**Assignment 2**

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**Part 1**

**Questions**

***1***

Multiple squared correlation coefficient: R2 = 0.80

95% CI around R2: [.77, .82]

Together, trust and risk-taking propensity jointly predicted 80 percent of the variance in participants’ number of helpful behaviours engaged in, *F*(2, 497) = 961.90, *p* < .001, *R2* = .80, *95% CIs* *=* [.77, .82]. Examination of the 95 percent confidence intervals around the standardized effect size suggested that trust and risk-taking propensity may plausibly (though not certainly) account for anywhere from 77 to 82 percent of the population-level variance in the number of helpful behaviours engaged in (population-level effect sizes outside this range as possible, but are relatively less probable).

***2***

Of the predictors, trust propensity was found to plausibly and uniquely predict anywhere between 38 and 50 percent of the variance in participants’ number of helping behaviours committed, *t*(497) = 32.78, *p* < .001, *sr*2 = .44, *95% CIs* = [.38, .50], *β* = 0.67, *95% CIs* = [0.63, 0.71]. *β* = 0.67, the standardized partial slope for trust propensity, can be interpreted as such: for every one standard deviation increase in trust propensity, the number of helping behaviours engaged in increases by one standard deviation, holding the effects of risk-taking propensity constant.

***3***

There was also evidence for a statistically-significant interaction between trust and risk-taking propensity in predicting number of helpful behaviours engaged in. Specifically, the trust\*risk interaction term may have plausibly and uniquely predicted between zero and two percent of the variance in helping *t*(496) = 5.91, *p* < .001, *sr2* = .01, *95% CIs* *=* [.00, .02], *β* = 0.12, *95% CIs* *=* [0.08, 0.16]. Accordingly, the statistically significant interaction term suggests that moderation may be present.

***4***

To further explore this interaction, the relation between trust propensity and number of helping behaviours engaged in was examined at both low (i.e., one standard deviation below the mean) and high (i.e., one standard deviation above the mean) levels of risk-taking propensity. At “high” (i.e., plus one standard deviation) levels of risk-taking propensity, trust propensity was found to plausibly predict between 27 and 38 percent of the variance in the number of helping behaviours engaged in, *t*(496) = 29.134, *p* < .001, *sr2* = .33, *95% CIs* *=* [.27, .38], *β* = 0.77, *95% CIs* *=* [0.72, 0.82]. Inspection of the 95 percent confidence intervals around the standardized slope coefficient suggested that, when risk-taking propensity was high, every one standard deviation unit increase in trust propensity could plausibly predict between a 0.72 and a 0.82 standard deviation unit increase in the number of helping behaviours committed. Conversely, at “low” (i.e., minus one standard deviation) levels of risk-taking propensity, trust propensity was found to plausibly predict between 11 and 18 percent of the variance in the number of helping behaviours engaged in, *t*(496) = 19.40, *p* < .001, *sr2* = .15, *95% CIs* *=* [.11, .18], *β* = 0.55, *95% CIs* *=* [0.49, 0.60]. Inspection of the 95 percent confidence intervals around the standardized slope coefficient suggested that, when risk-taking propensity was low, every one standard deviation unit increase in trust propensity could plausibly predict between a 0.49 and a 0.60 standard deviation unit increase in the number of helping behaviours committed. Thus, it appears that trust propensity is predictive of the number of helping behaviours engaged in at both low and high risk-propensity settings; risk-propensity overall strengthens the trust propensity and helping relationship at both low and high levels of risk propensity. But, trust propensity may be more strongly predictive of the number of helping behaviours committed when risk-propensity is high.

***5***

Trust propensity was found to predict six percent of the variance in general fondness of people, *t*(498) = 5.48, *p* < .001, *R2* = .06, *95% CIs* = [.03, .11], *β* = 0.25, *95% CIs* = [.17 .34]. Examination of the 95 percent confidence intervals around the standardized effect size suggested that trust propensity may plausibly (though not certainly) account for anywhere from three to 11 percent of the population-level variance in general fondness of people (population-level effect sizes outside this range as possible, but are relatively less probable), supporting the *a*-path of the proposed mediation model.

Moreover, general fondness of people uniquely predicted nine percent of the variance in willingness to help beyond the variance already accounted for by trust propensity, *t*(497) = 6.91, *p* < .001, *sr2* = .09, *95% CIs* = [.04, .13], *β* = 0.30, *95% CIs* = [.22, .39]. Examination of the 95 percent confidence intervals around the standardized partial effect size suggested that, controlling for the effects of trust, general fondness of people may plausibly (though not certainly) account for anywhere from four to 13 percent of the population-level variance in willingness to help, supporting the *b*-path of the proposed mediation model.

Because both the *a-* and *b*-paths of the model were supported, mediation was tested using bootstrapping with bias-corrected confidence intervals. The result supported the indirect path between trust propensity and general helpfulness via general fondness of people, *β* = 0.08, 95% *CIs* = [0.04, 0.12]. Conversely, the direct path between trust propensity and general helpfulness was not significant after accounting for general fondness of people, *β* = 0.05, 95% *CIs* = [-0.04, 0.12]. Indeed, because the direct path between trust propensity and general helpfulness could no longer be concluded to be a non-zero relationship, these results suggested the idea that general fondness of people may fully mediate the relation between trust propensity and general helpfulness, see Figure 2.

**Figure 2**

*Screenshot of R Mediation Analyses Ouptut*

A picture containing graphical user interface

Description automatically generated