

# **CONFIDENTIAL - FOR PEER-REVIEW ONLY**

## **Beliefs about Being Alone and Loneliness in Japan versus U.S. (#141255)**

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### **1) Have any data been collected for this study already?**

No, no data have been collected for this study yet.

### **2) What's the main question being asked or hypothesis being tested in this study?**

H1: Beliefs about being alone vary significantly by culture, such that Japanese have more positive beliefs about being alone than Americans.

H2: Loneliness varies significantly by culture, such that Americans are lonelier than Japanese. We will control for relational mobility and social contact, which are theoretically linked to loneliness, if appropriate (i.e., if social contact and relational mobility are significantly correlated with the outcome and/or predictor).

H3: Across cultures, beliefs about being alone predict loneliness, such that people with more positive beliefs about being alone are less lonely than those with more negative beliefs about being alone. If appropriate (i.e., if social contact and relational mobility are significantly correlated with the outcome and/or predictor), we will control for relational mobility and social contact (H3a). We will also test if social contact moderates the hypothesized effect of beliefs on loneliness, such that people with low social contact who have positive beliefs about being alone are less lonely than those with low social contact who have negative beliefs about being alone (H3b). Notably, finding either (H3a) or (H3b) would be consistent with our theoretical model.

### **3) Describe the key dependent variable(s) specifying how they will be measured.**

Beliefs about Being Alone: Assessed via an original scale developed by our team in a previous study; 6-items on a bipolar scale rated from 1 [highest rating on first construct] to 7 [highest rating on second construct]; theoretical range 6 to 42)

Loneliness: Measured via the UCLA Loneliness Scale-8-item version. Each item is rated from 1=never to 4=often; theoretical range 8-32.

Social Contact: Assessed via three items used in the MIDUS/MIDJA studies. The items ask about frequency of social contact with friends, family, and partner/spouse in the past month. Each item is rated from 1=never to 3=7+ times per month). To get more precise estimates of social contact, we will assess social contact once more using these same items with additional response options (1=never, 2=once or twice per month, 3=about once per week, 4=several times per week, 5=nearly every day).

Note: All scales will be translated into Japanese and back-translated into English to ensure translation accuracy.

### **4) How many and which conditions will participants be assigned to?**

There are no conditions in this study.

### **5) Specify exactly which analyses you will conduct to examine the main question/hypothesis.**

For H1 - H2, we will conduct inferential tests to examine whether the DV of interest differs significantly by culture (Japanese versus American). For H2, we may control for relational mobility and social contact as described above in (2).

For H3, we will conduct a regression analysis to examine the relationship between beliefs about being alone and loneliness, and additionally test if culture and/or social contact moderate this relationship. We may control for relational mobility and social contact as described above in (2).

### **6) Describe exactly how outliers will be defined and handled, and your precise rule(s) for excluding observations.**

Means and standard deviations will be computed for variables of interest. Observations that lie above or below 3 SDs below the sample mean will be excluded.

Participants will be excluded from analyses if they (1) do not follow study instructions; (2) complete the study too fast [i.e., finish the survey in under four minutes, or over 3 SDs above the sample mean on completion time]; (3) do not provide human responses for open-ended questions; (4) do not complete the survey; and/or (5) do not agree to provide high-quality responses in an initial commitment check.

### **7) How many observations will be collected or what will determine sample size? No need to justify decision, but be precise about exactly how the number will be determined.**

An a priori power analysis determined that a sample of 542 participants per group (1084 total) is required to achieve 95% power to detect the smallest effect observed in our pilot study ( $d = 0.20$ ). Because 10-15% of online participants are typically excluded for reasons mentioned in #6, we will oversample

and recruit 600 participants per group to ensure a final sample size of 1084 included in analyses.

**8) Anything else you would like to pre-register? (e.g., secondary analyses, variables collected for exploratory purposes, unusual analyses planned?)**

We will run bivariate correlations to assess relationships between all variables of interest. We plan to conduct exploratory analyses to examine whether self-reported exposure to news media about being alone or social isolation is linked to loneliness and beliefs about being alone. If sample does not moderate the hypothesized effects, we will combine this sample with another sample collected in a pilot study and run the aforementioned analyses on the collapsed sample. If sample is related to any of the key variables, we will add sample as a covariate in our analyses.