Reducing Prejudice Through Mental Imagery: Notes on Replication, Interpretation, and Generalization

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Imagined intergroup contact (Crisp & Turner, 2009) is a new indirect contact strategy for promoting tolerance and more positive intergroup relations. McDonald, Donnellan, Lang, and Nikolajuk (2014) were unable to replicate the findings we obtained using a new variant of imagined contact (Birtel & Crisp, 2012). We commend the authors' careful and systematic study, but we argue that their conclusion goes substantially beyond what their design, data, or context can justify. It overgeneralizes their finding to a field of more than 70 studies with multiple design variants and conceptual replications. Furthermore, the original study was designed not to test the efficacy of the basic imagined-contact effect, but rather to test the relative efficacy of different task variants. Therefore, we believe that it is more accurate to say that their study represents an important data point in efforts to identify moderators of imagined contact than to say that it provides data on the efficacy of the effect per se. We elaborate on these points and use this example to illustrate how direct replications and meta-analysis can be fruitfully combined to refine understanding of how imagined contact may most effectively reduce prejudice.

Imagined Contact in Context

In their article, McDonald et al. (2014) questioned whether treating prejudice with imagery is "easier said than done." However, one must be careful to not overgeneralize this single replication failure to an entire field of study. In fact, more than 70 studies have tested the hypothesis that imagery reduces prejudice. A recent meta-analysis of these studies (Miles & Crisp, 2014), which included 5,282 participants, revealed a robust moderate effect of imagined contact on a range of dependent variables (attitudes, emotions, intentions, and behavior) and with a range

of different target groups (based on ethnicity, age, religion, etc.), overall d_+ = 0.35. The effect was significant for both published and unpublished studies, and it was equally strong for explicit and implicit measures. According to the fail-safe N computed from this meta-analysis, it would take 3,443 failed replications to cast doubt over the conclusion that imagery reduces prejudice. Thus, although the direct replication attempt reported by McDonald et al. is undoubtedly valuable, one should not overgeneralize and must interpret their results within the context of existing evidence.

Interpretation and Extrapolation

Putting aside the meta-analytic findings, the interpretation offered by McDonald et al. (2014) also goes beyond the parameters set by the goals of the original experiment. The original study was not designed to test the basic hypothesis that imagery reduces prejudice. Rather, the original study was intended to test the relative efficacy of different combinations of imagined contact (positive then positive vs. negative then positive). This means that we tested whether a specific variant of imagined contact (informed by clinical exposure therapy) was more effective than another, not whether imagery reduces prejudice per se. In fact, because McDonald et al. did not include a control condition, it is entirely possible that their manipulations did reduce prejudice. Notably, Miles and Crisp's (2014) meta-analysis found the pooled imagery effect to be unmoderated by valence. Consequently, both imagery variants tested by McDonald et al. could have reduced prejudice relative to an unknown, untested baseline. In sum, when interpreting replications, one must attend to the goals of the original study and be correspondingly circumscribed in one's conclusions.

Recommendations for Future Research

Direct study replications are undoubtedly important for psychological science. However, researchers must be mindful of the distinction between replication of experiments and replication of effects. Direct replications provide important information about the replicability of experimental findings carried out under specific study conditions, with specific target groups, in specific locations—but not about the conceptual replicability of an effect that appears when one uses different task variants,

different dependent measures, or different groups or issues. That said, we believe that direct replication attempts may be particularly valuable in providing highly comparable data points for meta-analyses aimed at establishing pooled evidence for moderators.

In their meta-analysis, Miles and Crisp (2014) examined a range of potential moderators of the imagined-contact effect. They found little evidence of moderation by study design, context, participant characteristics, or target group, but they noted that this may have been due to small sample sizes for some criteria. When large numbers of studies could be coded for moderators, effects emerged (e.g., elaboration enhanced the effect, and it was stronger for children than for adults). This analysis indicates that there are probably unconfirmed moderators of imagined contact that require further exploration. The replication attempt by McDonald et al. (2014), therefore, is important not because it casts doubt on the imagined-contact effect per se, but because it adds a valuable data point that future meta-analyses can use to quantitatively identify moderators (information that can then be used as a basis for direct replications of moderating conditions).

The use of imagery to effect behavior change has been the focus of hundreds of studies over the last 20 years, in varied fields ranging from psychotherapy to neuroscience, from sports psychology to advertising, and from health to academic performance (for reviews, see Crisp, Birtel, & Meleady, 2011; Holmes & Mathews, 2010; Taylor, Pham, Rivkin, & Armor, 1998). Having confirmed that these benefits extend to the prejudice domain, Miles and Crisp (2014) recommended that future research focus on what prevents imagery from reducing prejudice, and what facilitates its effectiveness, under varied study conditions. McDonald et al. (2014) have provided an important contribution to this developing focus on moderators. Future studies that adopt this approach will help imagined contact move closer to a refined, effective, and contextually sensitive intervention for promoting more positive intergroup relations.

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Declaration of Conflicting Interests

References

Birtel, M. D., Crisp, R. J. (2012). "Treating" prejudice: An exposure-therapy approach to reducing negative reactions toward stigmatized groups. Psychological Science, 23, 1379–1386. doi:10.1177/0956797612443838

Crisp, R. J., Birtel, M. D., Meleady, R. (2011). Mental simulations of social thought and action: Trivial tasks or tools for transforming social policy? Current Directions in Psychological Science, 20, 261–264. doi:10.1177/0963721411413762

Crisp, R. J., Turner, R. N. (2009). Can imagined interactions produce positive perceptions? Reducing prejudice through simulated social contact. American Psychologist, 64, 231–240. doi:10.1037/a0014718

Holmes, E. A., Mathews, A. (2010). Mental imagery in emotion and emotional disorders. Clinical Psychology Review, 30, 349–362. doi:10.1016/j.cpr.2010.01.001

McDonald, M. M., Donnellan, M. B., Lang, R., Nikolajuk, K. (2014). Treating prejudice with imagery: Easier said than done? Psychological Science, 25, 837–839.

Miles, E., Crisp, R. J. (2014). A meta-analytic test of the imagined contact hypothesis. Group Processes and Intergroup Relations, 17, 3–26. doi:10.1177/1368430213510573

Taylor, S. E., Pham, L. B., Rivkin, I. D., Armor, D. A. (1998). Harnessing the imagination: Mental simulation, self-regulation, and coping. American Psychologist, 5, 429–439. doi:10.1037/0003-066X.53.4.429