

The impact of protected values on acceptance and procedural fairness of public projects:

Exploring the effects of decision procedures

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公共事業に関わる保護価値が受容意識と手続き的公正感に及ぼす影響—意思決定ルールの役割に着目して—

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要約

公共事業に関わる意思決定問題において、他の価値とのトレード・オフを忌避する「保護価値」が介在する場合、異なる価値間の比較衡量が出来ず、円滑な合意形成を図ることが困難となる可能性がある。本研究では、公共事業の意思決定手続きに着目し、費用便益分析、慣例・法令遵守、多数決ルール、話し合いの4つの方法を取り上げて、保護価値保持者の受容意識及び手続き的公正感との関連について実証的に検討することを目的とした。アンケート調査 ($n = 300$) より、保護価値が非帰結主義的な義務論的ルールと関連していることを示す結果が得られた。また、保護価値保持者においては、費用便益分析によって事業が採択された場合に、その他の方法に比べて、当該事業に対する受容意識が低い傾向が見られた。さらに、手続き的公正に関わる評価指標においても同様の傾向が確認された。最後に、本研究の結果が公共事業に関わる合意形成問題に示唆する点について考察した。

Key words

protected values, public acceptance, decision procedure, cost-benefit analysis, procedural fairness

1. Introduction

Gaining acceptance from the public plays a critical role in the successful implementation of regional projects (Wan, Shen, & Choi, 2017). If a project proposal enjoys strong public support, the government can carry it out smoothly. Support from citizens may also support the authority in raising funds for the project (Basbas, Mintsis, Taxiltaris, Roukouni, & Vazakidis, 2015). Conversely, low levels of acceptance among citizens may cause obstacles to policy-goal achievement, despite a government's best efforts. As a result, a project may fail in the face of strong public opposition.

Residents' responses to government project proposals depend on their perceptions of its benefits and costs, and the trade-offs between them (Hamersma, Heinen, Tillema, & Arts, 2016). Regional projects are commonly constrained by various trade-offs between incompatible values, as satisfying one value may entail sacrificing another. For example, transportation projects such as highway construction can improve regional accessibility and reduce travel time, but they can also lead to changes in the local environment and force local residents to relocate. If residents' responses to proposed projects are taken into account, directly or indirectly, in regional decision making, it is vital that residents understand such trade-offs so that they can make well-reasoned judgments about the project.

1.1 Protected values

Some people with strong values and opinions, however, think that their values and opinions are absolutely non-negotiable and refuse to make trade-offs. Such values, which are protected against trade-offs with other values, are called protected values by Baron & Spranca (1997). Using economic terminology, protected values are values with an infinite marginal rate of substitution. People with protected values think that these values should not be sacrificed for anything, regardless of the benefits. It has been pointed out that people may assign protected values to human and animal life, the natural environment, human rights, divinity, etc. so as not to condone any activities or developments that could lead to the impairment of such values (Baron, 2008; Baron & Spranca, 1997).

Unlike consequentialism, protected values are considered to be based on deontological rules regarding behavior itself, rather than the consequence of behavior (Baron & Spranca, 1997). Here, deontological rules generally represent rules that govern actions that should or should not be taken, regardless of their consequences. Protected values exhibit qualities such as quantity insensitivity, obligation, anger, and omission bias because they are based on such deontological rules (Baron & Spranca, 1997). First, protected values make people insensitive to consequences. For example, an environmentalist with protected values linked to environmental conservation may consider destroying a species through a single act to be as bad as destroying a hundred species through a single act. Second, the actions

required or prohibited by protected values are regarded as moral obligations, because they are universal and objective, not simply conventions or personal preferences. Third, people may become angry if their protected values are violated because they see it as a moral violation. With regard to this, Tetlock et al. (2000) pointed out the possibility that the very act of trading off one's values with other people's values may induce a sense of anger. Finally, protected values concern actions but not omissions. Accordingly, people who hold protected values tend to be less concerned about the harm caused by omission than about identical forms of harm caused by action.

In the decision-making process for regional projects, such refusals to make trade-offs by some stakeholders create problems for government agencies, which try to allocate resources by taking into account the various values of all stakeholders. For example, one stakeholder could dominate a decision by expressing an absolute value, or stakeholders with conflicting protected values could make it impossible to finalize a decision (Baron & Leshner, 2000). Taken together, residents' denial of trade-offs due to their protected values may challenge authorities' attempts to make reasoned judgments and garner public acceptance of decisions in diverse societies.

1.2 Protected values and decision procedures

Protected values are based on an absolute belief that one's values must be protected at all costs. Previous studies, however, suggest that such values may not necessarily be invariable; they may be altered, depending on the situation. Baron & Leshner (2000) demonstrated that protected values may be attenuated in those holding them when they imagine counterexamples to those values (circumstances in which they had no choice but to accept the action they object to). Similarly, Hatori & Kajiwara (2014) found that protected values may not be retained when people are given the opportunity to reflect on situations in which their protected values conflict with other values. These findings suggest that, even if people originally think that a project proposal conflicts with their protected values, they can, eventually, accept it.

Taking these findings into consideration, the present study focuses on the effects of decision procedures to explore the possibility of convincing those who have protected values to accept a public project. Given that protected values are based on deontological rules, which contrast with consequentialism, even if a project may lead to "consequences" that conflict with one's protected values, negative attitudes towards that project might be moderated, depending on the "procedures" used to design the project. According to Fujii (2008), methods for making social decisions can generally be divided into four types; 1) cost-benefit analysis, 2) compliance with laws and customs, 3) majority rule, and 4) deliberation. People's responses to a project proposal may depend on which method the government adopts to make the decision. In particular, as cost-benefit

analysis measures trade-offs between the costs and benefits of a project in monetary terms, people who think their values should not be traded off may refuse projects proposed based on such a procedure.

1.3 This study

Although denial of trade-offs due to residents' protected values is one of the most significant issues regarding public acceptance, few researchers have investigated how to convince people with protected values to accept a public project. Hatori & Kajiwara (2012) showed that project acceptance by those with protected values depends on the associated decision-making processes. However, this finding was based on data obtained from university students, a somewhat restricted sample. Moreover, as the previous study only assessed the acceptability of decision procedures, little is known about the reasons why the acceptability of a proposal depends on the procedure used to make it. Accordingly, we replicated the previous study using an adult sample to determine which decision procedures can be used to moderate the negative attitudes of people with protected values. Furthermore, we investigated how people with protected values perceived the fairness of decision procedures, in a comparative manner, as this is known to contribute to public acceptance (Lind & Tyler, 1988).

2. Method

2.1 Participants

Three hundred residents of three cities (Makassar, Maros, and Watampone) in South Sulawesi were recruited randomly to participate in a questionnaire survey. The sample consisted of

Table 1: Personal attributes of participants

	n	%
Residence type		
Permanent house	229	76.3
Rental house	41	13.7
Others:	30	10.0
Occupation		
Employee	46	15.3
Civil servants	119	39.7
Part time job	10	3.3
Student	65	21.7
House wife	21	7.0
Self employed	24	8.0
Others:	15	5.0
Education		
< High school graduate	10	3.4
High school	98	32.9
College degree	144	48.3
Graduate degree	46	15.4

148 males (49.3 %) and 152 females (50.7 %), and their mean age (standard deviation) was 33.46 (10.92) years (range of 19-65 years). Other information about personal attributes of participants is shown in Table 1.

2.2 Questionnaire and procedure

Questionnaires were administered by one member of a team of seven interviewers at the respondents' homes. Before undertaking the survey, the interviewers attended a 3-hour briefing session about how to administer the questionnaire and were informed about the objectives of the study. Each interviewer administered 35-45 questionnaires, and the average duration of the questionnaire was 30 min. Each respondent was informed that his or her responses would be used for research purposes only and was assured of confidentiality.

2.2.1 Measures of protected values

Initially, participants were asked to read a scenario about a dam construction project that may cause some fish species to become extinct. After reading the description, their tendencies to express protected values regarding the project were measured according to Baron & Spranca (1997). They were asked to select the option closest to their opinion regarding the project, from the following three options:

- The project should be prohibited no matter how great its benefit.

- The project should be accepted if it provides a sufficient benefit.
- I agree with the project.

As suggested by Baron & Spranca (1997), participants selecting choice 1 were identified as possessing protected values about this project. Hereafter, these are called PVs; those who selected choices 2 or 3 are called non-PVs.

The participants were then asked to rate their agreement with three items regarding the deontological rule using 7-point scales ranging from 1 = totally disagree to 7 = totally agree: moral obligation ("We have an obligation to try to stop this project"), anger ("I feel angry about this project"), and resentment ("I feel resentment towards this project"). To assess quantity insensitivity, the participants were asked whether it is equally wrong to allow this project to be implemented once or twice. Moreover, to measure omission bias, we asked the participants to read a new scenario in which more harmful consequences (extinction of more species) could result from not constructing this dam. After reading this scenario, they indicated their agreement with this project using 7-point scales ranging from 1 = totally disagree to 7 = totally agree.

2.2.2 Decision procedures and acceptance

The participants were asked to read four scenarios in which this project was adopted based on the different methods shown in Table 2. After reading each scenario, the participants were asked to indicate their level of agreement with the decision using 7-point scales ranging from 1 = totally disagree to 7 = totally agree.

The fairness of each procedure was also measured by two questions: procedural fairness 1 ("This procedure is a fair way to implement the project") and procedural fairness 2 ("This procedure provides fair treatment to those involved"). Furthermore, we included three questions related to procedural fairness: dignity & respect ("This procedure treats residents with dignity and respect"), residents' rights ("This procedure respects resident's rights"), and anger ("How angry would you be about this outcome?"). All items were rated on a 7-point scale ranging from 1 = totally disagree to 7 = totally agree.

3. Results

3.1 Prevalence and properties of protected values

The proportion of people with protected values was 13.8 %. The proportion of protected values did not vary significantly between males (11.0 %) and females (16.6 %). Also, no significant differences in age were found between participants with protected values ($Mean = 33.83$, $SD = 11.10$) and those without protected values ($Mean = 33.37$, $SD = 10.95$).

We compared participants with and without protected values with respect to the four characteristics of the deontological rule, and the results are shown in Table 3. Participants with protected

Table 2: Scenarios for decision procedures

[Cost-benefit analysis]
The government relied on cost benefit analysis (CBA) to make a decision about whether to build the dam. The economic cost of loss of fish species is included as a cost component of the project. The government estimated the cost of fish species extinction to be 100 million dollars in the case of the extinction of one fish species. Having compared the costs and benefits accrued from the dam project, the benefits from the project were found to be higher than the overall cost. Therefore, the government decided to implement the project.
[Compliance with laws and customs]
The government relied on traditional custom or related laws to make a decision about whether to build the dam. The dam is to be located in an area that is approved by environmental law. Therefore, the government has decided to implement the project.
[Majority rule]
The government relied on the majority opinion of residents to make a decision about whether to build the dam. The government arranged a nationwide poll that included residents on both sides, for and against the project. The project was accepted based on the results of the nationwide opinion poll. Therefore, the government decided to implement the project.
[Deliberation]
The government relied on a deliberation process to decide whether to build the dam. The results of the discussion indicated support for the dam project. Therefore, the government decided to implement the project.

Table 3: Characteristics of deontological rules associated with protected values

	PVs		Non-PVs		<i>t</i> -value	<i>p</i> -value
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Moral obligation	3.68	2.22	2.72	1.83	3.03	0.003
Anger	3.32	2.08	2.59	2.60	2.01	0.048
Resentment	3.51	2.10	2.53	1.76	3.24	0.001
Omission bias	4.63	1.93	5.48	1.54	-3.13	0.002
	%	<i>n</i>	%	<i>n</i>	χ^2	<i>p</i> -value
Quantity insensitivity	72.5	29	50.0	118	6.96	0.008

values tended to possess more psychological traits associated with the deontological rule than participants without protected values ($t = 3.03, p < 0.01$ for moral obligation; $t = 2.01, p < 0.05$ for anger; $t = 3.24, p < 0.01$ for resentment; $t = -3.13, p < 0.01$ for omission bias). The response rate, which was insensitive to quantity, was higher from participants with protected values than from those without ($\chi^2 = 6.96, p < 0.01$ for quantity insensitivity). These results demonstrate the validity of this method for measuring protected values.

3.2 Acceptance associated with protected values and decision rules

The means of acceptance of the four procedures, for participants with and without protected values, are shown in Figure 1. Participants with protected values tended to be less likely to accept a project that was adopted based on a cost-benefit analysis than another procedure. A project that was adopted according to

laws and customs, rather than the other procedures, was less accepted by participants without protected values. The mean levels of acceptance for a project that was adopted through deliberation were highest for both groups.

Furthermore, we carried out a 2 (possession of protected values: with vs. without) \times 4 (decision procedures: cost-benefit analysis, compliance with laws and customs, majority rule, and deliberation) repeated-measures analysis of variance, with acceptance as the dependent variable. The results revealed a significant interaction between possession of protected values and decision procedures ($F(3, 294) = 4.32, p < .01$). Our multiple comparison analysis revealed that participants with protected values were significantly less likely to accept cost-benefit analysis than majority rule and deliberation. We also found that the mean acceptance rates of cost-benefit analysis and compliance with laws and customs were significantly lower than for deliberation among participants without protected values.

Table 4: Assessments of decision procedures for participants with protected values

	Cost-benefit analysis		Compliance with laws & customs		Majority rule		Deliberation		<i>F</i> -value	<i>p</i> -value
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Procedural fairness_1	3.66	2.08	4.32	1.92	4.76	1.51	5.00	1.92	6.61	< 0.001
Procedural fairness_2	3.60	1.77	4.43	1.75	4.90	1.58	5.18	1.72	9.66	< 0.001
Dignity & respect	3.59	1.90	4.41	1.86	4.78	1.70	5.22	1.64	10.25	< 0.001
Residents' rights	4.00	1.99	4.80	1.68	5.05	1.75	5.24	1.85	6.06	0.001
Angry	3.76	1.96	3.41	1.53	3.34	1.46	3.10	1.86	1.66	0.18

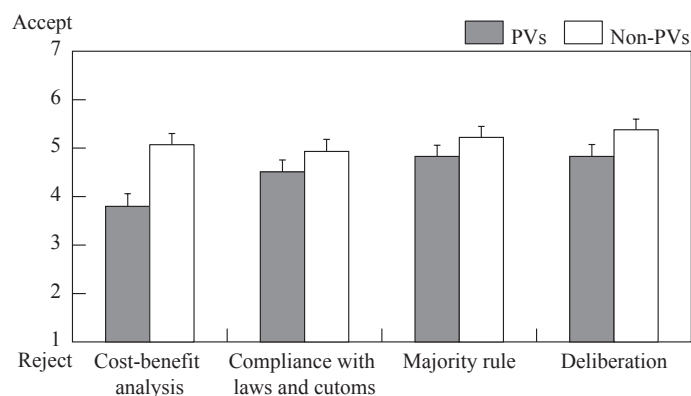


Figure 1: Acceptance associated with protected values and decision rules

3.3 Assessments of decision procedures

Table 4 shows the mean scores of assessments by participants with protected values for the four decision procedures. Apart from the case of angry, significant differences between decision procedures were detected. According to the results of our multiple comparison analysis, the mean scores for cost-benefit analysis were significantly lower than those for majority rule and deliberation.

4. Discussion

The rigid and absolute attitudes associated with protected values mean that public acceptance, in the context of regional policy making, may be impeded. However, the results of this study suggest that acceptability to those who hold protected values can vary depending on the procedures by which a decision is made. This shows that respondents with protected values become less likely to accept a project proposal if it is presented on the basis of cost-benefit analysis, as opposed to another method.

These results are consistent with the findings of the previous study by Hatori & Kajiwara (2012). The fact that the same tendency was observed in different surveys involving data obtained from different samples (i.e., university students in Japan and adults in Indonesia) confirms the robustness of the findings. The new findings of the current study were that respondents' perceptions of fairness also vary, depending on the procedures, in the same manner.

Thus, the low acceptability of cost-benefit analysis in relation to respondents with protected values may be due to their negative rating of cost-benefit analysis on the basis of procedural fairness. Indeed, they were less likely to feel that this procedure was fair and treated people with dignity and respect. It may be that they thought their values should not be traded off in monetary terms. We found that project proposals developed through deliberation were more likely to be accepted by respondents with protected values. Their perception of procedural fairness was also rated higher. These results suggest that, even if people originally think that a project proposal conflicts with their protected values, they might come to accept it as long the decision procedure is perceived to be fair and their values are taken into consideration.

These findings can be related to the value protection model developed by Skitka (2002). The model claims that people are motivated to protect their sense of personal identity when it is threatened, and they do so by making cognitive, affective, and behavioral adjustments. All of these impact whether they will feel that an event is fair or unfair. According to this model, protected values can have a negative effect on perceived procedural fairness. Less is known, however, about whether and how such an effect depends on the nature of the decision procedures, as few studies have considered different procedures. The results of this study suggest that the effects of protected values on perceived procedural fairness can be moderate, depending on the

procedures.

It is important to note that the current research does not claim that the governing authority should not adopt the method of cost-benefit analysis in deciding whether to implement project proposals. Rather, we claim that authorities should pay attention to the possibility that such a method can incur strong opposition from people with protected values. Our findings imply that recruiting support from people who hold protected values requires their understanding that their values have been taken into consideration during the decision-making process.

Note that the present study was conducted based on a scenario survey with a hypothetical project. It is important to study residents' protected values in the context of actual projects, and the effects of decision procedures on their acceptability. Moreover, while this study stressed the effect of deliberation, less is known about how best to facilitate deliberation among people with protected values. This is another important issue to be addressed in future studies.

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