Method Draft

Iris Zhong[1] & Yena Li[1]

[1] Smith College

Method Draft

Measures

Quality Marriage Index (QMI)

The QMI assesses the behavior and attitude of couples in a romantic relationship and provides insight to couples' satisfaction towards their relationships (Norton, 1983). Four of the questions on the scale were used in this study. Example items include, "Today, we have a good relationship," and "Today, my relationship with my partner makes me happy," measured on a 1 (not true about me), to 4 (mostly true about me) scale. The scale was reliable, with the overall cronbach's alpha = 0.96. Cronbach's alpha on each day ranges from xx to xx. The intraclass correlation (ICC) for the QMI was large, ICC = 0.66. ICC on each day spans from xx to xx.

Gender Role Belief Scale (GRBS)

The GRBS measures one's gender ideology, which is his or her beliefs for what men and women's role in the society should be, and his or her attitude towards men and women (Kerr & Holden, 1996). All twenty questions on the scale were included in this study. Example items include, "It is disrespectful for a man to swear in the presence of a lady," and "Women should have as much sexual freedom as man," measured on a 1 (strongly disagree), to 5 (strongly agree) scale. The scale was reliable, with the cronbach's alpha = 0.89. The intraclass correlation (ICC) for this scale was large, ICC = 0.63.

Participants

In sum, 364 people from 182 pairs of couples completed the pre-measure survey. Then, 263 people from 155 dyads participated in the daily diary survey, producing 3482 responses in total. Responses with entry error (wrong day of the week, extra or redundant

data, survey finished in different weeks within the dyads) were removed, leaving 2745 valid responses from 211 individuals in 127 dyads. The actor-partner independence model is unable to operate in situations where on a particular day, only one person from the couple fills out the diary. Therefore, xx people of xx dyads were further excluded. The final dataset consisted of xx people from xx dyads, with xx same-sex couples and xx heterosexual couples.

Table 1 shows the sample demographics in terms of participants' gender, telework status, age, relationship length, race, number of children (less than 13 years old) at home, and income level. There were 185 female and 179 male in this sample. Participants' age varied from 26 to 74 years, with an average of 45.80 (*SD = 8.35*). Their relationship length was approximately 18.45 years on average (*SD = 10.19*). Due to the pandemic, more than 60% of the respondents teleworked. The sample consisted of 269 White or European Americans, 24 Black or African Americans, 37 Asian or Asian Americans, 21 Latinx or Hispanic, 4 Middle Eastern, 4 identified as both White or European American and Latinx or Hispanic, 1 identified as other race or ethnicity, and 4 preferred not to answer. On average, the participants had 0.8 children raised in the household (*SD = 1.35*). The average income level of the sample was 76618.8 dollars (*SD = 105,704.1*).

This assignment has used R (Version 4.0.3; R Core Team, 2020) and the R-packages *dplyr* (Version 1.0.2; Wickham et al., 2020), *forcats* (Version 0.5.0; Wickham, 2020a), *ggformula* (Version 0.10.1; Kaplan & Pruim, 2021), *ggplot2* (Version 3.3.2; Wickham, 2016), *ggridges* (Version 0.5.2; Wilke, 2020), *ggstance* (Version 0.3.5; Henry et al., 2020), *here* (Version 1.0.1; Müller, 2020), *lattice* (Version 0.20.41; Sarkar, 2008), *Matrix* (Version 1.2.18; Bates & Maechler, 2019), *mosaic* (Version 1.8.3; Pruim, Kaplan, & Horton, 2017, 2021), *mosaicData* (Version 0.20.2; Pruim et al., 2021), *papaja* (Version 0.1.0.9997; Aust & Barth, 2020), *psychTools* (Version 2.1.3; Revelle, 2020), *purrr* (Version 0.3.4; Henry & Wickham,

2020), *readr* (Version 1.4.0; Wickham & Hester, 2020), *RJ-2017-037* (Barrett & Brignone, 2017, 2017, 2017, 2017, 2017), *stargazer* (Version 5.2.2; Hlavac, 2018), *stringr* (Version 1.4.0; Wickham, 2019), *tibble* (Version 3.0.4; Müller & Wickham, 2020), *tidyr* (Version 1.1.2; Wickham, 2020b), and *tidyverse* (Version 1.3.0; Wickham, Averick, et al., 2019).

Updated table

References

Aust, F., & Barth, M. (2020). *papaja: Create APA manuscripts with R Markdown*. Retrieved from https://github.com/crsh/papaja

Barrett, T. S., & Brignone, E. (2017). Furniture for quantitative scientists. *The R Journal*, *9*(2), 142–148. https://doi.org/10.32614/RJ-2017-037

Bates, D., & Maechler, M. (2019). *Matrix: Sparse and dense matrix classes and methods*. Retrieved from https://CRAN.R-project.org/package=Matrix

Henry, L., & Wickham, H. (2020). *Purrr: Functional programming tools*. Retrieved from https://CRAN.R-project.org/package=purrr

Henry, L., Wickham, H., & Chang, W. (2020). *Ggstance: Horizontal 'ggplot2' components*. Retrieved from https://CRAN.R-project.org/package=ggstance

Hlavac, M. (2018). *Stargazer: Well-formatted regression and summary statistics tables*. Bratislava, Slovakia: Central European Labour Studies Institute (CELSI). Retrieved from https://CRAN.R-project.org/package=stargazer

Kaplan, D., & Pruim, R. (2021). *Ggformula: Formula interface to the grammar of graphics*. Retrieved from https://CRAN.R-project.org/package=ggformula

Kerr, P. S., & Holden, R. R. (1996). Development of the gender role beliefs scale (grbs). *Journal of Social Behavior and Personality*, *11*(5), 3.

Müller, K. (2020). *Here: A simpler way to find your files*. Retrieved from https://CRAN.R-project.org/package=here

Müller, K., & Wickham, H. (2020). *Tibble: Simple data frames*. Retrieved from https://CRAN.R-project.org/package=tibble

Norton, R. (1983). Measuring marital quality: A critical look at the dependent variable. *Journal of Marriage and the Family*, 141–151.

Pruim, R., Kaplan, D., & Horton, N. (2021). *MosaicData: Project mosaic data sets*. Retrieved from https://CRAN.R-project.org/package=mosaicData

Pruim, R., Kaplan, D. T., & Horton, N. J. (2017). The mosaic package: Helping students to 'think with data' using r. *The R Journal*, *9*(1), 77–102. Retrieved from https://journal.r-project.org/archive/2017/RJ-2017-024/index.html

R Core Team. (2020). *R: A language and environment for statistical computing*. Vienna, Austria: R Foundation for Statistical Computing. Retrieved from https://www.R-project.org/

Revelle, W. (2020). *PsychTools:Tools to accompany the 'psych; package for psychological research*. Evanston, Illinois: Northwestern University. Retrieved from https://CRAN.R-project.org/package=psychTools

Sarkar, D. (2008). *Lattice: Multivariate data visualization with r*. New York: Springer. Retrieved from http://lmdvr.r-forge.r-project.org

Wickham, H. (2016). *Ggplot2: Elegant graphics for data analysis*. Springer-Verlag New York. Retrieved from https://ggplot2.tidyverse.org

Wickham, H. (2019). *Stringr: Simple, consistent wrappers for common string operations*. Retrieved from https://CRAN.R-project.org/package=stringr

Wickham, H. (2020a). *Forcats: Tools for working with categorical variables (factors)*. Retrieved from https://CRAN.R-project.org/package=forcats

Wickham, H. (2020b). *Tidyr: Tidy messy data*. Retrieved from https://CRAN.R-project.org/package=tidyr

Wickham, H., Averick, M., Bryan, J., Chang, W., McGowan, L. D., François, R., ... Yutani, H. (2019). Welcome to the tidyverse. *Journal of Open Source Software*, *4*(43), 1686. https://doi.org/10.21105/joss.01686

Wickham, H., François, R., Henry, L., & Müller, K. (2020). *Dplyr: A grammar of*

data manipulation. Retrieved from https://CRAN.R-project.org/package=dplyr

Wickham, H., & Hester, J. (2020). *Readr: Read rectangular text data*. Retrieved from https://CRAN.R-project.org/package=readr

Wilke, C. O. (2020). *Ggridges: Ridgeline plots in 'ggplot2'*. Retrieved from https://CRAN.R-project.org/package=ggridges

Table 1

	Total n = 364
gender	
male	179 (49.2%)
female	185 (50.8%)
missing	0 (0%)
age	45.8 (8.4)
telework	
no	129 (35.4%)
yes	235 (64.6%)
missing	0 (0%)
relationship_length	18.4 (10.2)
race	
Asian or Asian American	37 (10.2%)
Black or African American	24 (6.6%)
Latinx or Hispanic	21 (5.8%)
Middle Eastern	4 (1.1%)
Other	1 (0.3%)
Prefer not to answer	4 (1.1%)
White or European American	269 (73.9%)
White or European American,Latinx or Hispanic	4 (1.1%)
missing	0 (0%)
number_of_children	0.8 (1.3)
income	76,618.8 (105,704.1)

Table 2

	Total Mean/Count (SD/%) n = 162
Gender	
Men	81 (50%)
Women	81 (50%)
missing	0 (0%)
Age	
	45.6 (8.1)
Telework	
No	60 (37%)
Yes	102 (63%)
missing	0 (0%)
Relationship length	
	18.2 (9.9)
Number of children	
	0.8 (0.9)
Income	
	67,857.4 (70,655.2)
Gender role belief score	
	2.7 (0.7)

Table 3

	Gender	
	Men Mean/Count (SD/%) n = 81	Women Mean/Count (SD/%) n = 81
Age		
	46.6 (8.5)	44.5 (7.6)
Telework		
Yes	44 (54.3%)	58 (71.6%)
No	37 (45.7%)	23 (28.4%)
Relationship length		
	18.2 (9.9)	18.2 (9.9)
Number of children		
	0.8 (0.9)	0.8 (0.9)
Individual income		
	70,698.6 (41,079.3)	64,933.8 (91,925.6)
Gender ideology		
	2.9 (0.6)	2.6 (0.7)
Race		
Asian or Asian American	6 (7.4%)	8 (9.9%)
Black or African American	6 (7.4%)	6 (7.4%)
Latinx or Hispanic	5 (6.2%)	6 (7.4%)
White or European American	62 (76.5%)	61 (75.3%)
Prefer not to answer	2 (2.5%)	0 (0%)

Table 4

	Total	Gender	
		Men	Women
	Mean/Count (SD/%)	Mean/Count (SD/%)	
	n = 162	n = 81	n = 81
Age	45.57 (8.11)	46.62 (8.49)	44.52 (7.62)
Telework			
Yes	102 (63%)	44 (54.3%)	58 (71.6%)
No	60 (37%)	37 (45.7%)	23 (28.4%)
Relationship length	18.22 (9.93)	18.22 (9.93)	18.22 (9.93)
Number of children	0.75 (0.95)	0.75 (0.95)	0.75 (0.95)
Individual income	67,857.39 (70,655.21)	70,698.59 (41,079.3)	64,933.83 (91,925.61)
Gender ideology	2.73 (0.66)	2.86 (0.63)	2.59 (0.67)
Race and ethnicity			
Asian or Asian American	14 (8.6%)	6 (7.4%)	8 (9.9%)
Black or African American	12 (7.4%)	6 (7.4%)	6 (7.4%)
Latinx or Hispanic	11 (6.8%)	5 (6.2%)	6 (7.4%)
White or European American	123 (75.9%)	62 (76.5%)	61 (75.3%)
Prefer not to answer	2 (1.2%)	2 (2.5%)	0 (0%)