

Replication of Study 'The Illusion of Consensus: A Failure to Distinguish Between True and False Consensus (2019, Psychological Science)

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Introduction

Justification for Experiment Choice: I chose to replicate Yousif et al.'s study, "The Illusion of Consensus: A Failure to Distinguish Between True and False Consensus," as it aligns with my interest in behavior and people analysis, particularly in understanding how individuals form perceptions about group opinions. The study's focus on consensus illusions is highly relevant to my career interest in researching and improving wellbeing, especially in a workplace where misconceptions about team dynamics or group agreement could lead to inefficiencies or even conflict. Replicating this experiment will allow me to explore the cognitive biases that impact how individuals evaluate consensus, which has practical implications for fostering effective collaboration in organizational settings.

Stimuli and Procedures: The experiment by Yousif et al. involved exposing participants to a series of statements, some representing true consensus (widely agreed upon facts) and others representing false consensus (opinions that individuals incorrectly believe to be widely shared). Participants were asked to judge whether the presented statements reflected true or false consensus. To replicate this study, I will need to create a similar set of statements, carefully ensuring that some have strong empirical support, while others reflect common but incorrect beliefs. Participants will be drawn from a similar population, ideally with comparable educational backgrounds, to maintain consistency with the original study.

One challenge in replicating this study will be ensuring that the stimuli are interpreted in the same way by the new participant group. Additionally, measuring participants' beliefs about consensus requires clear, unbiased wording of the statements to avoid confounding factors such as leading questions. Another challenge will be balancing the number of true and false statements, as well as ensuring the external validity of the consensus judgments, which might

vary based on cultural or contextual differences between the original participant pool and the one I will be using.

Methods

Power Analysis

Original effect size, power analysis for samples to achieve 80%, 90%, 95% power to detect that effect size. Considerations of feasibility for selecting planned sample size.

Planned Sample

Planned sample size and/or termination rule, sampling frame, known demographics if any, preselection rules if any.

Materials

All materials - can quote directly from original article - just put the text in quotations and note that this was followed precisely. Or, quote directly and just point out exceptions to what was described in the original article.

Procedure

Can quote directly from original article - just put the text in quotations and note that this was followed precisely. Or, quote directly and just point out exceptions to what was described in the original article.

Analysis Plan

Can also quote directly, though it is less often spelled out effectively for an analysis strategy section. The key is to report an analysis strategy that is as close to the original - data cleaning rules, data exclusion rules, covariates, etc. - as possible.

Clarify key analysis of interest here You can also pre-specify additional analyses you plan to do.

Differences from Original Study

Explicitly describe known differences in sample, setting, procedure, and analysis plan from original study. The goal, of course, is to minimize those differences, but differences will inevitably occur. Also, note whether such differences are anticipated to make a difference based on claims in the original article or subsequent published research on the conditions for obtaining the effect.

Methods Addendum (Post Data Collection)

You can comment this section out prior to final report with data collection.

Actual Sample

Sample size, demographics, data exclusions based on rules spelled out in analysis plan

Differences from pre-data collection methods plan

Any differences from what was described as the original plan, or “none”.

Results

Data preparation

Data preparation following the analysis plan.

Confirmatory analysis

The analyses as specified in the analysis plan.

Side-by-side graph with original graph is ideal here

Exploratory analyses

Any follow-up analyses desired (not required).

Discussion

Summary of Replication Attempt

Open the discussion section with a paragraph summarizing the primary result from the confirmatory analysis and the assessment of whether it replicated, partially replicated, or failed to replicate the original result.

Commentary

Add open-ended commentary (if any) reflecting (a) insights from follow-up exploratory analysis, (b) assessment of the meaning of the replication (or not) - e.g., for a failure to replicate, are the differences between original and present study ones that definitely, plausibly, or are unlikely to have been moderators of the result, and (c) discussion of any objections or challenges raised by the current and original authors about the replication attempt. None of these need to be long.