

## CROSS-CULTURAL COMPARISON OF USA AND SOUTH KOREA IN ESTIMATED RATE OF ORGAN DONATION

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In this study, we examined cultural differences in estimation of both the percentage of people who would donate organs to others when they died and the percentage of people who would discuss their decision to donate organs with their parents. Participants were 79 undergraduates at a Midwestern university in the USA and 116 undergraduates at a university in Seoul, Republic of Korea. Results showed that the South Korean participants exhibited a greater false consensus effect in regard to discussion with parents about organ donation than did the group from North America. Among those not willing to donate organs, the underestimation of the South Koreans was greater than that the North Americans regarding the willingness of others to discuss donation with their parents. These findings imply that campaigns promoting organ donation may need to be targeted at correcting people's misperceptions about relative prevalence of organ-donation-related behaviors, thereby motivating people to sign up for organ donation, and encouraging discussion by donors with their parents.

*Keywords:* false consensus, organ donation, cross-cultural research, South Korea, USA.

Donating one's organs at the time of one's death (i.e., cadaveric organ donation) is a decision that an individual can take to save or improve other

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people's lives. If an individual is willing to make cadaveric organ donation, discussion about this decision with family members is necessary and helpful so that the family can be prepared to consent to the donation at the time of the donor's death. Even if an individual is enrolled in an organ donor registry, it is often difficult to carry out the donor's intention without family consent. Because talking about organ donation can involve the topic of death, which may possibly be uncomfortable, discussing it with one's family can be difficult for the donor. For young adults, communicating their donation wishes to their parents can be a challenge, especially if the donors perceive that cadaveric organ donation, and discussing it with parents, are not popular or common acts in their culture.

Cultural differences can exist in individuals' views about organ donation and their perceptions of other people's related behaviors. For example, Yun and Park (2010) found that, compared with people in the USA, South Koreans showed less intention to talk with family about organ donation and less intention to enroll in an organ donor registry. Even in the USA, people differed according to ethnic origin (e.g., Asian Americans vs. White Americans) in how various psychological predictors related to behavioral intentions for organ donation (see e.g., Park, Shin, & Yun, 2009; Park, Smith, & Yun, 2009).

Cultural differences can also exist in the way in which people estimate others' opinions and behaviors. Termed the *false consensus effect* (FCE; Ross, Greene, & House, 1977), people endorsing position X mistakenly regard this position as more common and appropriate than do those who endorse position Y. The FCE has been observed in different countries, such as the Netherlands (Jones, 2004), the Middle East (Yinon, Mayraz, & Fox, 1994), and Japan (Karasawa, 2003). Cultural differences and similarities have also been documented in various social settings. For example, South Koreans were found to exhibit greater FCE on some attributes associated with meeting procedures (e.g., ability to take good notes, being prompt for meetings) than did people from the USA, although these two groups did not differ in FCE either in their opinions related to an academic setting, such as cheating, and getting good grades, or in their opinions about gender equality (Park, 2012).

Perceptions of how the self is related to others also differ according to culture. People in Asian cultures would be more likely to see themselves as interdependent and connected with others, whereas Westerners tend to view themselves as independent and separate from others (Markus & Kitayama, 1991; Sedikides, Gaertner, & Toguchi, 2003). Thus, people can differ in overestimation or underestimation of what is valued according to the culture in which they live. For example, as interdependency and being connected may be more highly prioritized in Asian cultures than in Western cultures, Park and Ahn (2008) found that, compared to people living in the USA, South Koreans underestimated others' interdependent self-construal.

In sum, regarding cultural differences in attitudes toward organ donation, we examined the following research questions:

**Research Question 1:** Will South Koreans and North Americans differ in the level of their false consensus about organ donation, and in their willingness to discuss organ donation with their parents?

**Research Question 2:** Will South Koreans and North Americans differ in estimating the percentage of others who are willing to donate their organs and the percentage of others who are willing to discuss the donation of their organs with their parents?

Although FCE concerns the difference in an estimate about the prevalence of a particular position between those who endorse this position and those who endorse an alternative position, *overestimation* and *underestimation* refer to the differences between an individual's estimate of the prevalence of the position that he or she endorses and the percentage of people who actually do endorse that position.

## Method

### Participants

**USA.** Participants were undergraduates ( $N = 79$ ; 57 women, 22 men;  $M_{\text{age}} = 19.95$  years;  $SD = 2.09$ ) at a large Midwestern university in the United States of America. In terms of ethnicity, 78.5% were White Americans, 10.1% African Americans, 4% Asian Americans, 4.1% other ethnicities, including Native Americans, Hispanic, and Pacific Islanders, and a further 3.3% did not specify ethnicity.

**South Korea.** Participants were undergraduates ( $N = 116$ ; 74 women, 62 men;  $M_{\text{age}} = 23.03$  years;  $SD = 2.91$ ) at a university in Seoul, Republic of Korea. All participants were ethnically Korean.

### Procedure

To recruit participants, we asked instructors for permission to approach their students. Extra credit opportunity was offered in exchange for voluntary participation. Our questionnaire was distributed during regularly scheduled class time, completed individually by each participant, and collected without any identification information.

### Measure

A questionnaire was composed in English and then translated into Korean. To ensure compatibility between the two languages, the Korean version of the questionnaire was back-translated into English by another translator. Any discrepancies during the translation and back-translation processes were resolved with due consideration for meanings in both languages.

**Independent variables.** Participants were asked to indicate (*yes* or *no*) whether or not they would be willing to donate organs at the time of their death. In addition, they were asked to estimate the percentage of people in their country who would be willing to donate organs at the time of their death. Example items were as follows: “Are you willing to donate your organs at the time of your death?” “What percentage of people in the United States (Korea) do you think are willing to donate their organs at the time of their death?”

Similar items were used to measure participants’ willingness to discuss their intention to donate organs with their parents and their estimate of the percentage of people in the United States (Korea) who would be willing to have this discussion with their parents. Because the estimation item measured only participants’ estimate of the percentage of people willing to donate their organs at the time of death and our project focused on how people estimate the percentage of others who have the same attitude as they have, we also calculated the estimate of the group who were not willing to donate organs about the percentage of others who would not be willing to donate. For this group, we subtracted the percentage of people not willing to donate their organs from 100 to arrive at the percentage of people thought by this group to be willing to donate their organs.

**Dependent variables.** We assessed FCE by subtracting from a participant’s estimate of consensus for his/her position the average estimate for that position given by all participants in each sample who did not endorse that position. Positive numbers indicate an FCE. Over- and underestimation (EST) was calculated by computing the difference between a participant’s estimated consensus for his or her position and the actual percentage of all participants in each sample who endorsed that position. Positive numbers indicate an overestimate, and negative numbers indicate an underestimate.

### Data Analysis

RQ1 was analyzed with a 2 (FCE type: discussion with parents vs. cadaveric organ donation)  $\times$  2 (culture: USA vs. South Korea)  $\times$  2 (willingness for cadaveric organ donation [WCOD]: yes vs. no)  $\times$  2 (willingness for discussion with parents [WDP]: yes vs. no) mixed analysis of variance (ANOVA). FCE type was a within-subject factor, and culture, WCOD, and WDP were between-subject factors. For RQ2, instead of FCE type, we used EST type (discussion with parents vs. cadaveric organ donation) for a four-way ANOVA.

## Results

For RQ1, there was a significant interaction effect for FCE type and culture,  $F(1, 182) = 5.51, p = .02, \eta^2 = .012$ . For the effect of FCE on willingness to discuss organ donation with parents, South Koreans had a higher false consensus

level ( $M = 20.02$ ,  $SD = 17.15$ ) than did North Americans ( $M = 8.72$ ,  $SD = 18.65$ ),  $t(191) = 4.34$ ,  $p < .001$ ,  $\eta^2 = .09$ . On the other hand, for FCE about cadaveric organ donation, South Koreans ( $M = 20.12$ ,  $SD = 21.52$ ) and North Americans ( $M = 25.18$ ,  $SD = 19.13$ ) did not differ,  $t(190) = 1.67$ ,  $p = .10$ ,  $\eta^2 = .014$ .

There was a significant interaction effect for FCE, WCOD, and WDP,  $F(1, 182) = 4.35$ ,  $p = .04$ ,  $\eta^2 = .009$ . For the group who were willing to donate organs, among those who said they were willing to discuss the donation with their parents ( $M = 25.04$ ,  $SD = 20.98$ ) the percentage who exhibited FCE was greater than among participants who said they were not willing to discuss the donation with their parents ( $M = 15.11$ ,  $SD = 20.27$ ),  $t(163) = 2.79$ ,  $p = .006$ ,  $\eta^2 = .05$ . Regarding FCE, no other main and interaction effects were significant.

For RQ2, there was a significant interaction effect of EST type, culture, and WCOD,  $F(1, 182) = 10.85$ ,  $p = .001$ ,  $\eta^2 = .035$ . For the group who were not willing to donate organs, the underestimation was greater among South Koreans ( $M = -53.88$ ,  $SD = 13.31$ ) than it was among North Americans ( $M = -33.50$ ,  $SD = 26.20$ ) in regards to the percentage of others who would be willing to discuss their donation with parents,  $t(24) = 2.60$ ,  $p = .02$ . For those who were not willing to donate organs, North Americans ( $M = -61.63$ ,  $SD = 14.61$ ) and South Koreans ( $M = -61.11$ ,  $SD = 17.79$ ) did not differ in their estimation of the percentage of others who would be willing to donate organs,  $t(24) = 0.07$ ,  $p = .95$ . For those who were willing to donate organs, North Americans ( $M = -37.38$ ,  $SD = 18.87$ ) and South Koreans ( $M = -40.52$ ,  $SD = 20.27$ ) did not differ in their estimation of the percentage of others who would be willing to discuss the donation with their parents,  $t(163) = 1.02$ ,  $p = .31$ . For those who were willing to donate organs, North Americans ( $M = -36.45$ ,  $SD = 19.55$ ) and South Koreans ( $M = -40.99$ ,  $SD = 22.32$ ) also did not differ in their estimation of the percentage of others who would be willing to donate organs,  $t(164) = 1.37$ ,  $p = .17$ .

There was a significant main effect for EST type,  $F(1, 182) = 8.96$ ,  $p = .003$ ,  $\eta^2 = .015$ . Participants' underestimation of the percentage of others who would be willing to donate organs ( $M = -42.29$ ,  $SD = 21.96$ ) was greater than their underestimation of the percentage of others who would be willing to discuss the donation with their parents ( $M = -40.74$ ,  $SD = 19.59$ ). No other main and interaction effects were significant for EST.

## Discussion

In this study, we examined how people perceived the willingness of others to donate their organs and also people's perception of the willingness of donors to discuss this donation with their parents. For FCE, we found differences between South Koreans and North Americans in their willingness to discuss the donation with their parents, but not regarding willingness to make cadaveric organ

donation. That is, South Korean participants perceived their own behavioral choices as being more prevalent in the general population than did North American participants, but only for willingness to discuss the decision to donate with their parents. In line with the results of Park (2012), in the current study we found that there were cultural differences between South Koreans and North Americans in FCE for attribute items, but not for opinion items.

We also showed that cultural differences or similarities in FCE could vary depending on the subject of the FCE. People who were willing to donate their organs, but unwilling to discuss the donation with their parents, tended to perceive organ donation to be less common than did people who were willing to donate and also willing to have a discussion with their parents about the organ donation. Among those who were willing to donate organs, the group of people who were unwilling to discuss their organ donation with their parents may have considered this topic of discussion to be relatively more difficult than did the group of people who were willing to discuss organ donation with their parents. Family communication style can be an important factor for engagement in discussion about organ donation with one's parents (Park, Yun, Smith, & Morrison, 2010). As such, our participants who were unwilling to discuss the donation of their organs with their parents may have viewed others as also having a family communication style that would be unfavorable to open discussion about organ donation. Thus, considering the necessity of obtaining family consent for cadaveric organ donation to take place, participants who were willing to donate organs but said they would be unwilling to discuss this donation with their parents might have viewed organ donation as being less common than the other participants did.

Although in the FCE people's actual position is considered (e.g., yes vs. no) for judging consensus, in calculation of underestimation actual position is not considered. We found no cultural differences among the participant groups, but, regardless of the position that an individual participant endorsed, the participants showed greater underestimation of the percentage of others who would be willing to donate organs than they did of the percentage of others who would be willing to discuss organ donation with parents. This finding may be attributable to general characteristics of these two different behaviors. Whereas cadaveric organ donation is an act performed on a dead body, discussion of the decision to donate organs with one's parents is an action that any living person can perform at any time. People may discuss the subject of organ donation with their parents before forming willingness or unwillingness to donate organs at any time during their lifetime. Hence, our finding with regard to the underestimation of participants might have been greater when they were estimating the percentage of others willing to donate organs than when they were estimating the percentage of others who would be willing to discuss the donation with their parents.

Among those who were unwilling to donate organs, compared to the North American group, the underestimation of the percentage of others who would be willing to discuss organ donation with their parents was greater among the South Korean participants. Regardless of whether they were willing or unwilling to discuss the donation with their parents, the South Koreans who said they were unwilling to donate organs might have perceived that discussion with their parents about organ donation was not something many Koreans would do, possibly because of their own unfavorable view of cadaveric organ donation and their view of Korean cultural characteristics. Roth and Voskort (2014) showed that people use information about the target, such as stereotypes, when estimating consensus for a position. It is, therefore, possible that our participants used stereotypical or culturally characteristic information in their respective cultures about young adults discussing organ donation with parents when responding to the question.

Despite our statistically significant findings, we did not find many main and interaction effects to be statistically significant. The absence of many findings of much significance might be related to the limitations of this study. First, the relatively small size of the samples from the USA and South Korea, as well as the difference in size of samples from each country, need to be considered when interpreting the results. Second, only college students completed the questionnaire and we did not recruit diverse age groups. Although FCE can occur across all age groups (Yinon et al., 1994), a more representative sample might have generated different results. Third, in calculating underestimation, we did not use actual rates of organ donation of the general population in each country. Instead, we used the data of all participants in our sample. Hence, the exact extent of underestimation and the accuracy of the estimation were not assessed. Fourth, we included only some of the variables that could explain why the various perceptions were formed. Thus, future researchers should try to incorporate diverse perspectives in explaining people's perception biases, or lack thereof, for richer explanations than those available in the current study.

Despite these limitations, our results have practical implications for health practitioners planning to campaign for organ donation with people willing or unwilling to donate. Campaigns can become successful by highlighting the prevalence of organ donation among the target population. Given that people are more likely to engage in certain behaviors when those behaviors are perceived as popular among the public (Rimal & Real, 2003) than when they are not, telling a target group that is unwilling to donate organs when they die, that organ donation is actually prevalent among that population may encourage that group (e.g., ethnic minorities) to think about their behavioral intention.

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