

## Appendix A

### Analysis of individual difference variables

**Results.** Descriptive statistics for SVO, risk-taking, risk-perception and general trust are presented in Table 1. The continuous SVO scores did not differ significantly between Japanese and European samples,  $t(110) = -.442, p = .659$ , with both showing mean scores at the lower end of the cooperative SVO spectrum. An additional chi-square test of independence compared the numbers of participants falling within each SVO category for the two samples. Again, there was no significant difference,  $\chi^2(3, N = 112) = 4.651, p = .199$ . In Japan, 50% of participants qualified as cooperative, 46.6% as individualistic and 3.4% as altruistic. In Europe, 63% of participants were classified as cooperative, 35.2% as individualistic and the remaining 1.8% as competitive.

With regard to the risk-taking scores from the different subscales, no significant differences were found between Japanese and European participants on ethical risk-taking,  $t(110) = .526, p = .60$ . However, on all other subscales, including financial risk-taking,  $t(110) = -3.937, p < .001$ , health/safety risk-taking,  $t(111) = -1.899, p = .06$ , recreational risk-taking,  $t(111) = -4.903, p < .001$ , and social risk-taking,  $t(110) = -3.826, p < .001$ , the Japanese scores were significantly (or near-significantly) lower than the scores from the European participants. With regard to risk-perception, no significant differences were found between the two samples apart from the recreational sub-scale,  $t(110) = -2.362, p = .02$ , which indicated higher risk-perception in the Japanese participants. Comparing the general trust scores, no significant differences were found,  $t(112) = -.273, p = .155$ . With mean trust scores of 20.05 in Japan and 20.35 in Europe (out of a possible 35 points which indicate perfect trust), both samples showed moderately high levels of general trust.

Table 1

*Descriptive Statistics for SVO, Trust and Risk-Taking*

	Country	
	Japan	UK
<b>SVO, continuous</b>	24.29 (15.14)	25.50 (13.68)
<b>Trust</b>	20.05 (6.03)	20.35 (5.73)
<b>Risk-taking</b>		
Ethical risk-taking (e.g. Having an affair with a married man/woman)	12.83 (5.03)	12.36 (4.40)
Financial risk-taking (e.g. Betting a day's income at the horse races)	9.80 (4.66)	13.28 (4.70)
Health/safety risk-taking (e.g. Driving a car without wearing a seat belt)	15.37 (5.66)	17.52 (6.35)
Recreational risk-taking (e.g. Going camping in the wilderness)	15.56 (6.54)	22.94 (9.34)
Social risk-taking (e.g. Admitting that your tastes are different from those of a friend)	26.34 (4.83)	29.65 (4.27)
<b>Risk-perception</b>		
Ethical risk-perception (e.g. Having an affair with a married man/woman)	26.14 (4.60)	24.79 (5.16)
Financial risk-perception (e.g. Betting a day's income at the horse races)	31.50 (7.01)	31.19 (5.73)
Health/safety risk-perception (e.g. Driving a car without wearing a seat belt)	30.86 (5.58)	30.38 (5.22)
Recreational risk-perception (e.g. Going camping in the wilderness)	27.47 (5.48)	24.68 (7.02)
Social risk-perception (e.g. Admitting that your tastes are different from those of a friend)	18.19 (5.41)	18.33 (4.65)

For the combined group of Japanese and European participants, a Pearson product-moment correlation revealed a significant relationship between the continuous SVO score and the number of exit moves an individual made,  $r = -.236$ ,  $n = 112$ ,  $p = .012$ , showing that higher prosociality was related to lower numbers of exit moves. Further correlation analyses were conducted for SVO and cooperation measures. These included a separate analysis for game conditions with optional tools, comparing correlations in games with no tool purchase to those with tool purchase. We decided to omit a more detailed report of these results because they were non-significant and did not add value to our findings.

Additional analyses for the risk-taking scores revealed significant correlations between mean exit points and financial risk-taking,  $r = -.246$ ,  $n = 112$ ,  $p = .009$ , health and safety risk-taking,  $r = -.190$ ,  $n = 113$ ,  $p = .044$ , recreational risk-taking,  $r = -.335$ ,  $n = 113$ ,  $p < .001$ , and social risk-taking,  $r = -.203$ ,  $n = 112$ ,  $p = .032$ . In all cases, lower risk-taking was associated with higher mean exit points. No significant overall correlation was found for general trust and mean exit points,  $r = -.057$ ,  $n = 114$ ,  $p = .545$ .

**Discussion.** With regard to the influences of individual difference variables, SVO scores were found to be very similar between the two samples, corroborating previous studies investigating SVO prevalence such as Yamagishi et al. (2013), Balliet, Parks, and Joireman (2009), and Krockow et al. (2017).

The predicted differences in risk-taking and general trust were only partly confirmed. As expected, risk-taking scores in Japan were significantly lower across four out of five subscales while risk-perception remained similar to the European participants. These results indicate higher risk-aversion in Japan with the exception being ethical risk taking (e.g., having an affair with a married man/woman) where the self-reported likelihood of engaging in risky activities appears to be similar to Europe. These differences in risk-taking are in

agreement with previous experimental evidence for lower cooperation in risky games by Japanese compared to US participants (Cook et al., 2005; Krockow et al., 2017).

General trust, however, did not differ across Japan and Europe as both samples scored moderately high on the general trust questionnaire. This replicates previous results by Krockow et al. (2017) but is in contrast with repeated findings of lower general trust in Japanese participants compared to Western (US) participants (e.g., Kiyonari et al., 2006; Yamagishi & Yamagishi, 1994). It is possible that European participants differ from US participants and are, in fact, similarly trusting in situations of low social certainty as Japanese participants. Another explanation for the surprising results could be the short trust questionnaire that was used to measure general trust. Future research could follow up on these results and conduct more inclusive cross-cultural comparisons of general trust, comparing a number of different Western and non-Western nations.

Finally, correlations between individual differences and cooperation measures in the games were examined. We predicted that higher levels of prosociality, risk-taking and general trust would be positively related to cooperativeness. Indeed, SVO was correlated with cooperativeness and it was found that higher prosociality was associated with higher levels of cooperation. However, whereas significant correlations were also found for four out of five risk-taking scales, the relationships were negative rather than positive: Lower risk-taking was associated with higher cooperation levels in the games. This unexpected result can be explained by the fact that the Japanese participants, who were generally more risk-averse than the European participants, were more cooperative in the games. However, a causal relationship with low risk-taking resulting in high cooperation can be ruled out, because the significant correlations disappeared for most game conditions when running separate correlation analyses for the Japanese and the European samples.

## References

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