DO PEOPLE REALLY THINK THEY ARE ALONE IN A CROWD OF SHEEP?

REPLICATION AND EXTENSION OF PRONIN ET AL. (2007)

by

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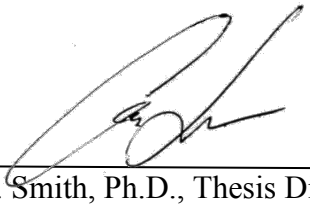

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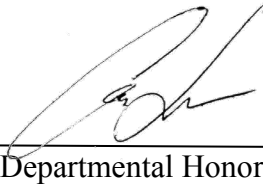

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Abstract

People often think they are less biased, more rational, and less likely to conform than their peers. For example, research by Pronin, Berger, and Molouki (2007) found that Princeton students evaluated themselves as much less likely to conform compared to the average Princeton student. Although the results were convincing, this study was conducted using only 40 participants from a prestigious university, which raises potential concerns about the replicability and generalizability of their findings. We replicated this study in order to generalize the findings to a broader range of participants and use a larger sample size. We also extended the previous research to assess if participants would evaluate a close friend the same as the self in regard to perceptions of conformity. Consistent with the original study, we found that ASU students thought they conformed less than their peers. However, they reported that their close friend conformed as much as their peers. The results of our replication generalize the original findings to a new sample of participants and also show that this effect is specific to perceptions of the self vs. others and not when comparing a close friend to others.

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Conformity plays a part in many of the decisions that people make; however, people, especially in Western, individualistic countries tend to view their own decision-making as robust against pressure to conform. Interestingly, this isn't because people believe that conformity is uncommon. Indeed, in one landmark study, Pronin et al. (2007) demonstrated that people judge conformity as commonplace for others, but viewed themselves as uniquely unlikely to conform. The present study examines this intriguing asymmetry and seeks to replicate Pronin et al.'s research and extended it by testing an alternative explanation for the results.

Pronin et al. (2007) conducted five studies examining whether people conform less than their peers. For example, their Study 2 examined how much participants thought their decision to purchase an item (an iPod) was influenced by social pressure relative to their peers. Overall, participants indicated that their decisions were less influenced than their peers. Interestingly, this same pattern was found regardless of whether conformity was described as a desirable or undesirable force influencing decisions.

Pronin et al. (2007) explained this asymmetry by suggesting that people evaluate thoughts and feelings when explaining their own behavior, but use actions to explain the behavior for others. When people use introspection to evaluate their own behavior, they focus on internal thoughts and feelings and miss inaccessible and automatic influences of their behavior—a bias referred to as the introspective illusion (Pronin & Kugler, 2007).

Not only can the introspective illusion create differences in how much people think their behavior and other people's behavior is influenced by conformity, but it contributes to the perception that other people are more biased than the self. Pronin, Lin, and Ross (2002)

identified this bias blind spot when participants compared how biased they were as compared to the average American. For example, people thought they were less likely to exhibit the fundamental attribution error, self-serving biases, and the halo effect than others. As with conformity, exhibiting these biases is often cognitively inaccessible (i.e. people often do not realize they are exhibiting the bias in question), so relying on introspection leads people to think they are not biased. However, because these biases are relatively well-known, people readily use this general knowledge when evaluating others. Again, the difference in the type of information people use to assess their own and other people's behavior leads to the asymmetry in self–other perception (Pronin, 2008).

It is possible that asymmetric perceptions of self and others are a result of the introspective illusion, but there is an alternative explanation. In Pronin et al.'s (2007) study, participants compared themselves (an individual) to their peers (a group). There is a large body of research showing that people often make different judgments about individuals and groups, regardless of any introspective differences (e.g., Giladi & Klar, 2002; Klar & Giladi, 1997, 1999; Price, Smith, & Lench, 2006). For example, Giladi and Klar (2002) had participants examine a group of six pleasant smelling soaps. Then, one soap was selected at random and participants were asked to compare the selected soap's smell to the rest of the group. People tended to rate the randomly selected soap as better smelling than the group, regardless of which soap was chosen. Obviously, each individual from a group cannot be better than the group it is a part of and so presumably the effect is explained by participants focusing on the quality of the individualized soap and underweighting the quality of the grouped soaps. In other words, even though people are asked a comparative question (i.e., how pleasant is this soap relative to the rest

of the soaps?), they are largely answering an absolute question (i.e., how pleasant is this soap? see also, Klar & Giladi, 1999).

The finding that people often focus on the target of the judgment more so than the comparison group provides an alternative explanation for why people tend to report they conform less than groups. It is possible, for example, that if people compared any individual to a group, they would report the individual conforms less than the group. Presumably, people would focus on the multitude of factors influencing the behavior of the individual and accurately evaluate that conformity is only one of those factors. Then, when asked to compare how much the individual conforms relative to the group, they will simply be answering the question about how much the individual conforms. Therefore, the finding by Pronin et al. (2007) might not be driven by the introspective illusion, but simply by the fact that people will evaluate any individual as conforming less than the group.

The current study replicated Pronin et al.'s (2007) Study 2 examining perceptions of comparative conformity. Pronin et al.'s (2007) research is among the only to demonstrate that people believe that they are less susceptible to conformity than others, and their work has been cited hundreds of times. However, evidence for their claim rests on a small sample ($N = 40$) of highly selective participants (i.e., Princeton undergrads). Because of the small sample size, relatively large number of citations, and overall importance of the research, replication of this study seemed necessary.

In addition to replicating their study, we also extended their research by testing a competing explanation. Specifically, whereas some people evaluated how much they conform relative to their peers, other people evaluated how much their close friend conformed relative to their peers. This allowed us to disentangle whether having introspective access produced the

asymmetry in self-other perceptions, or if it was simply the result of comparing a single target to a group of referents.

For the self condition, we hypothesized that participants would rate their conformity as less than the average student. For the close friend condition, we hypothesized that participants from both the undesirable and desirable conditions would rate their conformity as similar to the average student. In short, we expected to replicate the results of Pronin et al. (2007), but only in the self condition and not in the close friend condition.

Method

To conduct our replication Pronin et al.'s (2007) Study 2, we followed their procedures using similar instructions, questions, and analyses. Pronin et al. asked participants about purchasing an iPod—a product no longer being manufactured—so we updated the purchase to be about an iPhone.

Participants

Our preregistered target sample size was 60 participants per condition (240 total). This would give us three times as many participants per condition as in Pronin et al.'s (2007) study. A total of 314 undergraduate students completed the survey for course credit. Of those, 26 indicated they did not own an iPhone and 1 did not follow directions, leaving a final sample size of 287 (M_{age} = 19.3, SD_{age} = 1.72, 32.4% men, 67.6% women).

Design and Procedure

This study was a 2 (desirability: desirable vs. undesirable) X 2 (target: self vs. other) between subjects design. Participants completed this study as part of a larger survey with multiple unrelated studies. After receiving instructions about the study, participants were asked what type of phone they owned (iPhone, Android phone, don't own a smartphone, don't know

the type of phone they own). If participants indicated they own an iPhone, they continued with the survey; if not, they were taken directly to the demographic's questions. Participants who were assigned to the close friend condition were asked to type the name or nickname of a close friend that they know owns an iPhone. This name was then piped into later questions asked about the friend. All participants then read a short paragraph—adapted form Pronin et al. (2007)—giving possible reasons for purchasing an iPhone:

> "People are attracted to products for various reasons. Sometimes, people want a certain product because they really like the particular qualities that the product has to offer. For example, in the case of the iPhone, they might like its large memory capacity, clear sound, high depth camera, or sleek and modern styling."

The next paragraph included the same desirability manipulation used by Pronin et al. (2007). The socially desirable condition is underlined, and the socially *undesirable* condition is italicized:

> "While it is [not necessarily wrong/*of course a good idea*] to buy an iPhone for these reasons, sometimes people want certain products for more social reasons. For example, in the case of the iPhone, they might notice that their classmates or friends own one and that might affect their interest in having one. Everyday observation, and a good deal of psychological research, suggests that being affected by this type of social influence [is/*is not*] a good thing. [It helps us to connect with and relate to those around us. It is easier for us to relate to other people if we have things in common or share similar experiences./*By leading us to follow along, it prevents us from thinking for ourselves. It may be easier to follow social norms, but this leads us to sacrifice our individuality.*] Thus, doing something as simple as buying an iPhone can be a [good thing by strengthening our social connection with other people, and providing an additional dimension on which we

can communicate and share experiences./*bad thing by getting in the way of our being true to ourselves, and leading us to go along with what those around us are doing rather than just being ourselves.*]"

After reading the desirability manipulation paragraph, participants were asked about the desirability of being influenced by social factors ("When deciding which phone to buy, how desirable is it for [you] [friend's name] to be influenced by the type of phone [your] [their] friends or classmates own?") on a 1 (very undesirable) to 7 (very desirable) response scale.

Then, participants were asked about how they or their friend compares to the average Appalachian State University (ASU) student ("Compared to the average ASU student, how much was [your] [friend's name] decision to buy an iPhone influenced by the type of phone [your] [their] friends or classmates owned?") again using a 1 (much less than the average ASU student) to 7 (much more than the average ASU student) response scale. Finally, participants were asked their age, gender, and ethnicity, and then thanked for their participation.

Results

Self Judgments

Social desirability. We first examined whether the desirability manipulation successfully influenced participants' judgments of the desirability of being influenced by friends and classmates. There was a marginally significant difference between the undesirable ($M = 4.58$, $SD = 1.52$) and desirable ($M = 4.99$, $SD = 1.24$) conditions, $t(144) = 1.74$, $p = .084$, $d = .29$, showing that participants were slightly more likely to report conforming when it was desirable than undesirable.

Perceived conformity. Next, we followed the same statistical analyses as Pronin et al. (2007) and examined whether participants felt they were less socially influenced than their peers

when buying an iPhone. A one-sample t-test revealed that, overall, participants reported they conformed less than their peers ($M = 3.56$, $SD = 1.14$, where 4 is "About the same as the average ASU student"), $t(145) = 4.72$, $p < .001$, $d = .39$. Although there was a marginally significant difference between participants' conformity judgments in the desirable and undesirable conditions, $t(144) = 1.74$, $p = .085$, $d = .29$, participants in both the undesirable ($M = 3.41$, $SD = 1.30$), $t(78) = 4.08$, $p < .001$, $d = .46$, and desirable ($M = 3.73$, $SD = 0.90$), $t(66) = 2.45$, $p = .017$, $d = .30$, conditions reported conforming less than their peers. This pattern largely replicates the findings by Pronin et al. (2007) that students reported conforming less than their fellow students.

Close Friend Judgments

Social desirability. We next examined the influence of the desirability manipulation on the desirability of their friend being influenced by their peers. There was not a significant difference between the undesirable ($M = 4.84$, $SD = 1.52$) and desirable ($M = 5.01$, $SD = 1.62$) conditions, $t(139) = 0.67$, $p = .504$, $d = .11$. This indicates that the desirability manipulation did not affect participants' perceptions of how desirable or undesirable it was for their friend to conform.

Perceived conformity. We examined whether participants reported that their close friend conformed less than their friends' peers. A one-sample t-test revealed that, overall, participants reported their friend conformed about the same as their peers ($M = 4.01$, $SD = 1.31$, where 4 is "About the same as the average ASU student"), $t(140) = 0.13$, $p = .898$, $d = .01$. There was not a significant difference between participants' conformity judgments in the desirable and undesirable conditions, $t(139) = 0.90$, $p = .373$, $d = .15$. Participants in both the undesirable ($M = 3.91$, $SD = 1.22$), $t(66) = 0.60$, $p = .548$, $d = .07$, and desirable ($M = 4.11$, $SD = 1.39$), $t(73) =$

0.67, $p = .506$, $d = .08$, conditions reported their friend conforming relatively the same compared to the average ASU student.

Comparison of Self and Close Friend

Finally, to directly compare self judgments with judgments made about their close friend, we conducted a 2 (desirability: desirable vs. undesirable) x 2 (target: self vs. friend) ANOVA on participants' comparative conformity responses (see Figure 1). This analysis revealed a marginally significant main effect of desirability, $F(1, 283) = 3.28$, $p = .071$, $\eta_p^2 = .011$; people made slightly higher comparative judgments in the desirable vs. undesirable condition. There was also a main effect of target, $F(1, 283) = 9.298$, $p = .003$, $\eta_p^2 = .032$; people gave higher judgments when evaluating a friend vs. self. Finally, there was not a significant interaction, $F(1, 283) = 0.198$, $p = .657$, $\eta_p^2 = .001$.

Discussion

This study replicated previous research on perceptions of conformity (Pronin et al., 2007, Study 2). We increased the sample size and created an additional condition to evaluate perceptions of conformity for a close friend. We found that the results for the self condition replicated the results of the original study; participants evaluated themselves as conforming less than the average ASU student. Additionally, we found that participants were more likely to say that a close friend conforms about the same as the average ASU student.

These results confirm that when thinking of the self, people tend to assume that they conform less than their peers, which is most likely due to introspection illusion (Pronin & Kugler, 2007). Also, based on the friend condition, we can assume that the alternative explanation of individuals vs. groups comparisons is not affecting participants' judgments of

conformity. Even in the friend condition, participants still rated their friend as conforming similarly to peers, which means they are not evaluating the individual similarly to the self.

Due to the broad nature of conformity, there are some limitations of this study. This study is the result of one decision in one context (perceptions of conformity with the iPhone). Our study only replicated one of the studies by Pronin et al. (2007), but they conducted multiple studies in several different contexts where they evaluated perceptions of conformity. Additionally, both our study, and the original study, evaluated perceptions of conformity with college students.

Overall, despite limitations, our study successfully replicated the results of the previous study by Pronin et al. (2007). The replication and extension of our study suggests that introspection illusion might have an important role in perceptions of conformity when evaluating the self, but not others. Apparently, people really do think they are alone in a crowd of sheep.

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Figure 1

Comparing Conformity Responses