



2009

Conformity: The Effects of Misinformation Without Direct Social Pressure

Follow this and additional works at: <https://scholarsarchive.byu.edu/intuition>



Part of the [Psychology Commons](#)

Recommended Citation

(2009) "Conformity: The Effects of Misinformation Without Direct Social Pressure," *Intuition: The BYU Undergraduate Journal of Psychology*. Vol. 5 : Iss. 1 , Article 7.

Available at: <https://scholarsarchive.byu.edu/intuition/vol5/iss1/7>

This Article is brought to you for free and open access by the Journals at BYU ScholarsArchive. It has been accepted for inclusion in *Intuition: The BYU Undergraduate Journal of Psychology* by an authorized editor of BYU ScholarsArchive. For more information, please contact scholarsarchive@byu.edu, ellen_amatangelo@byu.edu.

Conformity: The Effects of Misinformation Without Direct Social Pressure

Jeff Gale, Ryan Johnson, and Alex Hale

ABSTRACT *Most of the current psychological knowledge about conformity relates to direct social pressure. However, little is known about how people conform to perceived social pressure. This study examined whether individuals conform to perceived, not direct, social pressure in a naturalistic setting. We hypothesized that individuals would conform to perceived social pressure and that females would conform more than males. Participants were invited to guess the number of M&M's in a jar. An experimental group was subjected to fabricated guesses without direct social pressure to conform. Results indicate a main effect for conformity ($p < 0.001$) and for gender ($p < 0.05$). Individuals, especially females, were found to conform to perceived social pressure.*

When individuals act according to social norms, consciously or subconsciously, they are said to conform. Evidence of conformity can be found even in basic, everyday decisions. Fujihara (1976) has suggested that such choices are often strongly influenced by the perception of what other people do. Although deciding to align choices with others' often can be a subconscious process, it may yield less than desirable results. Indeed, social psychological research has demonstrated that people will sometimes conform to others beliefs and actions even if doing so inflicts severe harm on another individual (Cokley et al., 2001; Haney, Banks, & Zimbardo., 1973; and Milgram, 1963).

Conformity can be influenced by many factors, but one of the most important is social pressure – perceived and real. We defined social pressure as the influence of others intended to alter an individual's attitudes or behaviors. This pressure can lead people to conform negatively, such as accepting misinformation. Our study analyzed the effects of perceived (subtle) social pressure independent of direct (overt) social pressure on the acceptance of misinformation. Perceived social pressure does not

involve social interaction but may be due to information purported to be from other social members. Direct social pressure is based on social interaction. For the purpose of our study, conformity was measured as compliance to what was represented as the majority opinion. Individuals who altered their actions from the norm based on the perceived opinion of others were said to conform.

Research has identified the combined effects of direct social pressure and misinformation on conformity. Asch (1948) showed that social pressure leads most people to conform even when they are aware of misinformation. This study also brought an important question to light: Is direct social pressure, as opposed to perceived social pressure, a necessary condition for conformity? Much of the subsequent research on conformity has focused on direct social pressure and shown that the physical presence of others increases conformity (Haney, Banks, & Zimbardo, 1973; Hoffman, Granhag, See, & Loftus, 2001; Jetten, Postmes, & McAuliffe, 2002; and Tesser, Campbell, & Mickler, 1983). In addition, other studies have found that direct social pressure can lead to the acceptance of blatant misinformation (Mudd and Govern, 2004; Wright, Mathews, & Skagerberg, 2005; and Wright, Self, & Justice, 2000).

However, little research has been published on conformity in settings with only perceived social pressure. Garry, French, Kinzett, & Mori (2008) showed that individuals not only comply but also accept misinformation in a setting lacking direct social pressure, although there was social interaction in the setting. Irwin and Van Holsteyn (2002) found that people's expectations about voting outcomes conformed to opinion polls. It is unclear whether the conforming behavior they observed resulted from perceived social pressure. Our study sought to build on past research by observing conformity in a situation lacking not only direct social pressure but also social interaction. We assessed whether or not the mere

presentation of information about the opinions of others is enough to produce conformity. We hypothesized that individuals will conform to the misinformation presented when only the perception of social pressure exists, that is, when direct interaction with other participants is absent.

Additionally, we analyzed potential differences between levels of conformity in men and women. Previous research has not been clear about gender-based conformity differences. Most research suggests that differences in conformity are dependent on specific factors such as situation (Maupin and Fisher, 1989; Stoner and Panek, 1985; Tuthill and Forsyth, 1982), one a study proposed that women conform more than men on common tasks in everyday settings (Reysen and Reysen, 2004). We hypothesized that women would conform more often than men in the situation previously described.

Method

Participants

A total of 314 participants (157 females and 157 males) completed the experiment without payment. Subjects' ages ranged from 18 to 32 years with a mean of 21.25 years. The participants were Brigham Young University students. They were assigned randomly to three groups: a control group and two conformity groups. The control group contained 74 females and 86 males. The first conformity group contained 49 females and 35 males, while the second conformity group contained 24 females and 26 males. Among the different groups there were 75 freshman, 73 sophomores, 63 juniors, 70 seniors and 10 graduate students. The differential in total participants and participants by gender and year in school is accounted for by those that did not list their gender or year in school.

Materials

We prepared two identical, transparent 1 liter jars, each containing 532 Peanut M&Ms. Other materials included a survey asking for demographic information and the participants' guess about the number of peanuts in each jar. Informed consent forms were not used because they were ruled unnecessary by the IRB.

Procedures

We recruited passersby to participate in the research by asking them to complete a short survey. The research was collected over two days. On the first day we collected data from those we designated as the control group. On the second day we collected data from those designated as the experimental groups.

Once people agreed to participate, they were asked to fill out a questionnaire including demographic information and their guess of the number of M&Ms. Researchers did not follow a standardized script because it was desirable for participants to be unaware that an experiment was being performed. Participants were told that the study was designed to assess visual spatial ability. They were allowed, two at a time (one per jar), to view the jar of M&Ms and to estimate the number of candies it contained. Donuts were offered as an incentive for the most accurate guess.

Before the second day we analyzed the data obtained from the first day to find the mean and standard deviation of the control group's guesses and as a function of the participants' gender. We used this information to create dummy data sets. The first data set included fake guesses between one and two standard deviations above the mean; participants receiving this manipulation were classified as the moderate-misinformation group. The second data set included fake guesses between two and three standard deviations above the mean; participants receiving this manipulation were classified as the high-misinformation group. Each group was viewed as having conformed if their guesses deviated significantly from the control group and towards the misinformation that was provided. This process was done separately for the male and female data sets. This resulted in a total of four data sets: a male and female data set for both the moderate and high misinformation groups.

On the second day, a new set of participants filled out the same demographic form but were given a coding number and asked to list their guess on a separate sheet of paper that was found on a clipboard. The clipboards contained two sheets that were dummy data sets and a third sheet that was designated for the participant's guess. The moderate-misinformation group dummy data sets were used first, followed by the high-misinformation group dummy data sets. When the experimenter described the recording process to participants, he casually mentioned

that the guesses shown on the first two sheets were made by previous participants. Participants were handed separate clipboards and every effort was made to ensure that each participant filled out the survey without consulting with others. After the data were collected, they were stored in a safe location.

Results

We first analyzed the raw data from each group and inspected them for outlier scores. Five data points were eliminated from the analysis because they were statistical outliers.

We subsequently performed a factorial ANOVA. It revealed a main effect for conformity [$F(1, 282) = 44.4, p < 0.001$] (see Table 1) showing that as the misinformation increased so did the amount that participants were willing to guess regardless of how accurate the guess appeared to be. There was also a main effect for gender [$t(242) = 2.974, p < 0.0025$] with females guesses matching more closely to the misinformation provided. The data for gender needed to be standardized because of the differences in the conformity scales which were based on the means and standard deviations of each gender. After standardization of the scales the gender difference continued across conditions.

Discussion

We hypothesized that individuals would conform to perceived social pressure and that women would conform more than men. Our results supported our hypotheses, such that the average guess was significantly closer to the misinformation provided than the average guess when no information was provided, and that the guesses tended to become more extreme when the misinformation became more extreme. We also found that women tended to match their guesses more closely to the misinformation than did men.

Contemporary Western culture strongly values a nonconformist individuality (Jetten, Postmes, & McAuliffe, 2002). The effects of subtle pressure to conform

Figure 1. Mean number of candies guessed by group.

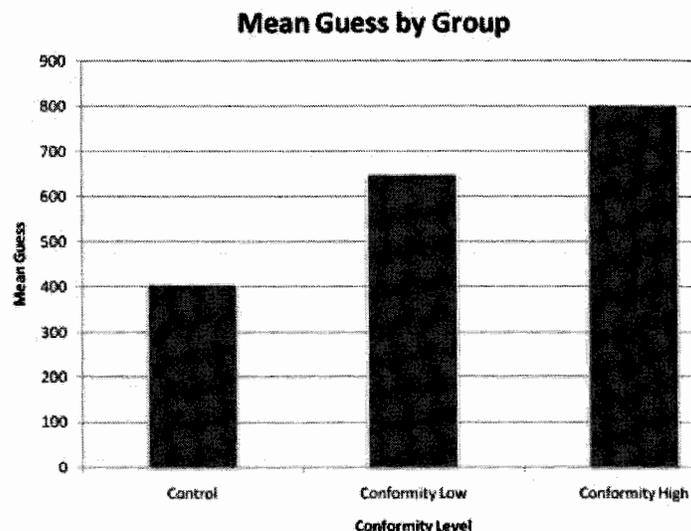
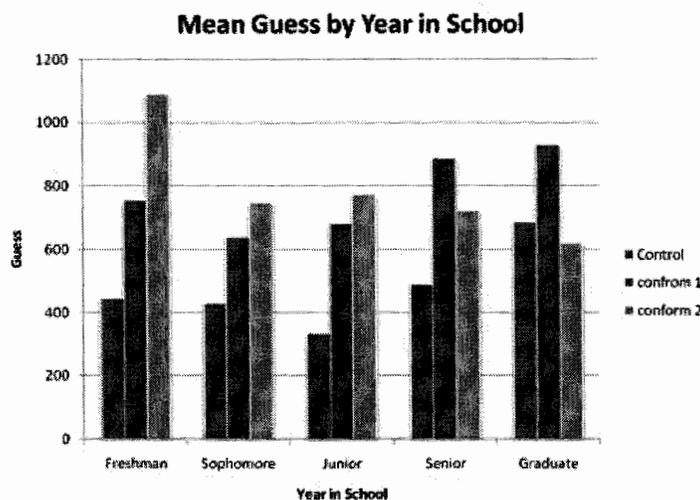


Figure 2. Mean guesses by year in school.



come without any apparent attack on one's individuality. With regard to our study, a participant may have thought he or she was guessing the number of M&Ms in a jar independently of others, but because of the inclusion of the dummy data sets, was nevertheless influenced by others, if indirectly. Had the pressure been direct (verbal encouragement) it is possible that participants may have demonstrated reactance and actually lowered the amount of their guess.

Additionally, we found that female guesses tended to match the fake numbers more than males guesses did. This result is consistent with Reysen and Reysen's (2004) finding that sex differences in conformity occur in everyday settings. However, male numbers may have matched the

fake guesses less because the women were given higher fake numbers to begin with. Future studies might address whether men and women conform differently in response to indirect social pressure that provides them with the same information.

Our results also showed that older individuals tended to conform less than younger individuals (see Table 2). Freshmen, sophomores, and juniors all showed increases in mean guesses between the control group and the first and second conformity groups. However, seniors and graduate students showed decreases in mean guesses between the first to the second conformity groups in comparison to the control group, with graduate students showing a statistically significant, more marked decrease. Thus, within the age range of our participants, an increase in age was accompanied by a decrease in susceptibility to perceived social pressure. Because graduate students made up a small portion of participants, their information may need to be tested further using a larger sample. Seniors, however, had a larger number of participants so their data may be more indicative of the true population. Further research may address this result across a wider age range.

As previously mentioned, the sample was limited to a specific population in Provo, Utah, namely, students at Brigham Young University. This institution possesses specific cultural norms due to the mostly LDS population and the college lifestyle. This constitutes a possible limitation of the study. Another possible limitation was the fact, that the verbal instructions presented to participants were not always the same. These researchers generally followed the same procedure when instructing participants so as to avoid direct social pressure, but without a set script, it is possible that individuals may have been influenced by different researchers. However, it may have been beneficial not to have followed a strict script because we wanted to observe people's actions in an everyday setting. With these limitations taken into consideration, we remain confident about the implications of our results, namely, that perceived social pressure may exert a substantial influence on one's tendency to conform.

References

- Asch, S. E. (1951). *Effects of group pressure upon the modification and distortion of judgments*. In H. Guetzkow (Ed.), *Groups, leadership and men; research in human relations*. (pp. 177-190). Oxford: Carnegie Press.
- Carnaghi, A., & Yzerbyt, V. Y. (2006). Social consensus and the encoding of consistent and inconsistent information: When one's future audience orients information processing. *European Journal of Social Psychology, 36*, 199-210.
- Cokley, K., Miller, K., Cunningham, D., Motoike, J., King, A., & Awad, G. (2001). Developing an instrument to assess college students' attitudes toward pledging and hazing in Greek letter organizations. *College Student Journal, 35*, 451-456.
- Fujihara, M. (1976). An experimental study of developmental trend in conformity: The effect of group pressure from peer-, teacher-, and mother-groups on conformity. *Japanese Journal of Psychology, 47*, 193-201.
- Garry, M., French, L., Kinzett, T., & Mori, K. (2008). Eyewitness memory following a discussion: Using the MORI technique with a Western sample. *Applied Cognitive Psychology, 22*, 431-439.
- Haney, C., Banks, C., & Zimbardo, P. (1973). Interpersonal dynamics in a simulated prison. *International Journal of Criminology & Penology, 1*, 69-97.
- Hoffman, H. G., Granhag, P. A., See, S. T. K., & Loftus, E. F. (2001). Social influences on reality-monitoring decisions. *Memory & Cognition, 29*, 394-404.
- Hornsey, M. J., Majkut, L., Terry, D. J., & McKimmie, B. M. (2003). On being loud and proud: Non-conformity and counter-conformity to group norms. *British Journal of Social Psychology, 42*, 319-335.
- Irwin, G. A., & van Holsteyn, J. J. M. (2002). According to the polls: The influence of opinion polls in

- expectations. *Public Opinion Quarterly*, 66, 92-104.
- Jetten, J., Postmes, T., & McAuliffe, B. J. (2002). "We're all individuals": Group norms of individualism and collectivism, levels of identification and identity threat. *European Journal of Social Psychology*, 32, 189-207.
- Maupin, H. E., & Fisher, R. J. (1989). The effects of superior female performance and sex-role orientation on gender conformity. *Canadian Journal of Behavioural Science/Revue Canadienne Des Sciences Du Comportement*, 21, 55-69.
- Milgram, S. (1963). Behavioral study of obedience. *Journal of Abnormal and Social Psychology*, 67, 371-378.
- Mudd, K., & Govern, J. M. (2004). Conformity to misinformation and time delay negatively affect eyewitness confidence and accuracy. *North American Journal of Psychology*, 6, 227-238.
- Reysen, S., & Reysen, M. B. (2004). Sex differences on a measure of conformity in automated teller machine lines. *Psychological Reports*, 95, 443-446.
- Stoner, S. B., & Panek, P. E. (1985). Age and sex differences with the Comrey Personality Scales. *Journal of Psychology: Interdisciplinary and Applied*, 119, 137-142.
- Tesser, A., Campbell, J., & Mickler, S. (1983). The role of social pressure, attention to the stimulus, and self-doubt in conformity. *European Journal of Social Psychology*, 13, 217-233.
- Tuthill, D. M., & Forsyth, D. R. (1982). Sex differences in opinion conformity and dissent. *Journal of Social Psychology*, 116, 205-210.
- Wright, D. B., Mathews, S. A., & Skagerberg, E. M. (2005). Social recognition memory: The effect of other people's responses for previously seen and unseen items. *Journal of Experimental Psychology: Applied*, 11, 200-209.
- Wright, D. B., Self, G., & Justice, C. (2000). Memory conformity: Exploring misinformation effects when presented by another person. *British Journal of Psychology*, 91, 189-202.