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Assumed Similarity and Valued Personality Characteristics

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ABSTRACT. The tendency to evaluate others as being similar to oneself in terms of personality characteristics is frequently referred to as assumed similarity. Although there has been substantial empirical inquiry into assumed similarity effects, much remains unknown, particularly with respect to the causes of the phenomenon. Researchers have examined various potential moderators of assumed similarity, primarily featuring but not limited to trait domain and familiarity with the other person. In terms of trait domain, Honesty-Humility, Openness to Experience, and Agreeableness have shown stronger assumed similarity, leading some researchers to suggest that the connection between a trait domain and one's personal values may be associated with these effects. In terms of familiarity with the target, conclusions have been mixed to date. To replicate, extend, and disambiguate these findings, we asked 205 undergraduates to assess a) themselves, b) a familiar other, and c) an unfamiliar other. We also asked them to rank a list of traits in terms of personal relevance. We found similar patterns of assumed similarity correlations to those most recently reported in the literature and a general trend of stronger assumed similarity correlations for familiar (versus unfamiliar) others. Regardless of familiarity, personal relevance of a trait domain did not moderate assumed similarity. Implications for competing theoretical accounts of assumed similarity are discussed.

BECCA BABINEAU

My sophomore year, I had Dr. Beer for a Personality Psychology course and I felt that he made the material so interesting and fun to learn about. So, when my advisor suggested I do an independent study with a professor, I knew I wanted to do it with Dr. Beer. When he told me about the idea of assumed similarity, I felt that it would be a great topic to research. My favorite part of this research experience would be learning how to use the statistical software known as R to assist with the data analysis for this project. I had never used R prior to this research project and although it was complex and a bit intimidating, Dr. Beer was more than willing to teach me. By learning R, I realized how useful it is for not only analyzing data, but it is also helpful for creating graphs to be used as figures. This will be a valuable skill in the future, as I plan to study business analytics in graduate school and hope to one day pursue a career in data science. For other students who are considering conducting research, I would strongly recommend this type of research experience. The skills that I learned from this research experience are skills that I would not have learned otherwise, and this experience gave me a better idea of the career path I would like to pursue. Some advice I would give to students who are interested in conducting research is that if you are not sure about something, it is okay to ask for help. I am very grateful that Dr. Beer was willing to work on this research project with me, and the skills I learned while doing this project are invaluable. In my free time, I enjoy reading and spending time with my family, my friends, and my five dogs.

ANDREW BEER is originally from Los Angeles, but largely grew up near Dallas, where he received his bachelor's degree in Psychology from Southern Methodist University. He did his graduate work with David Watson at the University of Iowa and received a PhD in Personality and Social Psychology prior to accepting his position at USC

Upstate in 2007. Most of Dr. Beer's research centers on how we judge others' personalities and how we come to know others in our various social environments. His work has appeared in Journal of Personality, Journal of Research in Personality, Journal of Personality and Social Psychology, Journal of Personality Assessment, Personality Science, Assessment, and Science, and he regularly presents his work at the meetings of the Society for Personality and Social Psychology and the Association for Research in Personality.

Becca's paper here is a brief consideration of how social projection effects occur. Becca was a quick study in the history of the phenomenon and was able to communicate effectively and explore some interesting ideas about what might lead us to assume others share our characteristics. Further, Becca was able to use this project as a means to begin learning how to program in R, a computing language that may be useful to her in her pursuit of a career in data science.

Introduction

The projection of one's attributes onto others in social judgment has interested researchers in psychology since its earliest days. In fact, the general concept predates formal study of psychology [1]. Initially posed as a defense mechanism that allowed one to implicitly recognize acts or patterns of behavior without explicitly acknowledging that they belonged to the actor, understanding of the concept has shifted over time. When applied to personality, the phenomenon is often referred to as assumed similarity [2], and is frequently operationalized as the correspondence between (a) one's self-reported standing on a given personality dimension and (b) his or her evaluation of another individual on the same personality dimension. For example, if Ted is an exceptionally outgoing individual, does he tend to evaluate others as more outgoing than does Mary, who is more introverted? A review of these effects [3] supports the notion that self-judgments correspond with ratings of others on major trait dimensions to some degree and are strongest for the trait dimensions of Agreeableness, Openness to Experience, and especially Honesty-Humility (as measured in the HEXACO model [4]).

While assumed similarity effects are well-documented, relatively little is understood about their origins. This fact is evidenced in part by the various names applied to the same statistical phenomenon. For example, some [5] have referred to this self-other correspondence as the *self-based heuristic*, which implies that assuming similarity is a judgmental tactic employed when reliable trait information is relatively unavailable to a target. Indeed, some research supports this theoretical account, in that accuracy and assumed similarity have shown inverse relationships with one another [6]. However, other data suggest that there is no such inverse relation among the two [7]. Further, if assumed similarity is driven by a lack of information, one would expect greater assumed similarity effects as level of acquaintance decreased. Thus, judgments of relative strangers should correspond more strongly with self-judgments than would judgments of better-known individuals. Though some data support this account [6], more recent data do not [3].

Recently, some have suggested that assumed similarity functions as a way to affirm one's value system [3]. This theoretical account could explain why Openness to Experience and Honesty-Humility generally show the strongest effects, as these traits are more highly correlated with personal values than are other major trait dimensions [8]. A more direct test of the personal relevance hypothesis is to specifically examine the relation between (a) an individual's idiosyncratic definition of relevance or importance of a given trait and (b) that individual's tendency to assume others are similar on that trait. This hypothesis has only been tested once to date [3] and results were unsupportive of this account. However, there was some concern regarding the measure of personal relevance used in that study, as ratings of personal relevance were highly

correlated across traits, implying that some subjects simply find all traits relevant and others do not. This could render the null result difficult to interpret. Thus, the current study aims to test a personal relevance account of assumed similarity utilizing a slightly different operational definition of the key variable. In the previous study, participants were asked to rate items on level of importance and these ratings were then aggregated into scale scores of personal importance. In the current study, we ask participants to rank-order the larger trait dimensions in terms of personal relevance. This method can potentially enhance variability in personal relevance estimates while maintaining the core conceptual definition and avoiding fatigue effects and confusion resulting from multiple assessments with the same instrument under differing instructional sets. Additionally, in an attempt to replicate findings regarding the positive relation between level of acquaintance and assumed similarity, we asked participants to evaluate two targets: one whom they know very well and one whom they do not. In sum, the three primary research questions we addressed were as follows:

Research Question 1 (replication): Which traits show the strongest assumed similarity effects?
Research Question 2 (replication): Does familiarity with target relate to assumed similarity?
Research Question 3 (replication and extension): Does the relative personal importance of a trait relate to assumed similarity?

Methods

Participants

Participants were 205 undergraduates (162 female, mean age = 18.73 years) who were recruited via an online study enrollment system available to students registered for psychology courses at a mid-sized university in the southeastern United States. The study was advertised as focusing on social judgment, and participants received partial fulfillment of course requirements for their participation.

Materials

Self- and other-ratings of personality were obtained using the Self-Report Form and the Observer-Report Form of the 60-item HEXACO Personality Inventory-Revised [4]. The HEXACO-60 contains 10 items to measure each of the six HEXACO dimensions (Honesty-Humility, Emotional Stability, Extraversion, Agreeableness, Conscientiousness, and Openness to Experience). Participants responded using a five-point Likert type scale ranging from 1 = “Strongly Disagree” to 5 = “Strongly Agree”.

To assess personal relevance, participants were provided with brief descriptions of the six HEXACO domains and then asked to rank-order them in terms of personal importance, assigning a value of 6 to the trait dimension that is most important to them, 5 to the next-most important dimension, and so forth. Personal Relevance was defined for the participants as “a characteristic that is very important to you; something that you care about in yourself and others.”

Procedure

Upon consenting to participate, participants were first asked to complete the self-report version of the HEXACO-60. After this, they were asked to complete two more rating tasks, in counterbalanced order. In one task, participants were asked to think of someone they know well (and who is of the same gender as they are) and to write down their first name (this is the familiar

target). They were then asked to rate this person using the HEXACO-60. In the other task, two randomly selected photographs (one male, one female) were presented on a screen. Participants were asked to rate the personality (again using the HEXACO-60) of the pictured individual who shared their gender identification (this is the unfamiliar target). Finally, participants were asked to evaluate the importance of each HEXACO domain using the ranking system described previously and to provide some demographic information. The sessions lasted approximately 30 minutes.

Results and Discussion

Before turning to our primary research questions, Table 1 contains the descriptive statistics for the HEXACO scale scores (averaged across constituent items) for self and both types of target-ratings. As is fairly typical, mean ratings for the HEXACO scales cluster near the center point of the scale across traits, and internal consistencies (reliabilities as indexed by Cronbach's coefficient alpha) were generally acceptable, allowing us to turn to our primary research questions.

First, did the general pattern of assumed similarity correlations conform to those observed previously (RQ1)? We calculated assumed similarity correlations for each trait and group, and these results (Table 2) are indeed largely similar to those reported by Thielmann et al. (2020), in that Honesty-Humility showed the strongest assumed similarity effects, and both Agreeableness and Openness showed significant assumed similarity.

Our second question, however—concerning whether a subject's familiarity with the target was related to assumed similarity (RQ2)--produced a slightly different set of results. While Honesty-Humility for the familiar target had the highest correlation (r = .40) and was also relatively high for the unfamiliar target (r =.36), Openness to Experience had a high correlation for the familiar target (r =.32) but a rather low correlation for the unfamiliar target (r = .07). The case was similar for Emotionality ($r_{familiar}$ = .35, $r_{unfamiliar}$ = -.01), and Extraversion even showed relations in opposite directions across levels of target familiarity ($r_{familiar}$ = .24, $r_{unfamiliar}$ = -.16). Conscientiousness showed limited assumed similarity regardless of familiarity with the target.

To formally test whether familiarity moderated assumed similarity effects, we used a multilevel regression analysis [9] in which we predicted other-reports of targets' personality from raters' self-reports, level of familiarity (familiar vs. unfamiliar) with target, and the interaction between the self-reports and familiarity. There was indeed a significant interaction between familiarity of target and self-reported personality in predicting observer reports, B = -0.247, p < .001, in addition to significant main effects of raters' self-reports, B = 0.09, p = .003, and familiarity with target, B = -0.97, p < .001, suggesting that in general, (a) self-reports predict other-reports, (b) familiar targets are rated more highly (favorably) than unfamiliar targets, and most importantly (c) that assumed similarity correlations are stronger for familiar than unfamiliar targets.

A final aim of the present study was to determine whether a person's own opinion on the importance of the trait moderated the assumed similarity (RQ3). Figure 2 illustrates the distribution of personal relevance scores by trait. As seen in the figure, Honesty-Humility was most commonly ranked as the most important of the six traits. Interestingly (and similar to results reported in Thielmann et al., 2020), many participants rated Openness as being the least important of the traits.

To test whether ranked personal relevance of a trait moderates the level of assumed similarity – in the sense that higher self-relevance may be associated with a stronger link between self- and observer ratings on the trait – we used another multilevel regression analysis [9] in which we predicted other-reports of targets' personality from raters' self-reports, the personal relevance ascribed to a respective trait, and the interaction between the self-reports and self-relevance. For

this analysis, we collapsed across trait ratings because assumed similarity should increase with increased personal relevance regardless of trait domain. We tested this hypothesis separately for familiar and unfamiliar targets.

We did not find support for this hypothesis. In familiar targets, there was no significant interaction between self-relevance and self-reports in predicting observer reports, $B = -0.018$, $p = .353$, but only a significant main effect of raters' self-reports, $B = 0.294$, $p < .001$. In addition, no main effect emerged for personal relevance, $B = -0.062$, $p = .351$. In unfamiliar targets, the results were quite similar, with no significant interaction between self-relevance and self-reports in predicting observer reports, $B = -0.012$, $p = .416$, a significant main effect of raters' self-reports, $B = 0.116$, $p = .045$, and no main effect emerged for personal relevance, $B = 0.029$, $p = .568$. Thus, feeling as though a trait was more important was not associated with greater assumed similarity for that trait. Figure 3 summarizes these effects across traits.

Conclusion

The relation between one's judgment of themselves and their judgment of another person is of long-standing interest in personality psychology, and several theories have been proposed to explain this link (or lack thereof in some instances). In this study, we sought to replicate and extend recent findings and evaluate support for various accounts of assumed similarity. We found that Honesty-Humility showed strong assumed similarity effects across judgment types, in keeping with the recent value-driven account of assumed similarity effects [8], though we did not find consistently strong effects across target types (familiar versus unfamiliar) for all traits. We did find a general trend towards greater assumed similarity in familiar (versus unfamiliar) others across traits. This does not support a heuristic (e.g., [5]) account of assumed similarity, which would suggest greater assumed similarity effects for unfamiliar targets given the relative lack of observation and knowledge. Finally, we tested a personal relevance account of assumed similarity in a novel manner but found similar null results to the previous examination of this potential moderator. Thus, the results of this study provide inconsistent support for the values-driven account of assumed similarity effects and little to no support for competing theories.

Our study was not without flaws, of course. The sample was comprised of mostly younger adults, mostly women, and entirely college students from a Western, industrialized culture [10]. As such, these findings should only be generalized to a similar population [11]. From a methodological standpoint, we did not obtain self-ratings of personality from the targets chosen by our participants. This leaves open the possibility that differences in assumed similarity across familiarity might reflect differences in actual similarity (i.e., participants are more similar in personality to their chosen targets, and thus nothing is being "assumed"). That said, we are less concerned about this limitation for two reasons. First, while people do tend to be similar to close others in terms of demographic variables (e.g., age, level of education) people tend not to be particularly similar to close others in terms of major personality traits (e.g., [12]). Furthermore, Thielmann's group did account for these actual similarity effects in several of their studies and the results were not altered by the inclusion of this control variable.

In sum, Honesty-Humility seems to be a trait about which we assume similarity to others—particularly familiar others. Further, this does not appear to be driven by personal relevance or importance of the trait, as the personal importance attached to a trait did not moderate assumed similarity. This lends greater credence to the idea that there is something unique about the trait domain of Honesty-Humility that generates a tendency to ascribe one's own characteristics to others when assessing the trait. A current theoretical account [8] leans on the connection between this trait domain (and Openness to Experience) and values; however, while our study showed similar patterns in this regard, we also observed the same basic pattern for Emotionality,

which does not typically show the same relation to personal values as those traits. Future work may focus on narrower facets of these traits in an attempt to determine which specific qualities of the trait domains consistently predict greater assumed similarity. For example, can personal values and morality be disentangled to any degree, such that narrower trait domains with heavy moral focus (e.g., the Fairness and Greed Avoidance facets of Honesty-Humility) might be associated with greater assumed similarity than those that are less connected to a sense of right and wrong (e.g., the Modesty and Sincerity facets of Honesty-Humility). Overall, we take it as encouraging that most of Thielmann et al.'s (2020) effects replicated here. It seems clear now that we assume similarity with those that are closer to us and that we do so specifically for a subset of traits. It also seems that we are nearing some answers with respect to why we assume similarity.

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Table 1: Means, Standard Deviations, and Coefficient Alpha for Self, Familiar, and Unfamiliar Other-Ratings

Trait	Self			Familiar			Unfamiliar		
	M	SD	Alpha	M	SD	Alpha	M	SD	Alpha
Honesty/Humility	3.44	0.60	0.69	3.09	0.76	0.77	3.26	0.60	0.68
Emotionality	3.52	0.64	0.75	3.31	0.82	0.83	3.33	0.61	0.75
eXtraversion	3.30	0.69	0.81	3.55	0.63	0.73	3.28	0.69	0.81
Agreeableness	3.27	0.60	0.73	2.92	0.84	0.84	3.35	0.72	0.84
Conscientiousness	3.70	0.56	0.74	3.39	0.88	0.88	3.46	0.73	0.86
Openness	3.04	0.67	0.71	2.86	0.75	0.77	3.25	0.67	0.77

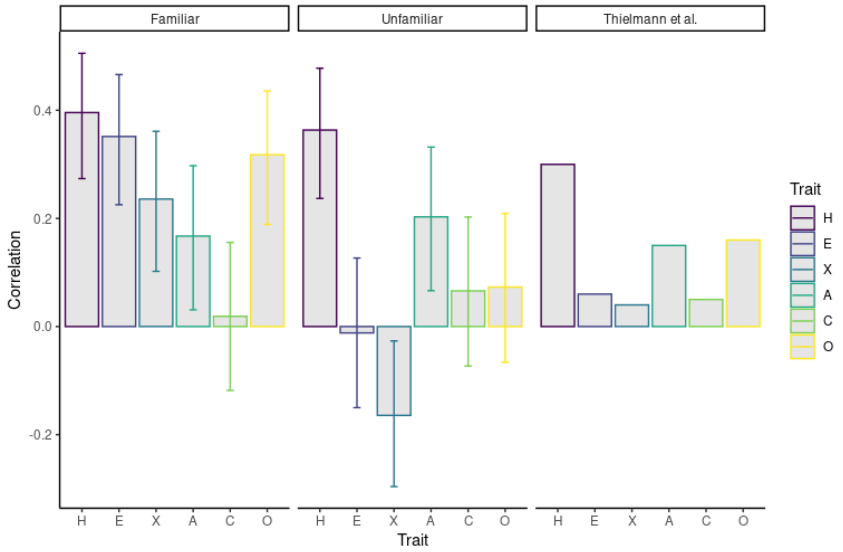
Note. N = 205 for self and familiar other ratings; N = 203 for ratings of unfamiliar others.

Table 2: Assumed Similarity Correlations across Traits and Target Familiarity

Trait	Familiarity with Target			
	Familiar (N=205)		Unfamiliar (N=203)	
Honesty/Humility	.40	[.27, .51]	.36	[.24, .48]
Emotionality	.35	[.23, .47]	-.01	[-.15, .13]
eXtraversion	.24	[.10, .36]	-.16	[-.30, -.03]
Agreeableness	.17	[.03, .30]	.20	[.07, .33]
Conscientiousness	.02	[-.12, .16]	.07	[-.07, .20]
Openness	.32	[.19, .44]	.07	[-.07, .21]

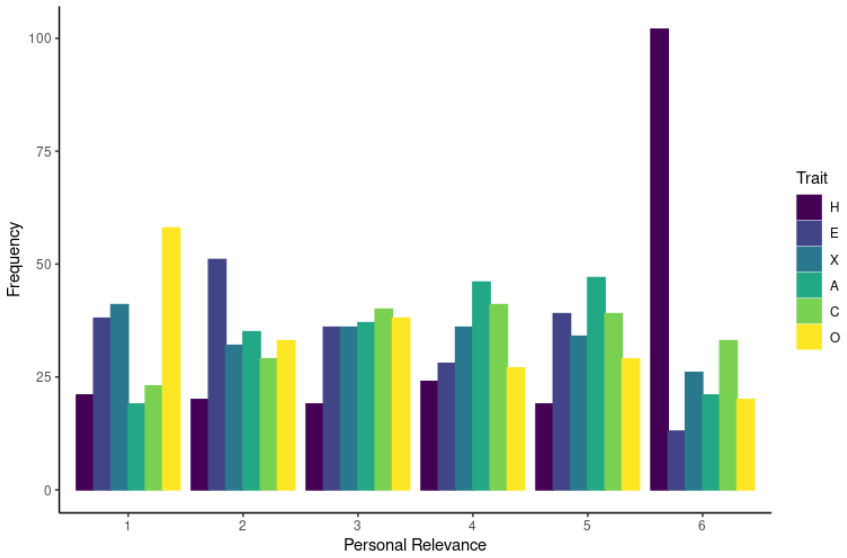
Note. 95% confidence intervals in brackets.

Figure 1: Assumed Similarity Correlations by Trait



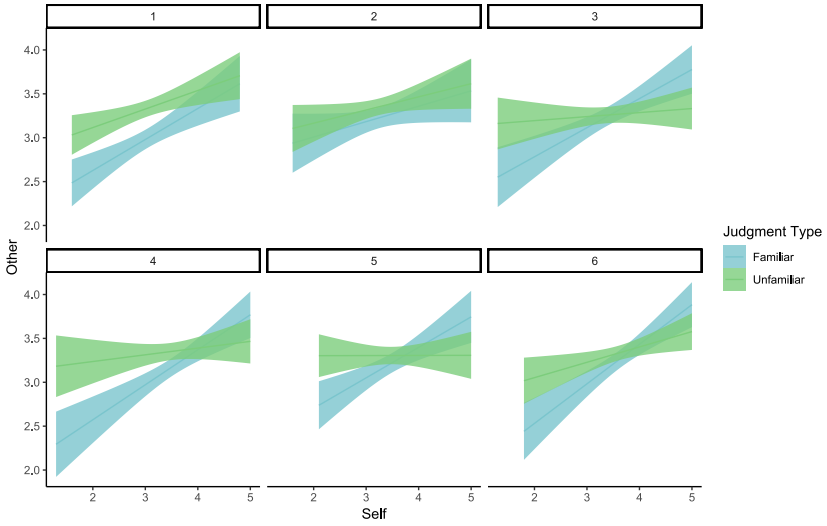
Familiar and Unfamiliar panels are from the current sample; the panel farthest right contains Thielmann et al.'s (2020) meta-analytic summary findings. Error bars are 95% confidence intervals.

Figure 2: Frequency Distribution of Personal Relevance Rankings



Higher numbers on the x-axis indicate greater personal relevance of the trait in question.

Figure 3: Assumed Similarity across Target Familiarity and Personal Relevance



Numbered panels indicate level of personal relevance ascribed to the trait. Shaded regions are 95% confidence intervals.