

# The Tendency of Teenagers to be Conformists and Follow the Crowd

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## Summary

**This research evaluates whether teenagers tend to keep their own opinions or be conformists and follow the opinion of the majority in a group. Group influence has been researched since the 1950s and the main findings agree that individuals will follow others in order to be accepted in a group. The degree of conformity behavior depends on the ambiguity of the situation. We hypothesized that teenagers would most likely adhere to group opinion and answer what the majority answered, even if they know that it was not the right answer, in order to be part of the group. We also believed that the degree of conformity would be high regardless of gender, but lower for less difficult tests. To investigate the degree to which teenagers in today's society surrender their own ideas and adopt the opinions of the group, we subjected a group of teenagers to the Solomon Asch visual line test with an additional math test experiment. These tests were done with the help of actors known as confederates that were asked to say the wrong answer out loud before the participant gave their answer. A total of 32 participants between 16-22 years took part in the line and math tests. The results were not as expected and showed no conformity behavior. Additionally, conformity was not correlated to gender or type of test administered (visual line vs math). Contrary to our hypothesis, teenagers did not show a conformity behavior, since only 9% of all individuals showed full conformity behavior.**

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## Introduction

Do humans tend to be the leaders or are they conformists and tend to follow the crowd? This is a question that was first addressed at the time social psychology was emerging and continues to be considered today. During the 20<sup>th</sup> century, experiments to evaluate group influence were primarily done by asking students to express their point of view on different subjects. By the time a student heard opinions from a large group of

individuals that were contrary to his opinion, his original opinion would completely change in support of the group opinion (1). With these results, researchers determined that individuals were influenced by external manipulation and could be easily persuaded to follow the others instead of acting on their own (1).

The Solomon Asch (1) experiment was one of the many experiments done during the 20th century to see if individuals conformed or not. The experiment consisted in presenting to subjects a card with a line on it, followed by three lines labeled "A", "B", and "C". One of these lines was the same as that on the first card, and the other two lines were clearly longer or shorter. Each participant was then asked to say aloud which line matched the length of that on the first card. Of the participants, seven to nine male college students served as actors and gave their answer aloud before the participant. The actors were told beforehand to give an incorrect answer to a given task to see if the subject under test would conform and say the same wrong answer. When the experiment started, they were all told that it was a psychological experiment in visual judgement, where they would compare the lengths of lines (1). Only one quarter of the subjects answered it correctly and at one point throughout the experiment the subjects would follow what the actors said even if the answer was wrong (1).

A remaining question is why this conformity happens. Why do people conform to other's opinion even if they are different to one's own opinions? The word conformity means the behavior of an individual is in accordance with the socially accepted conventions or standards. It often takes place when a person has a conscious or subconscious fear of rejection or becoming a dropout (2). According to studies made by Asch (1), stating out loud an individual's position or not making it anonymous results in a higher conformity behavior (3). In conclusion, personal opinions can be influenced by the opinions of others. Understanding group influence has been one of the greatest difficulties that social psychology has faced (4). There are two types of social influence: normative and informational. Normative group influence consists of an individual's need for the approval of others; therefore, the individual adopts the attitudes of the majority (3). On the other hand, informational group influence refers to the group verification and corroboration of an individual's judgment such that the individual copies or uses societal

norms when acting (3).

Important variables that account for conformity behavior are ambiguity of the situation, group size and pressure, and gender, among others. For conformity to occur, a degree of ambiguity is needed (5). It was observed that when task difficulty was low, the impact of confederates on conformity was lower than when the task difficulty was increased (6). Group size also influences conformity. When group size increases, group pressure also increases. This group pressure can shape the opinions of those within the group. The pressure towards uniformity leads to conformist behaviors and a tendency to share group attitudes (7). Nonetheless, people may modify their judgment not only under the influence of a group, but also because they get to know new realities, because of the authority that others show to the world, or even due to the attractiveness of the people (8). In conclusion, group opinions can influence one's own opinions and judgments by the pressure they apply on individuals.

A behavior that relates to the decision-making process while there is group pressure is known as herd behavior. Herd behavior describes a scenario where people follow a crowd for a certain period (9). When people participate in herd behavior, they imitate or fall into a state of social somnambulism in which they mentally and physically unify with the group actions unconsciously, as if sleepwalking.

Herd behavior happens to make sense of social reality and is not as irrational as could be assumed (10). When individuals live in proximity to different groups, they use reference groups that give them a starting point in order to shape their identity, attitude, behavior and beliefs (11). While deciding which group to belong to, people search for an example in others so that they can see what society approves of (9). The principal reason that people use reference groups is that humans make constant comparisons with others so that they can evaluate their performance and form a judgment of themselves (12). As people follow someone else, especially a successful role model, it takes the person to a position where they imitate the model they choose to follow (13).

Some studies indicate that women tend to conform more than men, especially during group pressure situations, which has been explained by the belief that women are more concerned than men with social aspects of interactions and others' feelings (14, 15). On the other hand, according to psychological studies, the behaviors of men and women are essentially the same when men and women have the same roles (15). Additional studies found no support for the hypothesis that women display more conformity than men due to a heightened sensitivity to social interactions (16). Analysis of sex differences indicated older females were

significantly more conforming than older males when under surveillance, but among younger subjects, there were no sex differences (17). Furthermore, a meta-analysis study indicated that male researchers obtained larger differences in women conformity but women researchers did not find sex differences in conformity, suggesting that the sex of the researchers conducting the study could be skewing results (14).

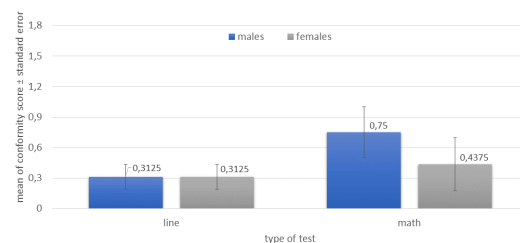
The purpose of this study is to evaluate conformity behavior in teenagers and to determine the effect that test difficulty and gender have on the likelihood of conformity. We hypothesized that the subjects in this experiment would show conformity behavior by following and answering questions the way that the actors/confederates answered, even if they knew that it was not the right answer. We also hypothesized gender would not significantly impact the likelihood of conformity behavior and that both male and females would try to be part of the group by showing following behavior. Furthermore, we expected the following behavior to increase with test difficulty.

## Results

### Conformity Behavior

The experiment took place in Tecnológico de Monterrey high school. For evaluating conformity behavior, visual line tests and mathematical tests were used. Math tests were considered more difficult than line visual tests. Testing was done with the help of confederates (actors) that were asked to say a wrong answer out loud to influence the participant's response.

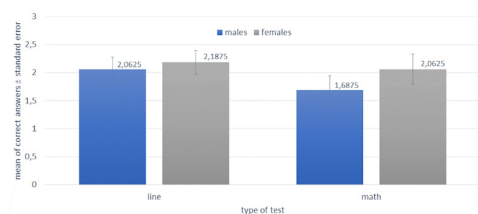
The first part was evaluated with the line test and the second one with the math test. Scores from 0 to 3 were assigned to evaluate conformity level. A score of 0 was given if none of the three answers of the participants followed the wrong answers given by the confederates. A score of 1 was awarded if one answer given by the participant followed one wrong answer given by the



**Figure 1: Conformity Scores Based on Test and Gender.** Scores are on a scale from 0 to 3, 0 meaning no conformity behavior and 3 meaning full conformity behavior. There was no statistical difference in mean conformity score due to gender ( $p = 0.4342$ ) or type of test ( $p = 0.1616$ ).

confederates. Next, a score of 2 was given if two answers given by the participant followed two wrong answers given by the confederates. Finally, a score of 3 was assigned if three answers given by the participant followed all three wrong answers given by the confederates. In this way, a level of conformity (conformity score) was assigned, with a higher score indicating a higher degree of behavioral conformity.

**Figure 1** shows the results of the mean conformity scores for each type of test: line test and math test. No statistically significant difference due to gender ( $p = 0.4342$ ) or between type of test ( $p = 0.1616$ ) were observed by two-way ANOVA analysis (**Figure 1**). Teenage students did not show a difference in being conformists due to gender or due to the type of test. The conformity behavior score for the line test was the same for both males and females  $0.3125 \pm 0.12$  (mean  $\pm$  standard error), and the conformity score for the math test was  $0.75 \pm 0.25$  for males and  $0.438 \pm 0.26$  for females. The data also showed only three students (one male and two females) followed all the confederate answers for the math test, and no students followed all of the confederate answers for the line test.



**Figure 2: Correct Number of Answers Based on Test and Gender.** Scores are on a scale from 0 to 3, 0 meaning no correct answers and 3 meaning all correct answers. There was no statistical difference in mean correct score due to gender ( $p = 0.295$ ) or type of test ( $p = 0.295$ ).

### Correct Answers

**Figure 2** shows the results of the mean of correct answers of participants for both tests: line and math. For the line test, six male students and seven female students gave all the correct answers for the three trials (41%), and for the math test four male students and seven female students gave all the correct answers for the three trials (34%). No statistically significant difference due to gender ( $p = 0.295$ ) or between type of test ( $p = 0.295$ ) were shown by two-way ANOVA analysis for correct answers given (**Figure 2**). Teenage students did not show a difference in ability to answer correctly due to gender or type of test. The correct answers' score for the line test for males was  $2.06 \pm 0.213$  (mean  $\pm$  standard error), and for females  $2.19 \pm 0.208$ , and the correct answers' score for the math test

was  $1.69 \pm 0.254$  for males and  $2.06 \pm 0.266$  for females. On average, participants gave two out of three correct answers regardless of the type of test or their gender.

### Discussion

We believed that the subjects in this experiment would follow and answer what the confederates answered, even if the participants knew that their answers were not correct. We thought this because humans are known to be social animals and they tend to adopt the attitudes of the majority. Ultimately our hypothesis was not correct. In total, three of out of 32 students showed full conformity behavior, meaning that they followed all three wrong answers given by the confederates. Therefore, of all participants, only 9% showed full conformist behavior. This incidence rate is much less than what would be expected for our hypothesis. The fact that no conformist behavior was shown could be explained by the happening that the participants did not personally know the confederates. Normative pressure is less when pressure comes from out-group members instead of in-group members, and students may have been less likely to feel peer pressure by strangers (18).

Since conformity is momentary, the variation in results depends on the era they were collected, and cross-cultural differences may influence conformity behavior (19), the outcomes we obtained may be different than those observed in other contexts. The Asch experiment conformist results had occurred in different replication studies; however, in one study the Asch experiment failed, leading the researchers to define the conformity behavior as an unstable, changing phenomenon (20). Most of the conformity experiments were conducted between the 1950s and 1960s in United States with males only. From that time until now, human behavior in society could have changed. The sociopolitical and cultural attitudes of males in United States during the performance of Asch experiment likely contributed to the occurrence of conformity behavior. An explanation of the relationship between the conformity outcomes of the Asch experiment and the sociopolitical and cultural aspects during that time can be the product of the McCarthy era (19). Even though no clear evidence between cultural conditions and conformity can be established, it was found that during a replication of the Asch experiment done in 1974, the level of conformity decreased in comparison with the Asch experiment done during the 1950s (19). The 1974 outcomes were related to the Vietnam era, in which activism and a questioning attitude increased in the United States (19). This culture of questioning could reduce conformity behavior on a population level.

A meta-analysis of US studies showed that conformity has declined since the 1950s (19). This same

study indicated that cultural differences in societies can account for differences in conformity behavior, although cultural differences do not always emerge in conformity differences and no clear correlation between cultural conditions and conformity can be statistically established (19). Nowadays, we can see more activist movements in favor of individual human rights, more riots against sociopolitical injustices, and an increasing number of questioning individuals. We suspect that these phenomena have caused conformity behaviors to decrease. The contemporary world of high school and college has significantly changed over the time. The outcomes failed to replicate the original results in Asch experiment and this can be attributed to students being more secure of themselves or their opinions today.

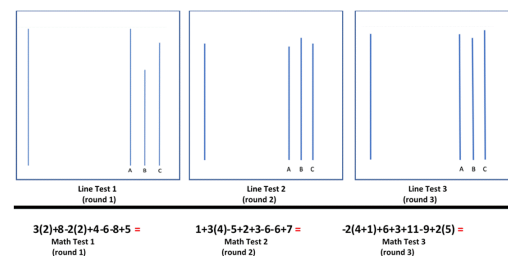
Gender, as expected, had no statistical effect on a conformist behavior. A reason why we did not find a correlation between conformity behavior and gender can be explained in a similar form. The female role in society has changed over time and women have gained more rights. Because conformity is related to time and age, nonconformity behavior in young women should be expected (17).

No difference in likelihood for conformist behavior was found for the type of test administered. The fact that students did not have a higher likelihood of conforming in a math vs line test was an unexpected result. Conformity behavior can have a higher occurrence rate depending on the ambiguity and difficulty of the task (6). While using an ambiguous and difficult test, individuals are influenced by the thoughts of those around them. However, in an unambiguous and clear situation, social influence decreases (21). We were expecting the math test to be more difficult than the line test because the line test is only visual whereas the math test requires computation. Nevertheless, the difference in conformity behavior from the line to the math test was not statistically significant. We could not identify a difference in conformist behavior due to the type of test. Most students did not follow others in the math test, and the percentage that got all the three correct answers was 34% for the math test and 41% for line tests. So, no difference in difficulty was observed for the line test compared to the math test, probably due to the increased difficulty for the line test from the last two cards. Also, it seems that although participants found both tests somewhat difficult, they were not influenced by confederates. This can also be explained by the lack of ambiguity in these tests. Nevertheless, in the Asch experiments (1), there was also no ambiguity in the line tests and the level of conformist behavior was up to 75%.

The findings show that the individual's tendency to conform has decreased since the experiment done by Asch. We therefore conclude that conformity is not as strongly present as it was in the 1950s and 1960s. The

nonconformity outcomes obtained in our experiment represent recent cultural changes, the contemporary world in which we live, and the representation of the modernity era through the emergence of individualism in teenagers. Further research on the topic should include the importance of in-group-out-group members, comparisons on more ambiguous situations, and comparisons between individuals of different ages, cultures, and eras. Also, a bigger sample would allow for more confidence about the results.

One limitation of this experiment is that although it was done in a controlled environment, it is still an artificial environment and it will not necessarily be an accurate representation of all real-life situations. An experiment testing conformity in situations involving social attitudes (altruism, prosocial behavior, ethics, human and animal rights, to mention some) instead of abilities (such as visual or math computation), which can be more ambiguous, should be done to gain more deep understanding about group influence.



**Figure 3: Sample Problems from Line and Math Tests.** Three cards were used for the line test during the first part and another three cards were used for the math test on the second part. The cards were shown one by one to subjects and confederates at the same time.

## Methods

Thirty-two volunteers from Tecnológico de Monterrey, Cuernavaca (16 female and 16 male students between 16-22 years old from high school and college) were randomly assigned to a group with four other confederate students who were not under study (five students in total). The groups were mixed gender, containing two male confederates and two female confederates (16-22 years old). Before starting the experiment, all of the confederates were informed of the situation and what answers they needed to give in each round. Two types of tests, a line test and a mathematical test, were used for evaluating conformity behavior in volunteers.

The line test was based on the Asch (1) Conformity Experiments. Three cards from the line test included several lines that differed in length (**Figure 3**). Three cards from the mathematics test included mathematical

operations (**Figure 3**) (2). The first and second part of the experiment consisted of three rounds per part (six rounds in total). Each volunteer performed part one (line test) and two (math test) consecutively on the same day.

The confederates sat on the chairs number one, two, three, and four and they let the participant sit on the last chair. Before the experiment started, all the inside participants were told that in the first part of the experiment they will test the perception on lengths of lines and on the second part they will test basic mathematical concepts. All the participants were given an evaluation sheet and a pen, so they could select the right answer from a three-multiple option answer sheet. Their task during the first three rounds consisted of looking at the line on the left and deciding which of the three lines on the right was equal to the left line in length (**Figure 3**).

After ten seconds passed the examiner hid the card with the line test. The participants needed to write and say their answers out loud. The order in which the participants said their answers aloud was according with the number of the chair that they sat on. The examiner then wrote down their answers as they said it.

During the first round, the confederates were asked to give the right answer. On the second and third round, all the confederates gave the same wrong answer. After the end of each round, the examiner did not tell the participants the correct answer and proceeded to the next round.

The second and third round were done the same way, except that this time it was a different card (**Figure 3**). When the three rounds were completed, the examiner collected the evaluation sheets.

The second part of the experiment consisted of solving a mathematical operation using subtractions, additions, and multiplications (**Figure 3**). All the participants were given an answer sheet and a pen so they could solve and select the correct answer from a three multiple answers sheet. During the three rounds, the confederates were asked to give the same wrong answer for each round. These incorrect answers only differed two or three units from the correct answer. After 20 seconds passed, the examiner hid the operation and told the participants to say their answers aloud. The order in which the participants said their answers aloud was the same as the first part of the experiment, answering first the confederates. The examiner wrote down their answers as they said it and did not tell the participants the correct answer. The second and third round were done the same way, except that this time it was a different operation (**Figure 3**). After the three rounds end, the examiner collected the answer sheets.

Scores from 0 to 3 were assigned to evaluate conformity level, where a score of 0 meant that none of the participant answers matched the wrong answers

given by the confederates, a score of 1 meant that one answer given by the participant followed one wrong answer given by the confederates, a score of 2 meant that two answers given by the participant followed two wrong answers given by the confederates, and a score of 3 meant that all three answers given by the participant followed all three wrong answers given by the confederates. The conformity score was obtained separately for the line test and for the math test. Also, the number of correct answers given for the line test and the math test were evaluated for each participant. The evaluator counted the number of correct answers for the three trials in each test (line and math), which could go from zero to three.

#### Statistical Analysis

The conformity behavior score and number of correct answers were analyzed using two-way ANOVA tests with replication, with one factor being gender and the other factor being type of test (line or math), with a significance level of  $\alpha=0.05$ , using the data analysis tool from Microsoft Office Excel (version 2016).

#### References

1. Asch SE. "Opinions and social pressure." *Scientific American* 193.5 (1955): 31-5. <http://kosmicki.com/102/Asch1955.pdf>.
2. Jeon HJ. "The environmental factor within Solomon Asch line test." *International Journal of Social Science and Humanity* 4.4 (2014): 264-8. <http://www.ijssh.org/papers/360-P00014.pdf>
3. Shulman, Ernest. *Conformity in a Modified Asch-Type Situation*. City University of New York, 1975.
4. Beck, Pearl. *The Limits of Individual Conformity: A Field Study*. City University of New York, 1983.
5. Wiener M. "Certainty of judgment as a variable in conformity behavior" *The Journal of Social Psychology* 48.2 (1958): 257-63.
6. Baron RS, Vandello JA, Brunzman B. "The forgotten variable in conformity research: Impact of task importance on social influence." *Journal of Personality and Social Psychology* 71.5 (1996): 915-27.
7. McGrath JE. "Small group research." *The American Behavioral Scientist* 21.5 (1978): 651-74.
8. Hare AP. "Group size." *The American Behavioral Scientist* 24.5 (1981) 695-708.
9. Hornsey MJ, Majkut L, Terry DJ, McKimmie BM. "On being loud and proud: Non-conformity and counter-conformity to group norms." *The British Journal of Social Psychology* 42 (2003), 319-35.
10. Morone A and Samanidou E. "A simple note on herd behaviour." *Journal of Evolutionary Economics* 18.5 (2008): 639-46.
11. Rook L. "An economic psychological approach to

- herd behavior." *Journal of Economic Issues* 40.1 (2006): 75-95.
12. Hyman, Helbert H and Eleanor Singer. *Readings in Reference Group Theory and Research*. New York: The Free Press, 1968.
  13. Bandura A. "Influence of models' reinforcement contingencies on the acquisition of imitative responses." *Journal of Personality and Social Psychology* 1.6 (1965): 589-95.
  14. Eagly AH and Carli LL. "Sex of researchers and sex-typed communications as determinants of sex differences in influenceability: A meta-analysis of social influence studies". *Psychological Bulletin* 90.1 (1981): 1-10.
  15. Eagly AH and Wood W. "Explaining sex differences in social behavior: a meta-analytic Perspective." *Personality and Social Psychology Bulletin*. 17.3 (1991): 306-15.
  16. Eagly AH, Wood W, Fishbaugh L. "Sex differences in conformity: surveillance by the group as a determinant of male nonconformity". *Journal of Personality and Social Psychology* 40 (1981): 384-94.
  17. Eagly AH and Chvala C. "Sex differences in conformity: status and gender role interpretations" *Psychology of Women Quarterly* 10.3 (1986): 203-20.
  18. Abrams D, Wetherell M, Cochrane S, Hogg MA, Turner JC. "Knowing what to think by knowing who you are: self-categorization and the nature of norm formation, conformity and group polarization". *British Journal of Social Psychology* 29.2 (1990): 97-119.
  19. Bond R and Smith PB. "Culture and conformity: A meta-analysis of studies using Asch's (1952b, 1956) line judgment task." *Psychological Bulletin* 119.1 (1996): 111-37.
  20. Lalancette MF and Standing LG. "Asch fails again." *Social Behavior & Personality: An International Journal* 18.1 (1990): 7-12.
  21. Mori K and Arai M. "No need to fake it: Reproduction of the Asch experiment without confederates." *Int Journal of Psychology* 45.5 (2010): 390-7.