

Putting negotiation in context: The US vs Japan

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INTRODUCTION

Question: *To what extent are cultural differences in bargaining behavior context dependent?*

- Current literature uses the ultimatum game to compare the countries
 - Roth et al. (1991), Oosterbeek et al. (2004), Lin et al. (2020)
 - UG: context-free game, unlike real-life negotiations

Contribution:

- Cross-cultural comparison of bargaining behavior by **taking context into account**
- Comparing different ways of **eliciting bargaining behavior**
- Testing the **power of ultimatum game** in explaining the individual and cultural differences in bargaining behavior

Hypothesis: Cultural differences in bargaining behavior are context-dependent.

- The cultural differences in negotiation behavior **vary between scenarios**.
 - Japanese might negotiate more than Americans in some contexts.

EXPERIMENT

US

- 203** participants from **Prolific**
- 50.74%** male, **40** mean age
- 44.83%** single
- 34.48%** without an ug degree
- 53.69%** employed
- 40.61%** lower-middle class

Japan

- 213** participants from **Lancers**
- 50.23%** male, **43** mean age
- 48.83%** single
- 36.15%** without an ug degree
- 48.82%** employed
- 41.85%** lower-middle class

Study:

- Mean time: **13 min** (US) & **17 min** (Japan)
- Fixed payment: **£1.5** (US) & **¥250** (Japan)



Stage 1: General Negotiation Questions

- Tendency to negotiate:**
 - “Whenever there is a chance, I try to negotiate to obtain a better deal.”
- Aggressiveness in negotiations:**
 - “When I am in a negotiation situation, I tend to make bold offers to try to move things in my favor.”

Stage 2: Game Play

- The standard **ultimatum game** with the pie of \$10 to be shared
 - Making **two decisions**: one as the proposer & one as the responder

Stage 3: Negotiation Scenarios

- 13 different real-life negotiation scenarios with a given price/value range
 - Write down a proposal** for the other party (in 7 scenarios)
 - “Accept an offer”** (at the average of the range) or **“Try to negotiate”**
 - “How frequent** such a negotiation situation is in your environment?”

Scenario	Scenario Summaries
job (low)	apply for a job, \$40,000 - \$70,000 per year
job (high)	apply for a job, \$150,000 - \$250,000 per year
house	buy a house, \$300,000 - \$450,000
online	buy an item from an online second hand market, \$60 - \$120
flea	buy a jacket from a flea market, \$30 - \$60
lessons	private lessons (to get), \$40 - \$80 per hour
car (used)	buy a used car, \$27,000 - \$41,000
car (new)	buy a brand-new car, \$30,000 - \$46,000
bulk	buy a large quantity of a particular product, \$800 - \$1100
fridge	buy a fridge from a big-box store, \$500 - \$1,000
vegetable	buy vegetables from a local vegetable shop in your neighborhood, \$10 - \$20 in total
fine	speeding fine, \$100 - \$500
medical	undergo a particular medical procedure, \$10,000 - \$30,000

RESULTS

General Questions:

- No difference between countries.

The Ultimatum Game:

- The **minimum offer** to accept is **lower in Japan** than in the US.
 - In line with the literature.

Mean decisions in general questions and game play (0-10)

Variable	US	JPN	P-Value
tendency	6.030	6.080	0.9162
aggressiveness	4.764	4.615	0.4379
proposer	4.941	4.850	0.1338
responder	4.207	3.488	0.0001

Notes: P-values are from the two-sided Mann-Whitney U tests.

Responses to the Negotiation Questions:

- Significant differences in **willingness to negotiate** in 6 scenarios.
 - Japanese negotiated more than Americans in 3 scenarios.
 - All scenarios (except those 3) were more frequent in the US.
 - Frequency explains the negotiation decisions (also in FE regressions).

Mean of the negotiation decisions in the scenarios (0-1)

Scenario	US	JPN	P-Value
job (low)	0.660	0.343	< 0.0001
job (high)	0.350	0.178	0.0009
house	0.773	0.836	1.0000
online	0.764	0.746	1.0000
flea	0.675	0.732	1.0000
lessons	0.276	0.347	1.0000
car (used)	0.887	0.883	1.0000
car (new)	0.749	0.751	1.0000
bulk	0.424	0.676	< 0.0001
fridge	0.246	0.667	< 0.0001
vegetable	0.099	0.249	0.0007
fine	0.202	0.169	1.0000
medical	0.414	0.207	< 0.0001

Notes: P-values are from the Holm-adjusted two-sided Fisher exact tests.

Mean of the frequencies of the scenarios (0-10)

Scenario	US	JPN	P-Value
job (low)	7.266	3.939	< 0.0001
job (high)	7.133	3.638	< 0.0001
house	8.128	6.225	< 0.0001
online	7.384	6.211	0.0004
flea	7.562	6.563	0.0013
lessons	4.512	3.352	< 0.0001
car (used)	8.483	6.549	< 0.0001
car (new)	7.522	6.023	< 0.0001
bulk	4.182	5.695	< 0.0001
fridge	3.158	6.136	< 0.0001
vegetable	3.700	3.770	1.0000
fine	2.246	1.469	0.0215
medical	3.039	1.906	0.0027

Notes: P-values are from the Holm-adjusted two-sided Mann-Whitney U tests.

- Significant differences in **boldness of proposals** in 2 scenarios.
 - Japanese made bolder offers in the context of “buying a house”.

Mean of the proposal boldness index (0-1)

Scenario	US	JPN	P-Value
job (low)	0.718	0.616	< 0.0001
job (high)	0.640	0.598	0.2751
house	0.828	0.886	0.0366
online	0.828	0.889	0.7455
flea	0.893	0.878	1.0000
lessons	0.771	0.813	0.3300
car (used)	0.900	0.875	1.0000

Notes: P-values are from the Holm-adjusted two-sided Mann-Whitney U tests.

- Game behaviors **do not correlate** with the responses to the scenarios.

- The **general tendency to negotiate** highly correlated with the willingness to negotiate in scenarios.
- The **level of aggressiveness** in negotiations significantly correlated with the boldness of proposals.

Pearson's correlations between mean decisions & measures of bargaining behavior

	Mean boldness		Mean negotiation decision	
	US	JPN	US	JPN
proposer	-0.076	-0.034		
aggressiveness	0.171**	0.256***		
responder			0.103	-0.077
tendency			0.338***	0.521***

Notes: * p < 0.10, ** p < 0.05, *** p < 0.01

CONCLUSION

- Americans **do not** necessarily negotiate more than Japanese.
- The ultimatum game **does not do well** at capturing negotiation behavior across contexts and when comparing countries (US vs Japan).
- Simple questionnaire-type items** do much better.
- Our findings highlight the necessity of **considering context** to fully understand cross-cultural differences in bargaining behavior.
- Future studies needed to explore other negotiations contexts with real incentives.

References:

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