

Effects of voice and similarity on procedural fairness and trust: A dual process model of public acceptance based on representatives' participation

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In citizen participation, a few representatives of the total citizen population participate in discussions with authorities regarding public decisions and policies. The present study examines a dual process model in which the representatives' voice and similarity of values facilitate public acceptance through procedural fairness and trust in representatives, respectively. The results of an experiment employing a scenario method, which included participants from Japan ($n = 211$) and the Netherlands ($n = 200$), indicate that the representatives' voice increased procedural fairness and public acceptance when the similarity of representatives was high. The effects of representatives' voice on public acceptance via procedural fairness was supported in both nations, while other effects of representatives' similarity on acceptance via trust were indicated only in Japan. These results suggest that the indirect voice of citizens, as conveyed by representatives, plays an important role in increasing perceptions of procedural fairness and public acceptance among citizens.

Key words: procedural fairness, public acceptance, representatives' voice, trust, value similarity.

The execution of public policies by authorities requires acceptance by a diverse range of individuals who will be affected by the policies. More specifically, the perception of fairness in the decision-making procedures is crucial in facilitating citizens' acceptance of public decisions (Lind & Tyler, 1988; Thibaut & Walker, 1978; Tyler & Lind, 1992). Citizens often attach greater significance to the extent to which authorities attend to their opinions during the due process of making public decisions, rather than to the common benefits which derive from the decisions *per se* (Lind & Tyler, 1988). Thus, perceptions of procedural fairness have a positive influence on the evaluations of the decisions (Thibaut & Walker, 1978).

Numerous studies have indicated that the ability of individuals to voice their opinions to authorities is a significant antecedent of procedural fairness (Earley & Lind, 1987; Lind *et al.*, 1990; Renn, Webler & Wiedemann, 1995; Van den Bos & Spruijt, 2002; Van den Bos, Wilke & Lind, 1998). Earley and Lind (1987) reported that individuals were more likely to actively accept assigned tasks when they were given opportunities to express their task preferences to their superiors, compared to when they were not

given such opportunities and Lind *et al.* (1990) demonstrated that individuals were more likely to accept judgments when they could express their opinions in court. These studies focused on situations in which an individual voiced their own opinion directly to authorities, and examined the individual's expression in the context of the individual being directly affected by the decisions. In contrast, Smith and Tyler (1996) demonstrated that the perception of procedural fairness in governmental decisions regarding affirmative action stimulated positive evaluations of this policy. Their investigation focused on procedural fairness in governmental decisions, which produce public benefits for citizens. Perceived fairness in the procedures taken by authorities hence not only determines evaluations of decisions that directly profit individuals but also affects the reaction to public decisions, which affect a variety of citizens (Tyler, 1985).

When making public decisions that involve a variety of citizens, the selection of a small number of representatives is one method often adopted to ensure there is an element of citizen participation included in the decision-making process. While every citizen may have the opportunity to directly express their opinions to authorities, they can indirectly express their opinions through the selected representatives. Hence, the assurance that citizens will have an indirect voice through representatives can help to facilitate their acceptance of decisions. While assurances by authorities that individuals will be able to directly express their opinions can promote perceptions of procedural fairness

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(Van den Bos & Spruijt, 2002; Van den Bos *et al.*, 1998), it may likewise be the case that assurances of indirect expression (via representatives) can enhance perceptions of procedural fairness and, in turn, increase acceptance of new policies among citizens.

However, adopting such measures also introduces the issue that authorities may have to take account of certain representatives' opinions, which leads to arbitrary decisions. In such a situation, procedural fairness will not be enhanced despite the fact that representatives have been provided with an opportunity to express their opinions toward authorities. The present study presents a condition in which authorities ensure that the representatives' opinions reflected in public decisions represent their real voice (i.e. an unaltered account), and an alternative condition in which authorities provide opportunities for representatives to express their opinions, but reserve the power to make the final decisions, referred to here as the 'fake voice condition.' The effects of different forms of voice in facilitating perceptions of procedural fairness and acceptance of public decisions among citizens are hypothesized to be higher in the former than in the latter condition.

Several previous studies have also highlighted the significance of trust as a determinant of an individual's acceptance of messages from authorities (Barber, 1983; Hovland, Janis, & Kelley, 1953; Luhmann, 1979). According to Siegrist and Cvetkovich (2000), trust in policymaking organizations correlates with citizens' acceptance of policies. Similarly, Van den Bos *et al.* (1998) stated that trust in authorities can determine the acceptance of decisions.

The aforementioned literature investigated the effects of trust in authorities *per se* on citizens' acceptance. However, trust in representatives may also significantly determine the acceptance of public decisions. Representatives are expected to represent citizens' views and values and to ensure that they benefit from any decision. Citizens are likely to accept public decisions when they trust that representatives speak on behalf of their views and values and seek benefits for them.

The present study focuses on the value similarity between an individual and representatives as a basis for trust in representatives. According to several studies, salient value similarity between authorities and individuals increases trust in the former (Cvetkovich & Nakayachi, 2007; Earle & Cvetkovich, 1997; Siegrist & Cvetkovich, 2000; Siegrist, Earle & Gutscher, 2003). Cvetkovich and Nakayachi (2007), for instance, reported that salient value similarity had a significant effect as a determinant of trust in authorities by residents in a dispute relating to the use of motorboats in a lake.

Representatives in a public decision-making process are likely to represent a variety of citizens with a diverse range of values. However, individual citizens are more likely to prefer representatives who hold similar opinions and seek

appropriate benefits for the citizens. Consequently, possessing value similarity with the representatives strengthens citizens' trust in representatives. Nonetheless, the process through which trust of representatives facilitates public acceptance has rarely been examined. The present study seeks to rectify this and investigates the path from the perception of value similarity with representatives to the acceptance of public decisions via trust in representatives.

Overall, this study focuses on two factors – the representatives' voice and value similarity – in a hypothetical situation where representatives are participating in a public decision-making process. A hypothetical model concerning the effects of these factors on public acceptance operating via procedural fairness and trust in representatives is proposed, as illustrated in Figure 1. A dual process leading to public acceptance is assumed in the hypothetical model of this study. One is a path leading from representatives' voice to procedural fairness, while the other is a path from perceived similarity with the representatives' values to enhanced trust in representatives. Representatives' voice in public decisions is assumed to affect public acceptance via procedural fairness, while each citizen will increase their trust in representatives on the basis of their perception of sharing values with said representatives. Each of these processes is hypothesized to affect the overall acceptance of decisions.

Based on the aforementioned hypothesis, this study compares data from Japan and the Netherlands. These two nations have adopted a parliamentary democracy and thus both attach some importance to the inclusion of representatives and their influence on trust in public decision-making processes. On the other hand, cultural differences have been observed between these two nations; that is, collectivism is widely recognized in Japan, whereas individualism is more conspicuous in the Netherlands (Hofstede, Hofstede & Minkov, 1991). That is, individuals are orientated towards group achievements in the former, while members in the latter are more focused on individual achievements (Triandis, 1995). Since collectivists will be primarily concerned about public decisions being representative of the interests of all citizens, it is predicted that in this study the

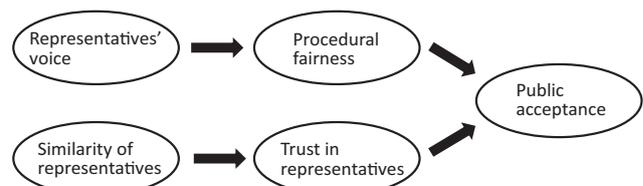


Figure 1 Hypothesized dual process model of public acceptance based on *representatives' voice* and *similarity of representatives*.

Japanese sample will show a stronger tendency to attend to the representatives' voice and procedural fairness and that this will in turn affect levels of public acceptance. In more individualistic contexts, on the other hand, each individual is more likely to focus their attention on public decisions that are beneficial to their own self-interest. Consequently, it is predicted that in this study the sample from the Netherlands will display a stronger focus on perceived similarity with the representatives' opinions or values.

Methods

Participants

A total of 211 undergraduate students (*Female* = 93) participated in the experiment in Japan, while 200 students (*Female* = 49, *Unknown* = 1) were involved in the experiment in the Netherlands.

Experimental design

The experimental design in this study was 2×2 between subjects design, with representatives' voice (real vs. fake) and similarity of representatives (high vs. low) as the two independent variables. The voice factor is a manipulation of the validity of representatives' opportunity to voice their opinions by varying whether the representatives' opinions are ultimately adopted. The similarity factor is a manipulation of the similarities between representatives and an individual's value by varying whether the representatives' opinions were similar to each participant's opinion.

Two hundred and eleven Japanese and 200 Dutch participants were randomly assigned to one of the four experimental conditions.

Procedures

This study adopted a scenario method and distributed to participants a questionnaire titled, 'The Managing Office of the University Cafeteria Proposes a Menu Price Increase.' The voice factor was manipulated as follows. First, for the real voice condition, the following two sentences were provided in the scenario: 'We, the managing office, will decide whether the prices are increased or not based on discussions with the students' and 'Agreements between the managing office of the cafeteria and the representatives of the students will decide whether the menu prices will increase.' Second, for the fake voice condition, in addition to the statements mentioning that the cafeteria administration would discuss the matter with student representatives, the following sentence was inserted: 'We, the managing office of the cafeteria, will decide whether the menu prices will increase, at our discretion.' Next, the similarity factor was manipulated

as follows. For the high similarity condition, the following sentence was included: 'Representatives' opinions were very similar to yours; therefore, you strongly agreed with them.' Conversely, for the low similarity condition, the following sentence was inserted: 'Their opinions were very far from yours; therefore, you strongly disagreed with them.'

After having read the scenarios, the participants responded to the questionnaire on the variables described below using five-point scales; following distribution, 10 to 15 minutes were provided to complete the questionnaire. The scenarios and questionnaire were first prepared in Japanese and subsequently translated into Dutch by a professional translator. Then, after further examination and revision by a Dutch colleague, the Dutch versions of the scenarios and questionnaire were finalized.

Dependent variables

This study measured the evaluation of the procedure relating to the increase in the menu price, trust in the representatives, and public acceptance of the decisions, using the items outlined below. All items were measured using a five-point Likert scale (from 1 = 'not agree at all' to 5 = 'agree very much'). Trust and procedural fairness were hypothesized to be mediating variables in relation to public acceptance.

Trust in representatives. Trust in the student representatives during the scenarios was measured using the following two items: 'Representatives of the students are trustworthy' and 'Representatives of the students in the meeting expressed their opinions sincerely.'

Procedural fairness. The following two items on perceived procedural fairness were included: 'Overall, whether the menu price will be increased is discussed by a fair procedure' and 'The procedure for making a decision regarding the menu price increase is fair as a whole.'

Public acceptance. Public acceptance was measured with the following two items: 'I will be satisfied with the decision regarding the menu price increase as a whole' and 'I will accept the decision regarding the menu price increase through such a procedure.'

Manipulation check items. In addition to the above, the following two items were established for checking the manipulation of representatives' voice: 'Opinions of the students will be adequately reflected if the price and variety of the menu are changed' and 'Opinions of the students will be sufficiently incorporated into the decision regarding the menu price increase.' The similarity of representatives manipulation was checked using the following

two items: 'Representatives' opinions about the menu price increase are similar to mine' and 'Opinions of the representatives are not so different from my opinions regarding the menu price increase.'

Results

The mean age of the Japanese participants was 20.34, while that of the Dutch participants was 22.21, with an overall significant difference in ages between samples, $t(406) = 8.70, p < 0.001$. There was also a significant bias in the sex ratio, $\chi^2(1) = 17.11, p < 0.001$. Accordingly, the effects of age and sex were accounted for in the analysis below.

Manipulation checks

An exploratory factor analysis (maximum likelihood method, promax rotation) involving the above-mentioned items on voice or similarity of representatives revealed two factors. The first factor (eigenvalue = 1.97, contribution ratio = 49.29%) included two items on the similarity of representatives, and the second factor (eigenvalue = 1.21, contribution ratio = 30.14%) was composed of the above two items on representatives' voice. To check the validity of the voice factor manipulation, this study conducted an analysis of covariance (ANCOVA) for the means of the two items related to representatives' voice ($\alpha = 0.77$) with age and sex as covariates, and voice condition, similarity condition, and nation (Japan vs. the Netherlands) as independent variables. The only significant main effect found was for voice, $F(1, 394) = 10.18, p < 0.01$. There were no significant main effects found for age or sex ($F(1, 394) = 0.73, n.s.$; $F(1, 394) = 2.44, n.s.$, respectively), nor for similarity and nation $F(1, 394) = 0.00, n.s.$; $F(1, 394) = 1.21, n.s.$, respectively). These results also indicate the success of the voice factor manipulation. In addition, there was a significant interaction between voice \times nation, $F(1, 394) = 6.63, p < 0.05$, with no other interactions reaching significance. In Japan, the ratings of representatives' voice were significantly higher ($F(1, 394) = 17.25, p < 0.05$) in the real voice condition than in the fake voice condition ($M = 2.95, SD = 0.79$ for the former and $M = 2.50, SD = 0.89$ for the latter), whereas there were no significant differences between the conditions in the Netherlands ($M = 2.84, SD = 0.86$ for real voice and $M = 2.78, SD = 0.84$ for fake voice). Across the full sample, the voice factor manipulation was found to have a significant main effect, although nation-specific *post hoc* analysis suggests that this effect was weaker in the Netherlands data.

The same ANCOVA was conducted for the means of the two items concerning similarity of representatives ($\alpha = 0.81$) to check the validity of the manipulation of

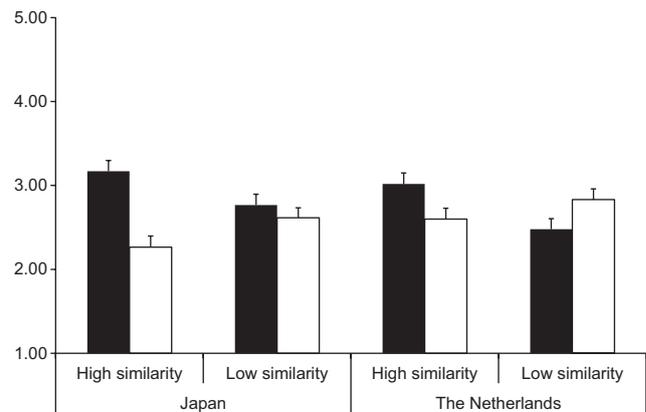


Figure 2 Procedural fairness in Japan and the Netherlands. ■, Real voice; □, Fake voice.

similarity. A significant main effect of similarity was found, $F(1, 396) = 174.87, p < 0.001$, indicating the validity of the similarity manipulation. Neither age nor sex displayed a significant main effect ($F(1, 396) = 0.45, n.s.$; $F(1, 396) = 0.42, n.s.$, respectively), nor did voice or any interactions. However, there was a significant main effect found for nation ($F(1, 396) = 20.51, p < 0.001$), yet in both Japan and the Netherlands, the similarity of representatives was consistently higher in the high similarity condition than in the low similarity condition (in Japan, $M = 3.75, SD = 0.82$ for high similarity and $M = 2.51, SD = 0.81$ for low similarity; in the Netherlands, $M = 3.36, SD = 1.08$ for high similarity and $M = 1.99, SD = 1.03$ for low similarity). These results indicate a successful manipulation of the similarity factor both in the Japan and Netherlands data.

Procedural fairness, trust, and acceptance

Figure 2 presents the means of the two items with regard to procedural fairness ($\alpha = 0.70$). A 2 (Representatives' voice; real vs. fake) \times 2 (Similarity of representatives; high vs. low) \times 2 (Nation: Japan vs. the Netherlands) ANCOVA with age and sex as covariates was conducted. There were no significant main effects for either age or sex ($F(1, 396) = 1.04, n.s.$; $F(1, 396) = 0.15, n.s.$, respectively). There was, however, a main effect found for voice $F(1, 396) = 9.46, p < 0.01$, but similarity and nation were not significant ($F(1, 396) = 1.15, n.s.$; $F(1, 396) = 0.10, n.s.$, respectively), suggesting that voice is a primary factor influencing perceptions of procedural fairness.

In addition, the interaction of voice \times similarity was significant, $F(1, 396) = 19.10, p < 0.001$. In the high similarity condition, there was a simple main effect of voice ($F(1, 396) = 24.25, p < 0.001$), and procedural fairness was rated higher when the representatives' voice was real rather than fake ($M = 3.10, SD = 0.86$ for the former, $M = 2.45,$

$SD = 1.00$ for the latter). Conversely, in the low similarity condition, the simple main effect of voice was not significant, $F(1, 396) = 0.62, n.s.$ There was no significant difference in the ratings of procedural fairness regardless of whether the representatives' voice was real or fake ($M = 2.61, SD = 0.82$ for the former, $M = 2.71, SD = 0.88$ for the latter). On the other hand, the simple main effect of similarity was consistently observed both in real voice and fake voice conditions ($F(1, 396) = 16.55, p < 0.001$; $F(1, 396) = 3.94, p < 0.05$, respectively). Within the real voice condition, the ratings of fairness were significantly higher when representatives had high similarity than when they had low similarity (as already discussed, $M = 3.10$ for the former, $M = 2.61$ for the latter). In contrast, in the fake voice condition, the evaluation of fairness was lower when the representatives had high similarity than when they had low similarity (as stated above, $M = 2.45$ for the former, $M = 2.71$ for the latter). Moreover, there was a significant interaction between voice \times nation, $F(1, 396) = 7.41, p < 0.01$. Among Japanese participants, the simple main effect of voice was significant ($F(1, 396) = 14.53, p < 0.001$), and procedural fairness was significantly higher with real voice than with fake voice ($M = 2.96, SD = 0.86$ for the former, $M = 2.44, SD = 0.91$ for the latter). In the Netherlands, a simple main effect of voice was not found ($F(1, 396) = 0.14, n.s.$), and there was no significant difference between real and fake voice conditions ($M = 2.75, SD = 0.88$ for the former, $M = 2.71, SD = 0.95$ for the latter).

Next, to examine the factors influencing trust, a similar ANCOVA was conducted for the means of the two items concerning trust in the representatives ($\alpha = 0.64$). First, no main effect was found for either age or sex ($F(1, 396) = 0.37, n.s.$; $F(1, 396) = 1.46, n.s.$, respectively). There was also no significant main effect for either voice or nation ($F(1, 396) = 0.07, n.s.$; $F(1, 396) = 0.37, n.s.$) and none of the interactions were significant. There was, however, a main effect of similarity ($F(1, 396) = 13.65, p < 0.001$), with the representatives in the high similarity conditions displaying significantly higher trust than those in the low similarity conditions ($M = 3.44, SD = 0.73$ for the former, $M = 3.12, SD = 0.81$ for the latter).

A similar ANCOVA was conducted for the means of the two items regarding public acceptance ($\alpha = 0.56$) shown in Figure 3. The results indicate that there were no significant main effects for either age or sex ($F(1, 396) = 1.65, n.s.$; $F(1, 396) = 0.08, n.s.$). There were significant main effects for both voice and similarity ($F(1, 396) = 3.95, p < 0.05$; $F(1, 397) = 9.48, p < 0.01$, respectively), but there was no significant main effect of nation ($F(1, 396) = 2.59, n.s.$), suggesting that both voice and similarity are crucial for public acceptance in both samples.

The interaction between voice and similarity was also significant, $F(1, 396) = 6.02, p < 0.05$. However, there

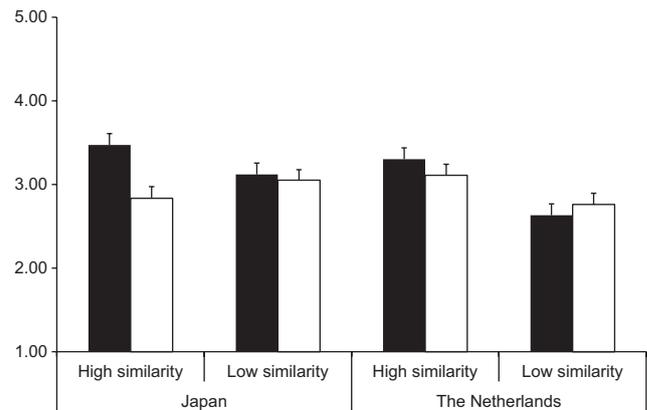


Figure 3 Public acceptance in Japan and the Netherlands. ■, Real voice; □, Fake voice.

was a simple main effect of voice only in the high similarity condition, as in the low similarity condition the main effect was non-significant ($F(1, 396) = 10.44, p < 0.01$; $F(1, 396) = 0.11, n.s.$, respectively). When representatives' similarity was high, acceptance was higher when the voice was real rather than fake ($M = 3.40, SD = 0.83$ for the former, $M = 2.99, SD = 0.99$ for the latter). However, when the similarity was low, there was no difference in the ratings of acceptance, regardless of whether the voice was real or fake ($M = 2.86, SD = 0.93$ for the former, $M = 2.91, SD = 0.99$ for the latter). Meanwhile, the simple main effect of similarity was observed only in the real voice condition, whereas it was not significant in the fake voice condition ($F(1, 396) = 17.99, p < 0.001$; $F(1, 396) = 0.30, n.s.$, respectively). Within the real voice condition, acceptance was higher when representatives' similarity was high compared to when it was low (as mentioned above, $M = 3.40$ for the former, $M = 2.86$ for the latter). In contrast, in the fake voice condition, there was no difference in acceptance by the level of representatives' similarity (as discussed, $M = 2.99$ for high similarity, $M = 2.91$ for low similarity).

Moreover, there was a significant interaction between similarity and nation, $F(1, 396) = 5.11, p < 0.05$. Among Japanese, a simple main effect of similarity was not found ($F(1, 396) = 0.36, n.s.$), their public acceptance displayed no significant difference between the high similarity and low similarity conditions ($M = 3.16, SD = 0.94$ for high similarity, $M = 3.08, SD = 0.88$ for low similarity). However, in the Netherlands sample, a simple main effect of similarity was found ($F(1, 396) = 14.75, p < 0.001$), with the ratings of public acceptance significantly higher in the high similarity condition when compared to the low similarity condition ($M = 3.21, SD = 0.94$ for the former, $M = 2.70, SD = 1.02$ for the latter).

Table 1 Correlation coefficients among variables between Japan and the Netherlands

		1	2	3	4	5
Japan (<i>n</i> = 211)	1. Representatives' voice		0.60***	0.24***	0.38***	0.41***
	2. Procedural fairness			0.18*	0.27***	0.58***
	3. Similarity of representatives				0.43***	0.25***
	4. Trust in representatives					0.27***
	5. Public acceptance					
The Netherlands (<i>n</i> = 200)	1. Representatives' voice		0.47***	0.25***	0.27***	0.41***
	2. Procedural fairness			0.23**	0.35***	0.40***
	3. Similarity of representatives				0.30***	0.44***
	4. Trust in representatives					0.22**
	5. Public acceptance					

Note: Pearson's product moment correlation coefficients, *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$.

Examination of hypothesized dual process model by SEM

Table 1 illustrates the correlations between the variables used in the present study. In both Japan and the Netherlands, representatives' voice correlated most strongly with procedural fairness and next with public acceptance. In addition, similarity with representatives displayed strong correlations with trust and acceptance. The correlation coefficients between trust and fairness were lower compared with many of the other coefficients among other variables. Their VIF = 1.08 in Japan and VIF = 1.14 in the Netherlands were indicated.

Based on these results, a simultaneous analysis of the data from Japan and the Netherlands was conducted in order to test the proposed dual process model. The findings show that the data fitted to the path model outlined in Figure 4. The chi-square statistic of the model was significant due to the large samples ($n = 405$, $\chi^2 = 87.34$, $p < 0.001$), but other fit indices were high (GFI = 0.956, AGFI = 0.918, RMSEA = 0.07). The first indices presented in pairs in the figure represent those from Japan, while the second represent those from the Netherlands. There was no difference indicated between these two nations. Two paths were also found in regard to public acceptance. One was a path from procedural fairness ($\beta = 0.71$ for Japan, $\beta = 0.61$ for the Netherlands), while the other was from trust in representatives ($\beta = 0.21$ for Japan, $\beta = 0.23$ for the Netherlands). In addition, a path from representatives' voice was found for procedural fairness ($\beta = 0.79$ for Japan, $\beta = 0.90$ for the Netherlands), and a path from similarity of representatives was demonstrated for trust in representatives ($\beta = 0.70$ for Japan, $\beta = 0.51$ for the Netherlands).

Next, a mediational analysis was conducted to examine the hypothesis that relationships between representatives' voice, similarity of representatives, and public acceptance would be mediated by procedural fairness or trust in representatives. Preacher and Hayes (2008) proposed a method

to analyze such mediation hypotheses, using bootstrapping to directly assess the reliability of indirect effects. Confidence intervals were estimated using the 95% bias-corrected and accelerated bootstrap approach based on 5000 bootstrap samples. Table 2 shows the indirect effect of voice and similarity on public acceptance (via procedural fairness or trust in representatives) in Japan and the Netherlands. The results indicate that the indirect effect of *voice* on public acceptance was significant in both nations (Japanese, $b = 0.32$, 95% CI = 0.22 to 0.44; Dutch, $b = 0.15$, 95% CI = 0.07 to 0.25). Thus, procedural fairness mediated the relationship between representatives' voice and public acceptance. Furthermore, the indirect effect of similarity of representatives on public acceptance was significant in the Japanese sample, but not significant in the Netherlands sample. Thus, although trust in representatives mediated between the similarity of representatives and public acceptance in Japan, this mediating effect was not found in the Netherlands.

Discussion

This study explored representatives' voice and perceived similarity of values on public acceptance among citizens who entrusted expression of their opinions to representatives. Two paths relating to increases in public acceptance were examined: the first led from representatives' voice via procedural fairness and the second derived from value similarity via trust in representatives.

A cross-sectional analysis of data collected in Japan and the Netherlands revealed main effects for voice and similarity on levels of public acceptance. These indicate that representatives' voice and perceived similarity with representatives were both important factors in determining public acceptance. Furthermore, similarity was the only factor that displayed a main effect on the level of trust in

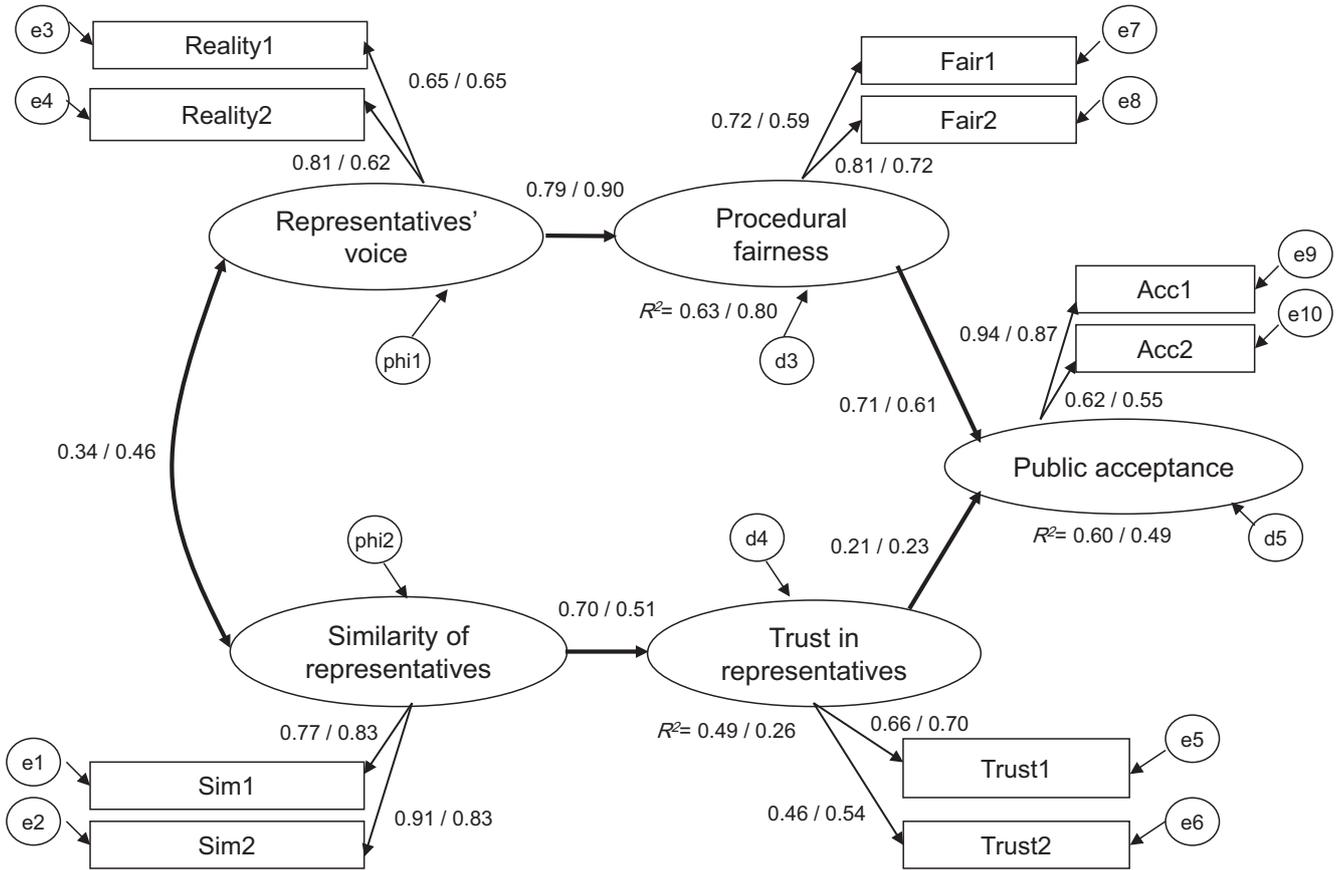


Figure 4 Dual process model as a result of simultaneous analyses in Japan and the Netherlands.

Table 2 Indirect effect of delegates' voice and similarity of delegates on social acceptance

Process	Indirect effect estimate	Standard error	Sobel test(z)	Boostrapping 95% CI	
				Lower	Upper
Voice → Fairness → Acceptance					
Japan	0.32	0.05	6.03**	0.221	0.435
The Netherlands	0.15	0.05	3.33**	0.071	0.252
Similarity → Trust → Acceptance					
Japan	0.08	0.03	2.52*	0.021	0.158
The Netherlands	0.02	0.02	1.27	-0.009	0.062

Note: Sobel test (z), ****p* < 0.001; ***p* < 0.01; **p* < 0.05.

representatives, whereas voice was found to have a main effect on procedural fairness. These results suggest that level of trust in representatives was partly determined by similarity, while perceptions of procedural fairness were primarily affected by voice.

In addition to the above, the interaction of voice and similarity was found to effect both perception of procedural fairness and levels of public acceptance, which was not predicted beforehand. These were both higher in the real voice condition than in the fake voice condition when per-

ceived similarity of representatives was high, while there was no significant difference between voice conditions when the similarity was low. In other words, the effects of representatives' voice to procedural fairness and public acceptance were more conspicuous when representatives were perceived as similar. As a result, representatives' level of involvement can increase perceptions of the fairness of the decision procedure and public acceptance when citizens expect representatives to express similar opinions as themselves. This might be because citizens seek their own

benefits, and they are more likely to prefer the voice of representatives who have high similar expectations. In contrast, the voice of representatives whose similarity is low might not be useful for citizens in acquiring benefits. Further examination of how precisely perceptions of similarity with representatives alter the effect of representatives' voice is an important task for future research.

In this study, interactions of voice and nation on procedural fairness, and of similarity and nation on public acceptance were also found. Procedural fairness ratings among Japanese were higher in the real voice conditions than for the fake voice conditions, while there was no significant difference between the voice conditions for Dutch participants. On public acceptance, there was no difference between the high and low similarity conditions in Japan, whereas it was significantly higher in the high similarity condition than in the low similarity condition in the Netherlands. These results indicate that the directness of representatives' voice affected perceptions of procedural fairness among the Japanese, while perceived similarity with representatives affected public acceptance among the Dutch. On the basis of these results, this study proposes that the directness of representatives' voice and perceived similarity with representatives had different effects on processes of acceptance of public decisions, according to cultural differences within the two societies studied, such as differing levels of collectivism and individualism, even in nations which have a similar parliamentary system. First, as collectivism is higher in Japan than in the Netherlands, citizens in Japan will be more strongly motivated to work towards group achievements, and to attend to both the manner in which representatives' opinions are addressed and overall procedural fairness relating to the mutual interests of all citizens. Second, in the Netherlands, where individualism is higher than it is in Japan, each Dutch individual will be relatively more likely to focus on their particular level of similarity with representatives, as they will be more strongly focused on individual achievements. However, further investigation to address these proposed cultural differences and their outcomes is required before any firm conclusions can be offered.

In order to test the proposed dual process model, this study examined two paths: the first was traced from representatives' voice via procedural fairness to public acceptance and was found to be significant for participants in both Japan and the Netherlands; the second travelled from perceived similarity via trust in representatives to public acceptance, and was also found in both Japan and the Netherlands. Thus, the presence of a dual process in which representatives' voice affected citizens' public acceptance by way of procedural fairness and similarity affected by trust in representatives was supported. This dual process model is likely to be more widely applicable to other nations that have adopted a parliamentary democracy and

attach importance to representatives' voice and trust in representatives among citizens in public decision-making processes.

In order to examine the indirect effects of representatives' voice and perceived similarity with representatives on public acceptance, a mediational analysis was also conducted. The results from this analysis reveal that perceptions of procedural fairness mediated the relationship between the relative level of representatives' voice and public acceptance for participants in both Japan and the Netherlands. However, the second proposed mediated path, travelling from perceived similarity with representatives via levels of trust in representatives to acceptance, was found only in the Japanese sample. Hence, the mediating effects of level of trust on the relationship between perceived similarity with representatives and public acceptance was not found in the Netherlands sample. Consequently, the dual process model was confirmed only in Japan.

As shown in Figure 2, however, while all of the coefficients for representatives' voice, trust, and acceptance were significant in both samples they had lower values in the Netherlands than in Japan. These differences were interpreted as being due to the inconsistencies between Japan and the Netherlands in the indirect effects identified in the mediational analysis discussed above. It is thus important to investigate in further detail whether the indirect effect of perceived similarity with representatives on public acceptance, via levels of trust in representatives, is an observable pattern in nations other than Japan.

Another limitation of this study relates to the scenario used in the experiment, that is, a proposed increase in menu prices at a university cafeteria. We confirmed earlier that many students frequently purchase lunch in the cafeteria both at the relevant university in Japan and in the Netherlands. Thus, the scenario presented was likely to involve direct personal interest for each participant. This was a useful approach for raising participants' involvement in the experiment. However, citizens sometimes pay attention to procedural fairness in situations involving small personal interests. For instance, according to Smith and Tyler (1996), the perceived fairness of procedures by the government affected citizens' acceptance of national public policies, such as affirmative action. Thus, it is clear that perceptions of procedural fairness can determine the relative acceptance of public decisions that involve a large number of citizens and are not necessarily decisions that directly relate to an individual's personal interests. Further empirical research is required to examine the applicability of the findings in this study to other public decision-making process contexts where personal interest is not a factor.

Previous studies have reported that assurances from authorities that they will represent an individual's expression increases the individual's evaluation of procedural fairness (Earley & Lind, 1987; Lind *et al.*, 1990; Van den

Bos & Lind, 2002; Van den Bos & Spruijt, 2002; Van den Bos *et al.*, 1998). In the present study, it was demonstrated that not only representation of the individual's expression but also the voice of representatives could have effects on perceived procedural fairness. Thus, for citizens involved in public decisions it seems that both a direct and indirect voice can be a determinant as to whether a decision procedure is judged to be fair.

An examination of the effects of representatives on public acceptance is vital for analyzing consensus formation processes among the diverse stakeholders involved in citizen participation. For example, when authorities make a public decision concerning various citizens, some individuals attach great importance to the decision, while others attribute little significance to it. In such cases,

differences in the level of relevancy, perceptions of representatives' voice, and perceived similarity, along with perceptions of procedural fairness and relative degrees of trust in representatives may produce different effects on an individual's acceptance. As for public acceptance, the effects of perceived value similarity, operating via levels of trust in representatives, may be a stronger influence than the effects derived from the representatives' voice, operating through perceptions of procedural fairness, when citizens focus on their individual interests. Conversely, the effect derived from representatives' voice operating through perceptions of procedural fairness may increase in importance for public decisions that are not concerned with individual interests. Future investigations to explore these effects will be undertaken.

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