Supplementary Information (SI) for

Experience similarity, mindful awareness, and accurate interpersonal understanding

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Notes: Study protocols, survey measures, data, analysis scripts and output statistics reported in this manuscript are available in https://github.com/cnlab/accuracy/.

SI1. Speaker tasks

Storytelling. A storyteller was recruited (female, 24 years old) to create the seed speaker video to be later shown to the participants. To help select personal narratives to share and prepare for the videorecording, the speaker first completed an online survey (https://github.com/cnlab/accuracy/blob/main/surveys/speaker.pdf) that asked her to recall and write about two emotional autobiographical events ("memorable stories that you will always remember") that she would be willing to discuss in a laboratory setting. The speaker gave each story a title and description and rated the valence of each event on a -5 (negative) to 5 (positive) scale for the research team to ensure that both events were rated at or above/below 2 and -2 for valence. The speaker was told that these stories would be videotaped and that she would be later watching them again. The speaker did a practice run for each of the stories without recording. Next, she was asked to take a few seconds to evoke the sensory and emotional experiences she had during this event and start recording when she had reinstated the emotions she felt at the time of the event. The speaker then recounted her stories while being videotaped, three times for each story in a pseudo-randomized order (i.e., avoid recounting the same story twice in a row).

Out of the six recorded videos (2 stories, each recounted 3 times), the video used later in the story listening task (279 seconds) was chosen by the research team in consultation with the speaker according to the following procedure: First, researchers confirmed that both stories had sufficient emotional impact on the speaker based on the speaker's subjective rating (story1=-3, story2=3). Second, researchers reviewed the content of the two stories (story1 = romantic relationship and early career decisions, story2 = a long-term visit to a foreign country) and chose the story that was more relatable to general college populations (story1). The speaker independently agreed with this decision. Third, the researchers made sure that the chosen story included contents that were both positive (e.g., job offer, beginning of a romantic relationship, vacation, celebration) and negative (e.g., stress at work, an abrupt breakup). Fourth, of the three recordings of the same story, the researchers chose the one that felt the most natural. Without sharing this decision, the researchers also asked the speaker to choose the version that felt the most natural to her. The first recording of the story1 was chosen unanimously by the researchers and the speaker as the final seed video.

Speaker emotion rating. After completing the recording, the speaker watched her own videos that she just recorded and provided real-time continuous ratings of her emotional state while she spoke, using a slider ranging from -5 (negative) to 5 (positive). Importantly, the speaker was asked to rate how she felt while she was talking in the video, and not during the events themselves. The speaker's emotion ratings were used to create empathic accuracy scores along with the listeners' emotion ratings of the same video.

SI2. Results using non-Fisher r to z transformed empathic accuracy scores

To improve normality of the empathic accuracy scores, we transformed these correlational indices using Fisher's *r* to *z* transformation, which we report in the main text. Here, we also include results using non-Fisher *z* transformed (mean-centered) empathic accuracy scores. When we tested experience similarity, mindfulness, and their interaction terms as predictors of non-Fisher z transformed empathic accuracy scores, results showed generally weaker associations. Specifically, we did not find significant association between experience similarity and empathic accuracy (β=-0.181, B=-0.032, SE_B=0.020, *t*(67)=-1.595, *p*=.116, $CI_{95\%}$[-0.072, 0.008]), and the interaction effect between experience similarity and mindfulness predicting empathic accuracy was marginal (β=-0.308, B=-0.050, SE_B=0.026, *t*(67)=-1.914, *p*=.060, $CI_{95\%}$[-0.102, 0.002]). Higher mindfulness was significantly associated with greater empathic accuracy (β=0.414, B=0.048, SE_B=0.019, *t*(67)=2.562, *p*=013, $CI_{95\%}$[0.011, 0.085]).

SI3. Treating the experience similarity as a continuous variable.

The experience similarity question ("Did you previously have similar experiences the speaker described?") used a 3-point scale with answer options 1 (No), 2 (I had a kind of similar experience), and 3 (I had the same experience). In our current sample, 41 participants reported having no similar past experience (answer option 1), 30 reported having a similar past experience (answer option 2), and one reported having the same experience (answer option 3). In the main text, we collapsed across answer options 2 and 3 and treated the variable as categories to indicate having had similar vs. no similar experience. Here, we report additional analysis that treated the experience similarity variable as continuous without regrouping, which showed parallel results.

Greater experience similarity was associated with less factual accuracy (β=-0.272, B=-3.425, SE_B=1.521, *t*(66)=-2.252, *p*=.028, $CI_{95\%}$[-6.462, -0.389]). We did not find any significant associations between the MAAS scores and factual accuracy (β=0.050, B=0.434, SE_B=1.042, *t*(66)=0.416, *p*=.679, $CI_{95\%}$[-1.646, 2.514]) or a significant experience similarity x MAAS interaction (β=0.055, B=0.920, SE_B=1.999, *t*(66)=0.460, *p*=.647, $CI_{95\%}$[-3.071, 4.912]). Greater experience similarity was also associated with lower empathic accuracy (β=-0.271, B=-0.110, SE_B=0.045, *t*(67)=-2.462, *p*=.016, $CI_{95\%}$[-0.200, -0.021]), and individuals with greater MAAS scores showed greater empathic accuracy (β=0.228, B=0.064, SE_B=0.031, *t*(67)=2.076, *p*=.042, $CI_{95\%}$[0.002, 0.126]). We also found that the experience similarity interacted with mindfulness to predict empathic accuracy (β= -0.239, B=-0.130, SE_B=0.059, *t*(67)=-2.186, *p*=.032, $CI_{95\%}$[-0.248, -0.011]).

SI4. Positionality Statement. Mindful that our identities can influence our approach to science (Roberts et al., 2020) the authors wish to provide the reader with information about our backgrounds. With respect to gender, when the manuscript was drafted, four authors self-identified as women and one author as a man. With respect to race, three authors self-identified as White, one as East Asian and one as Other.

Supplementary Information References

Roberts, S. O., Bareket-Shavit, C., Dollins, F. A., Goldie, P. D., & Mortenson, E. (2020). Racial inequality in psychological research: Trends of the past and recommendations for the future. *Perspectives on Psychological Science: A Journal of the Association for Psychological Science*, *15*(6), 1295–1309. https://doi.org/10.1177/1745691620927709