenting votes</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>*Trust in health care</td>
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<tr>
<td></td>
<td></td>
<td>*Decision-acceptance</td>
</tr>
<tr>
<td></td>
<td></td>
<td>*Procedure acceptance</td>
</tr>
</tbody>
</table>

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27 This group was randomized and sent out about two months later than the original experiment. See section “Effect of transparent decision-making as opposed to closed decision-making.”