

Reply to Ihmels & Ache: “Event based conformity vs. regression to the mean: A comment on Kim and Hommel”

In a previous article, we (Kim & Hommel, 2015) have challenged existing social-psychological accounts of conformity (Asch, 1951) by arguing that what looks like conforming behavior might simply emerge from a failure to distinguish between observations of one’s own behavior and that of others. We tested this idea by adopting the experimental design of Klucharev and colleagues (Klucharev, Hytonen, Rijpkema, Smidts, & Fernandez, 2009; Shestakova et al., 2012), in which participants rate the faces of unfamiliar same-gender individuals twice—once before and once after they were exposed to what they were made to believe is the average rating of the same faces by an important reference group. Under these conditions, the participant’s second rating tends to be biased by the intervening event: it becomes more positive/negative if the group-rating was more positive/negative than the participant’s first rating. We replicated this observation but found the same bias if the “reference-group rating” was replaced by an intervening event without any social meaning, such as the presentation of visual numbers falling within the range of the judgment scale or of movies of a hand pressing a key with a corresponding number. We took this to rule out a social account of the bias but suggested instead that participants may simply store both their own judgment and the intervening event (without keeping track of the authorship) in corresponding event files (Hommel, 2004; Hommel, Müsseler, Aschersleben & Prinz, 2001) and then, when encountering the same face again, retrieve the available event files and report some (possibly weighted) average of the response they imply.

In their commentary, Ihmels and Ache (in press) argue that the very effect we intended to explain may actually not exist—at least not in the design we have adopted from Klucharev et al. (2009) and others. As they demonstrate in a reanalysis of our data, statistically correcting for possible regression-to-the-mean effects makes the conformity effect disappear. This might point to a statistical artifact, but other interpretations are possible: the effect may be real but restricted to extreme ratings, which individuals might be more prone to “correct”. We therefore decided to test the regression-to-the-mean account directly by replicating our basic experiment (for details of the

method, see Kim & Hommel, 2015; for data and further details see https://osf.io/7hf98/?view_only=c5202c0826e24763b1b20708dc055028) without the intervening event. 16 Dutch female participants were simply presented with the same set of pictures showing female faces on two experimental sessions and were to judge their attractiveness on a scale from 1 (*very unattractive*) to 8 (*very attractive*). As we used the same program as in Kim and Hommel, we constructed the pseudo-variable “Direction” based on the (now withheld) intervening event that we would have presented in the original study (a judgment equal to, 1-3 points lower, or 1-3 points higher than the first rating of the participant). As expected, an ANOVA of the changes in the attractiveness ratings produced a significant Direction effect, $F(1.33, 19.93) = 7.39, p < .01, \eta^2p = 0.33$, which in a Bayesian ANOVA indicated “very strong evidence” ($BF_{\text{Direction}} = 38.233$). These findings provide direct support for Ihmels and Ache’s (in press) argument that the shift in the ratings that we previously took as conformity effect occurs even in the absence of the intervening event, presumably reflecting regression-to-the-mean.

Given that our design was used by numerous previous demonstrations of “conformity effects” as well, these observations suggest that such effects no longer exist—which would feed earlier reports of a decline of conformity effects in Western societies (Bond & Smith, 1996). It is thus possible that the original observations of Asch (1951) and contemporaries were so much interwoven into the Zeitgeist of their times that they reflect more of a historical peculiarity than a universal aspect of human behavior (cf., Gergen, 1973). Interestingly, the degree to which stimuli trigger the retrieval of event files can be controlled (Colzato, Steenbergen & Hommel, 2017; Keizer, Verment & Hommel, 2010), and the degree of that control relies on cultural metacontrol biases towards cognitive persistence (in individualistic cultures) or flexibility (in collectivistic cultures; see Hommel & Colzato, 2017). If we consider the fact that our participants stem from the Netherlands, a country in the Top-5 Hofstede’s international individualism scale (Hofstede, Hofstede & Minkov, 2010), our null-finding would be consistent with the assumption that “conformity” reflects stimulus-induced event-file retrieval. If true, this suggests that more robust conformity effects can be found in more collectivistic societies. Indeed,

in a recent follow-up study (Kim, Ma & Hommel, submitted) we successfully demonstrated, in a new design that made regression-to-the-mean effects impossible, that Chinese participants tested in China show significantly stronger conformity effects than Dutch participants.

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