

Majority and minority influence in teenagers for different social dilemmas

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SUMMARY

The influence of others on changing one's views is magnified when living in society since cooperation and identification within a social group is necessary for someone to feel accepted. In a previous study done in our high school two years ago, teenagers did not show conformist behavior in non-ambiguous situations (1). We wanted to evaluate conformity using social dilemmas to continue this previous research. We hypothesized that teenagers would follow others' influence—changing their initial opinion to belong to the group—particularly with increasing ambiguity of the dilemma. Forty-two high school students were tested by confronting them with three different social dilemmas. The initial position of the students after we presented the dilemmas was identified. Then, students were asked to discuss the dilemma out loud, expressing their initial opinions. Two “confederates” per group, who were previously asked in private to argue against the majority's opinion, voiced their contradictory opinion. Afterwards, students were asked again for their positions to see if their opinions had changed. We found variations in the proportions of students that changed their initial opinions depending on the dilemma. Furthermore, we found that both majority and minority influence could be responsible for changing the student's initial position. This change was dependent mainly on moral arguments given by the majority or minority and not by the size of the group. Therefore, we were unable to confirm our initial hypothesis that teenagers would show conformist behavior to feel part of a group, since conversion by minority influence, rather than conformity by majority influence, prevailed.

INTRODUCTION

For humans, being part of a group is important because it provides us identity, security, and structure, and satisfies our needs for affection, care, and belonging (2). Changing your opinion in support of the group's opinion is known as conformity behavior and occurs as a mechanism developed by individuals to feel part of a group (3).

There are two forms of social influence that affect individuals: majority influence and minority influence (4, 5). Causing minorities to conform is accomplished by majority influence while changing the majority to agree with minorities is recognized as minority influence (4). Majority influence is

responsible for conformity and public compliance, whereas minority influence results in conversion (5). In the social influence context, conversion refers to the process of changing your point of view to a different one that implies a true change in your opinion (6). Both majority and minority influence are important for society. Majority influence allows morals, religion, or legality within social norms to regulate and harmonize the coexistence of people in a certain society; there are even essential standards almost universal in all cultures to support peaceful life (7). Nevertheless, minority influence is also important as a form of social change, since it usually involves a personal shift in opinion and is often viewed as a more creative form of social change (4).

Changing individual points of view to a majority position is due to two assumptions: the first is that majority judgment gives information about reality and therefore are probably correct. The second, that individuals want to be accepted and avoid disapproval (3). But exposure to minority viewpoints makes individuals consider different perspectives and encourages flexible thinking (8). Minority influence can cause a conversion of individual points of view by two reasons: the first is the consistency of judgments by a minority showing a clear view of reality, and the second is by an unwillingness to yield or compromise concerning the position (9).

Another important factor that can influence individuals to change their position is the degree of security or certainty an individual has on its answers. The more difficult the task or the more ambiguous the stimulus, individuals are more likely to look to others as sources of information regarding appropriate courses of action and show conformist behavior (10). Experiments in social psychology have shown that most participants changed their opinions when faced with opposing opinions in a greater number or when faced with hierarchy or authority, even in cases without arguments that endorsed those different opinions (3).

A study that investigated the different contributors for majority or minority influence found that the differences between majority and minority influence are not only due to group size and prevailing opinions of the majority, but also needed to consider the context and exposure to minority views (11). When people attend to more aspects of a situation, they reexamine and can take better decisions and minority views, therefore, raise greater thought about the issue (11).

In a previous study done in our high school two years ago, teenagers did not show conformist behavior in non-ambiguous situations (1). In this cited study, teenagers were

presented with the Solomon Asch visual test and a simple math test; these tests were done with the help of actors known as confederates, representing majority influence, that were asked to say the wrong answer out loud before the participant gave their answer. It was expected that teenagers changed their minds due to confederates' influence but this was not observed, and teenagers kept their answers (1). The authors indicated that one possibility for observing non-conformity was that the situations tested were no-ambiguous so majority influence was less likely to change individuals' answers (1). As a follow-up of this study, we wanted to evaluate conformity in social situations rather than non-ambiguous tests.

To evaluate majority and minority influence on changing individual opinions in different complex social dilemmas, this research asked whether teenagers would follow others' influence to belong to a group and whether they would change their initial opinions in a social situation, particularly when social dilemmas became more ambiguous. The results indicated that changing individuals' opinions depended not only on the controversy degree of the social dilemma but also on moral arguments presented by majority and minority influences rather than the size of the group.

RESULTS

To evaluate majority and minority influence on teenagers' judgment in social dilemmas of different complexity, high school students were confronted with three social dilemmas with different social reasoning complexity. After confronting them with the situations they had to show their opinion. When discussing it out loud in the group, two pre-selected confederates voiced their opinion against the majority. The students could change or stay with their decision for each social dilemma.

The first dilemma was presented in the form of a short video that showed a family who shows discrimination against a man of different ethnicity while waiting on a bench in a clinic (12). The second dilemma presented was also shown in a short video in which a policewoman was risking her own life to save a young man trying to commit suicide (13). The third dilemma presented was a hypothetical description in which the students witnessed a bank robbery by a man and later found out that all the money stolen was donated to an orphanage (14).

The initial positions for all of the presented social dilemmas showed a higher percentage of students being against the presented conflicts (Table 1).

We argue that the more similar the percentages of the two opposite positions (in favor or against), the more ambiguity or controversy the social dilemma held for the students. The testing order was first the discrimination dilemma, second the stop suicide dilemma, and third the bank robbery dilemma. The order of controversy, from less to more controversial, using the difference in proportions between in favor or against in each dilemma was first the discrimination dilemma, second

the bank robbery dilemma, and third the stop suicide dilemma (Table 1).

Social dilemma	% initial in favor	% initial against	Testing order	Controversy degree
Discriminate	14	86	1st	Less
Stop suicide	36	64	2nd	Medium-High
Report robbery	21	79	3rd	Medium

Table 1: Initial position, testing order and degree of controversy for the different social dilemmas. The initial positions for the presented social dilemmas showed a higher percentage of opinions going against by the students. The order in which social dilemmas were presented to students was: first, the discrimination case, second, the stop a suicide attempt, and third, the report a bank robbery. The order of controversy of dilemmas, from less to more controversial was: first the discrimination dilemma, second the bank robbery dilemma, and third the stop suicide dilemma.

The change in initial position due to majority influence or minority influence after confederates voiced their arguments depended on the social dilemma (Table 2).

	Initial position	Not change position	Change by majority from in favor to go against	Change by minority from in favor to go against
Dilemma 1: Should a family discriminate against appearance?				
Against	36	32	-	4
In Favor	6	1	5	-
Dilemma 2: Should a policeman stop a suicide attempt?				
Against	27	18	-	9
In Favor	15	13	2	-
Dilemma 3: Should you report a bank robbery even if the money goes to an orphanage?				
Against	33	7	-	26
In Favor	9	7	2	-

Table 2: Initial position and change in position for the different social dilemmas according to majority or minority influence. The change in the initial position depended on the social dilemma. The discrimination dilemma had fewer students changing their initial position, and the change in opinion was almost the same due to majority or minority influence. For the suicide dilemma, the proportion of students changing their opinion showed some increase, and most of the changes in opinion were due to minority influence. The bank robbery dilemma presented the higher proportion of students changing their initial position, most students changed their initial position from being against to go in favor of reporting the robbery, persuaded by minority influence.

For the discrimination dilemma, 21% of students changed their initial position, and the influence in changing students' own opinions was almost the same by majority (5 persons changed) or minority groups (4 persons changed). For the suicide dilemma the proportion of students changing their

own opinion increased to 26%, but most of the changes in opinion were by minority influence (9 persons changed) that convinced students to go in favor of stopping a suicide; the majority influence to go against stopping the suicide was much less (only 2 persons changed). For the bank robbery dilemma, 67% of students changed their initial position from being against reporting the robbery to go in favor of reporting the robbery. In this case, almost all students who changed their initial position (26 out of 28) were persuaded by the confederates' minority and not by the majority opinion.

More students kept their initial opinion for the least controversial issue (discrimination) and the influence by majority or minority was almost the same (Figure 1). But more students changed their initial opinion for the more controversial issues (suicide and bank robbery). Minority influence was more important for changing students' initial opinions for the bank robbery dilemma than for the suicide dilemma (Figure 1). Changing or not initial opinion and changing their opinion by majority or minority is dependent on the social dilemma presented, ($p < 0.0001$, chi-squared test; Figure 1). Of the 42 high school students participating in this experiment, 10 never changed their initial opinion and were not influenced by others (24%) and only 1 student changed his initial opinion all 3 times, going with the minority influence for all 3 dilemmas (Tables 1–2).

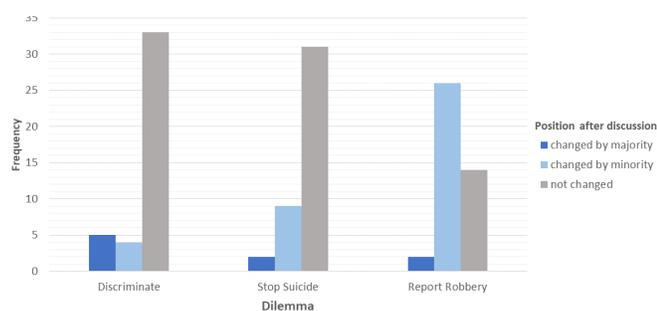


Figure 1: Change in position for each dilemma after discussion, as influenced by majority or minority (confederates). The less controversial discrimination dilemma showed the lower proportion of opinions being changed by social influence; as the dilemma became more complex for the bank robbery and the suicide dilemma, fewer students kept their initial position and this change in opinion was dependent on the moral arguments presented by minority or majority influence and not the size of the group (chi-square test, $p < 0.0001$).

DISCUSSION

This research was done as a follow up of the research done in the same high school two years ago, where teenagers did not show conformist behavior in non-ambiguous situations (1). In this cited study, using visual line tests and simple math tests, students were expected to change their initial answer by majority influence, but only 9% of teenagers showed conformist behavior, changing their initial answers for both tests (1). Authors argued that this change in expected behavior could be due to several factors, including cultural changes, group identification, and more individualism

observed in teenagers in present societies, but also that the tests used were non-ambiguous and presented no dilemmas, therefore adolescents did not display conformist behavior (1). The authors suggested continuing this study using more ambiguous situations for testing social influence (1). Therefore, we wanted to evaluate conformist behavior as well as minority influence in more complex social situations as a follow-up research.

Our first expectation was that more students would change their initial position as the complexity of the dilemma increased. This was based on the fact that the identity of an individual is formed by all personal values and group values, including religion or moral standards that mark the type of decisions that an individual has (15). Since all students who participated were teenagers, we thought they did not have a strong criterion established to defend their opinions in a discussion and therefore would be influenced to change their initial position, but this was not always the case. Many students kept their initial opinion on the discrimination and suicide dilemmas but most of them changed their opinion in the bank robbery dilemma (Figure 1).

During the discussions after the cases were presented, it was interesting to witness the social phenomenon that appeared in the groups. We could see how people felt insecure and rejected from their ideas to the point of changing position for what they considered better and stronger arguments, mainly presented by the confederates that represented the minority influence. The conversion produced by a minority implies a real change of judgments or opinions (6) rather than compliance.

The proportion of students that changed their initial position varied with the complexity of the dilemma (Tables 1–2). Nevertheless, this change cannot be attributed only to conformist behavior due to majority influence or to increased ambiguity of the dilemma. A possible better explanation is that the change in opinion in more complex dilemmas was a consequence of minority influence due to conversion (5).

In the discrimination situation with low complexity (Table 1), only 21% of students changed their original position; of the students who changed their initial opinion, half did so by majority influence and half by minority influence (Table 2). In this scenario, it was harder for the confederates representing the minority to present valid arguments to convince students to accept discrimination, since there was very little ambiguity in this social situation, but some students were still influenced by the unexpected arguments of the confederates (for example, family was protecting the child from contagious diseases since they were in a clinic). For students that changed their initial position for being in favor of discrimination to being against discrimination, they did it by majority influence (comments included the realization by others that discrimination is never right, and there is no justification to discriminate based on appearance), thus showing conformist behavior. The video about discrimination had a low level of contradiction, as it was almost obvious to predict the posture participants would take;

the proportion of students that changed their opinion was much lower than the proportion of students that maintained their own judgment (**Figure 1, Table 2**).

The most controversial situation was the suicide dilemma (**Table 1**). Of all students, 26% changed their initial position, and most of them changed it from being against stopping the suicide to being in favor of stopping the suicide, influenced by the minority (**Table 2**). The difference in the amount of behavior guided by majority influence is related to the size of the social group: the larger the group of one opinion, the greater conformity is observed (16). Nevertheless, in this case, the difference in group size between the majority group and the minority group was less than for the other dilemmas (**Table 2**) making it more difficult to expect majority influence. Also, the complexity of the problem influences the change in position: the greater the difficulty in the task, the greater the conformists' behavior (17). However, this was not the case in this research, and minority influence by conversion prevailed over majority influence by conformity. This change in opinion favoring stopping suicide by minority influence can be explained by arguments presented by the minority that had higher moral values, indicating that it is more ethical to save a life than to ignore the situation, and that suicide is a complex issue. Thus, even when the majority was against stopping the suicide initially, the arguments of the majority were not enough to cause conformist behavior, and minority influence prevailed for students that changed their initial opinion.

Initially, 64% of students believed that suicide is an individual decision and should not be stopped by others, but after the discussion, only 45% of students kept this opinion. This initial thinking could also indicate the prevalence of individualism and the increasing absence of fellowship and solidarity in young generations (18).

The bank robbery dilemma, with a medium complexity level (**Table 1**), was the one that presented the highest proportion in opinion change (67%), with an overwhelming majority of students changing their initial position by minority influence. This indicates conversion of opinions when the minority, supported by confederates, presented stronger arguments compared to the arguments of the initial majority. Four major factors that give the minority its power: being consistent in expressing the minority opinion, being confident about the correctness of the views presented, being unbiased and reasonable when presenting ideas, and resisting the social pressure of the majority to change the minority views (6). The initial position of the majority of high school students being against reporting the bank robbery (**Table 2**) could be explained by a position of teenager rebellion against authority and societal norms, which in some degree is expected during adolescence (19), even more, if this rebellion is with a cause that seems fair. The change in opinion in the bank robbery dilemma from not reporting it to reporting it was mainly influenced by minority confederates (**Figure 1**) convincing students with stronger moral arguments and presenting a different point of view not seen initially by the students (the

end does not justify the means, money in the bank does not belong to the bank but belongs to other people, and so on). Also, confederates representing the minority were very effective in presenting their opposite points of view and were unwilling to change their position, thus increasing the odds of influencing students.

Although teenagers were influenced to change their initial opinions, and the proportion of change varied depending on the different dilemmas presented, most of the changes were due to minority influence rather than majority influence. Therefore, we were unable to confirm our initial hypothesis that conformist behavior will prevail in teenagers when presenting with ambiguous social dilemmas. When teenagers changed their initial position, it was mainly by conversion when presented with different points of view and not by conformity to feel part of a group. All high school students knew each other, so maybe they were not intimidated by the group size, and therefore conformity was not a determinant, because students already felt secure about belonging to the high school group. For future research, we suggest comparing different generations to evaluate if majority and minority influence changes according to age, assessing majority and minority influence with persons that do not know each other, comparing if there are gender differences, and evaluating if individualism and rebelliousness in teenagers play an important role in initial points of view for different social dilemmas.

MATERIALS AND METHODS

We evaluated the influence of majority and minority on individual judgment in three social dilemmas. A total of 42 volunteer students (both genders) from 15–19 years old from Tecnológico de Monterrey high school Campus Cuernavaca, Mexico, were chosen randomly to participate in a psychological experiment in reason judgment. The 42 students were divided into 3 groups of 14 students. In each group, there were additionally two “confederates” (also high school students) integrated, who acted as a minority and who were previously instructed to take an opposite posture to the majority posture in each statement; the 14 students did not know the position of the 2 confederates. These two persons were not included in the analyzed data. We informed all student volunteers that they would receive individual formats in which they should anonymously write their answers for the experiment. Three situations of controversial social issues that went from a basic reasoning level (almost obvious answers) to a more complex one, were shown to the sixteen students, fourteen subjects and two confederates, with two rounds of questions for each one. The first dilemma was shown in a two-minute video where a family showed discrimination against a man of different ethnicity while waiting on a bench of a clinic (12) and the students needed to decide if they were in favor or against the family's attitude. The second dilemma presented was a two-minute video in which a policewoman risked her

own life to save a young man trying to commit suicide (13), and the students needed to decide if they were in favor or against stopping the suicide. The third dilemma presented was a hypothetical description presented in text form: "We are witnesses of how a man robs a bank. However, we observe that the thief does not keep the money, but instead gives it to an orphanage that lacks the resources to support the orphans who live in it. We can report the robbery, but if we do, it is likely that the money that the orphanage can now use to feed and care for the children must be returned." The students needed to decide if they were in favor or against reporting the robbery (14).

After each social dilemma was presented to the students, we paused to ask students if they were in favor or against the social dilemma presented. Then, each participant filled out an individual form with an honest and personal judgment. After the 14 participants finished with the first part of the experiment, we asked the students to discuss out loud for 3 minutes their opinions of the social situation. The participants' posture was announced, and the two confederates adopted an opposite posture to the group to affect the position of the majority of the students. Then all students debated for another 2–3 minutes and we asked the students to write their position again, in the anonymous format, and explain why they did or did not change their initial position in an open question. We conducted the same process for all three dilemmas. At last, the answers were collected and analyzed.

The data were analyzed using chi-square test of independence, with a significance level of 0.05 and the chi-square test function from Microsoft Office Excel, 2016.

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REFERENCES

1. Pereda-Juárez, Alejandra Georgina, Sofia Ayerdi, and María Elena Cano-Ruiz. "The Tendency of Teenagers to be Conformists and Follow the Crowd." *Journal of Emerging Investigators*, 2017, pp. 1-6, www.emerginginvestigators.org/articles/the-tendency-of-teenagers-to-be-conformists-and-follow-the-crowd.
2. Robbins, Stephen. *Comportamiento Organizacional*. 8th ed. Prentice Hall, Mexico, 1999.
3. Asch, Solomon E. "Opinions and Social Pressure." *Scientific American*, vol. 193, no. 5, 1955, pp. 31–35, doi:10.1038/scientificamerican1155-31.
4. Gardikiotis, Antonis. "Minority influence." *Social and Personality Psychology Compass*, vol. 5, no. 9. 2011, pp. 679–693, doi: 10.1111/j.1751-9004.2011.00377.x.
5. Sampson, Edward. *Social worlds, personal lives: An introduction to social psychology*. 6th Ed. Harcourt Brace Jovanovich, 1991.
6. Moscovici, Serge. "Toward A Theory of Conversion Behavior." *Advances in Experimental Social Psychology*, vol.13, 1980, pp. 209-239, doi:10.1016/S0065-2601(08)60133-1.
7. Krueger, Joachim I. and David C. Funder. "Towards a balanced social psychology: Causes, Consequences, and cures for the problem-seeking approach to social behavior and cognition." *Behavioral and Brain Sciences*, vol. 27, no.3, 2004, pp. 313-327, doi:10.1017/S0140525X04000081.
8. Peterson, Randall S. and Charlan J. Nemeth. "Focus Versus Flexibility Majority and Minority Influence Can Both Improve Performance." *Personality and Social Psychology Bulletin*, vol. 22, no.1, 1996, pp. 14–23, doi:10.1177/0146167296221002.
9. Moscovici, Serge and Bernard Personnaz. "Studies in social influence: V. Minority influence and conversion behavior in a perceptual task." *Journal of Experimental Social Psychology*, vol.16, no. 3, 1980, pp. 270-282, doi:10.1016/0022-1031(80)90070-0.
10. Myers, David G. "The Social Animal." *Rethinking Human Nature: A Multidisciplinary Approach*, edited by Malcom Jeeves, William B. Eerdmans Publishing Company, 2011, pp. 206-223.
11. Nemeth, Charlan J. "Differential contributions of majority and minority influence." *Psychological Review*, vol. 93, no.1,1986, pp. 23-32, doi:10.1037/0033-295X.93.1.23.
12. "Cortometraje sobre la Discriminación." *YouTube*, uploaded by Psico Psicología, 5 Sept 2014, www.youtube.com/watch?v=wKbVvYHi5DM.
13. "Momento en el que un policía arriesga su vida para evitar un suicidio en salto del Tequendama." *YouTube*, uploaded by HSB Noticias, 5 June 2018, www.youtube.com/watch?v=WTrgItAGaY.
14. Castellero, Oscar. "Dilemas éticos: qué son, tipos y 4 ejemplos que te harán pensar", 2010. *Psicología y Mente*, www.psicologiymente.com/psicologia/dilemas-eticos.
15. Pincus, Melanie, Lisa LaViers, Michael J. Prietula, and Gregory Berns. "The conforming brain and deontological resolve." *PLoS One*, vol. 9, no. 8, 2014, e106061, doi:10.1371/journal.pone.0106061.
16. McGrath, Joseph E. "Small group research." *The American Behavioral Scientist*, vol. 21, no.5, 1978, pp. 651-674, doi:10.1177/000276427802100503.
17. Baron, Robert S., Joseph A. Vandello, and Bethany Brunzman. "The forgotten variable in conformity research: Impact of task importance on social influence." *Journal of Personality and Social Psychology*, vol. 71, no. 5, 1996, pp. 915-27, doi:10.1037/0022-3514.71.5.915.
18. Douthat, Ross. "The Age of Individualism". *The New York Times*. March 15, 2014. www.nytimes.com/2014/03/16/opinion/sunday/douthat-the-age-of-individualism.html.
19. Schwartz, Gary and Don Merten. "The Language of Adolescence: An Anthropological Approach to the Youth Culture." *American Journal of Sociology*, vol. 72, no. 5, 1967, pp. 453–468. JSTOR, www.jstor.org/stable/2775672.

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