

The Influence of Confidence Levels on the Opinions of High School Students After Exposure to Authoritative Figures

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Abstract

It is widely known that one's peers can pose some form of influence on the way one thinks, acts, and speaks; however, it is often difficult to effectively show this influence. There are an infinite number of factors that may contribute to people's abilities to influence those around them, but one of the lesser studied factors is their confidence levels. Although the various methods of studying confidence levels are fairly well covered, there is generally still a lack of information on adolescents. High school students are arguably more susceptible to influence on their opinions and beliefs than adults (the subject of most research experiments and studies currently in the field) due to the large role that peers, teachers, parents, news, and media play in shaping the world around them. High school is a time when students are discovering their interests and attempting to find where they fit into society in terms of beliefs, passions, and roles. It is also a time where their confidence and emotions are fairly flexible and far more prone to change than those of adults. These characteristics may also make them unaware of the influences that peers pose. With the constant input and influences directed toward high schoolers today, it is especially important to research more about how those who exude an apparent level of authority are able to directly or indirectly shape the way high schoolers think and will think as they enter adulthood.

Keywords: opinion formation, authority, confidence level

Introduction

Although the concept of how opinions are formed has been thoroughly researched, there is still a lack of research assessing how social influence affects the opinion formation of a group, particularly for adolescents. The present study sought to address this gap in knowledge.

Effect of Authoritative Figures

Several studies have examined the role that authoritative figures and confidence levels play in one's opinion formation and changes of opinion (Dyer, 2008; Grzyb, Dolinski, Trojanowski, & Bar-Tal, 2017; Moussaïd, Kämmer, Analytis, &

Neth, 2013; Reicher, 2008; Prettejohn, Berryman, & McDonnell, 2013).

This research has demonstrated that authoritative and confident figures can have a profound effect on one's opinions. Studies of group dynamics show that a confident figure can influence the opinions of less confident and "uninformed" individuals (Dyer 2008). The confident individuals in Dyer's experiment were similar to the "authoritative" figures in other experiments, such as the classic Milgram studies. Dyer studied the response that individuals may have to authoritative figures or authoritative commands, as well the influence of other factors like gender and the participants' need for closure.

Grzyb et al.'s 2017 virtual-reality experiment attempted to illuminate the causes of one's obedience towards a source of authority. This experiment consisted of multiple studies that tested how submissive and authoritative figures affect one's tendency to contradict their own morals (Grzyb, Dolinski, Trojanowski, & Bar-Tal, 2017). This experiment showed that authoritative figures can have an influence on the behavior and actions of more "submissive" individuals.

Effect of Crowds

Past research has also evaluated how being in a crowd can influence an individual's behavior. Reicher from the School of Psychology at the University of St. Andrews studied how an individual in a crowd fits into a dynamic society of social influences, stereotypes, and polarization. He explored a variety of past models used to study crowd dynamics, such as the Emergent Norm Theory, which states that crowd behavior is directed by specific "social norms" established by individuals in the crowd. He also examined more classical models like Le Bon's theory, which states that being a part of a crowd takes away an individual's sense of responsibility and sense of self but may also increase their perceived power with strength in numbers (Reicher, 2008).

Personal Confidence and Social Influence

Understanding how people's opinions are initially formed is crucial to understanding how they can be influenced. Dr. Mehdi Moussaïd and his team conducted a series of experiments in order to better understand personal confidence and social influence. In this study, a social influence was defined as "the process by which individuals adapt their opinion, revise their beliefs, or change their behavior as a result of social interactions with other people." Based on their observational model, there are two predominant factors that influence the formation of opinions: the Expert Effect (influence caused by the presence of a highly confident individual in a group) and the Majority Effect (the influence caused by large numbers of individuals sharing similar opinions). Moussaïd specifically notes that a better understanding in this area of research could explain how low-

confidence individuals may be overpowered by more authoritative individuals in a public setting and describes how a "small opinionated minority challenges a large population of uninformed individuals" (Moussaïd, Kämmer, Analytis, & Neth, 2013).

Other observational models demonstrate that an authoritative figure can produce either a convergence in one's opinion or simply a change in one's opinion. Through measuring "perceived authority disparity" between individuals in a social network, researchers were able to rank participants' level of authority and use that information to see how authority affects the change in opinion of others (Prettejohn, Berryman, & McDonnell, 2013). Similarly, Chacoma's 2013 study created models surrounding theories of collective behaviors and the convergence of opinions. These models revealed that changes in opinion are strongly related to one's confidence levels, a reappearing theme in this field of research (Chacoma & Zanette, 2015).

Hypotheses

The purpose of this study was to gain a better understanding of how a high school student's confidence levels affect his or her susceptibility to changing his or her initial opinions after exposure to the opinions of an authoritative figure. Two hypotheses were studied in this experiment: (I) adolescents are not fully aware of the influences of the opinions of authoritative figures on the adolescents' initial opinions and (II) adolescents with lower confidence levels will be more susceptible to changing their initial opinions after exposure to the opinions of the authority figure.

Method

After consenting to take part in the experiment, participants were first asked to complete a personality test designed to measure their confidence level as well as a survey to gauge their opinions on controversial issues, such as the necessity of standardized testing. Participants were then presented with a video in which an authoritative figure offered an atypical viewpoint on the issues the participant was asked about. They

were then asked to complete the same survey they were provided prior to watching the video.

Participants

This experiment was conducted on three separate occasions between June and September of 2018 in an outside of school session. The multiple meeting times were used to accommodate the availability of participants and access to a computer lab when classes were not in session. The targeted population was the students of Jericho High School (grades 9-12), a high school on Long Island, New York. The participants in this study consisted of 37 Jericho High School students. Participants were recruited as volunteers from various social studies classes as these classes tend to contain the most diverse combination of students. Participants were unaware of the exact purpose of the study but were provided with a debriefing at the conclusion of the study to disclaim that the opinions stated by the authoritative figure were not necessarily his own, but largely scripted for the sake of the experiment.

Pre-Video Assessment

The experiment consisted of three phases: the pre-video assessment, the video, and the post-video assessment. All phases were anonymous to protect participants' privacy. The pre-video assessment consisted of two parts: a survey and a personality test.

The personality test was later translated into a scale measuring their initial confidence levels. The confidence levels of participants were then categorized into three groups: Confident, Neutral, or Unconfident. The items and scale for the personality test were all provided by the HEXACO Personality Inventory, as shown in Appendix A (Lee & Ashton, n.d.). Although the original HEXACO Personality Inventory items were not intended to measure a participant's confidence; however, specific items relating to confidence (such as the traits "Agreeableness", "Flexibility", "Social Self-Esteem", "Social Boldness", and "Modesty") were selected and used in the experiment as a measure of confidence level. HEXACO indicated that an average of all a

participant's responses should be taken in order to reach the participants' personality index. A participants' index corresponded to the confidence group that they were assigned. Each personality test item (e.g. "People sometimes tell me that I'm too stubborn") was assessed using a 5-point Likert Type Scale where "1" corresponded with "Strongly Disagree" and "5" corresponded with "Strongly Agree."

The survey portion of the pre-video assessment contained questions regarding three topics: university, the ability of felons to vote, and the necessity of standardized tests (Appendix B). These three topics were selected as they are both controversial and well-known topics that participants in this particular population would likely have strong opinions on (college and standardized testing) and an item that students likely had fewer personal connections to (felons).

These questions were then followed by supplemental questions. These questions attempted to gauge the reasoning behind the participants' opinions on the three topics while allowing for the pinpointing of the topic areas that the participants' opinions had changed in. Though, it is important to note that the participants' opinions did not always change. Some of these supplemental questions also referenced certain points that the authoritative figure brought up later in the "video" phase of the study. All of the survey questions were presented in a multiple-choice format with the option of providing an "other" answer (for which participants manually typed their response). The personality test and the opinion questions were completed on an online Google Form.

The conclusion of the pre-video assessment portion of the experiment was indicated by a large red "stop" symbol to ensure that participants did not advance to the post-video assessment without viewing the video portion of the experiment. After the "stop" symbol was visible on all participants' screens, the authoritative figure was introduced. The role of the authority figure in this experiment was to provide diverse and alternative viewpoints to the three topics which the participants had responded to in the survey. From this, I was able to measure whether the authoritative figure had influenced the initial opinions of the participants.

Since there was a possibility that a participant's initial opinion matched that presented by the authoritative figure (thus, automatically resulting in no change in opinion), it was important to include three different topics for participants to opine upon. Because the participants were limited to Jericho High School students, the experiment utilized a teacher within the school that is widely known and respected. During the experiment, the teacher was purposely introduced in a way that would increase his apparent authority levels: as a familiar, knowledgeable, and well-respected history teacher of 3 Advanced Placement courses. The video was then presented to the participants.

Experimental Stimulus

The experimental stimulus was a video filmed prior to the experiment. The authoritative figure was given prewritten prompts and a loose script to elaborate on for the video. The opinions depicted in the loose script largely reflected the opposite of the initial opinions of an average student (ex: the teacher largely advocated for more standardized tests, the benefits of attending lower-level colleges, and the right for felons to vote). It is important to note that the authoritative figure did not just provide a yes or no answer to each of the prompts: he spoke for an average of 2 to 2.5 minutes, elaborating on a wide variety of perspectives and details. Much of what was discussed in the video could be found in the supplemental questions in the surveys. Using a video as my experimental stimulus standardized the acts of the authoritative figure throughout the multiple days of experimenting.

Post Video Assessment

After the video was played, the participants continued in the Google Forms survey. This post-video assessment of the experiment asked the same questions as the initial opinions survey in the pre-video assessment (Appendix C). The purpose of this portion of the experiment was to measure where a participant's opinions may have differed from their initial ones. At the very end of this survey, participants were asked to self-report

whether their opinions changed or not. If they responded "yes", they were asked to state their reasoning in a multiple-choice question with an "other" option.

Data Analysis

The survey responses were transferred onto an Excel sheet. For the personality test, the responses were numbered 1 through 5. The HEXACO scale was then used to determine what could be considered the answers of a confident (or unconfident) individual. An answer choice of "5" would equate to the highest confidence while an answer choice of a "1" would equate to lowest confidence. Certain items were reverse scored to allow for consistency in the scale.

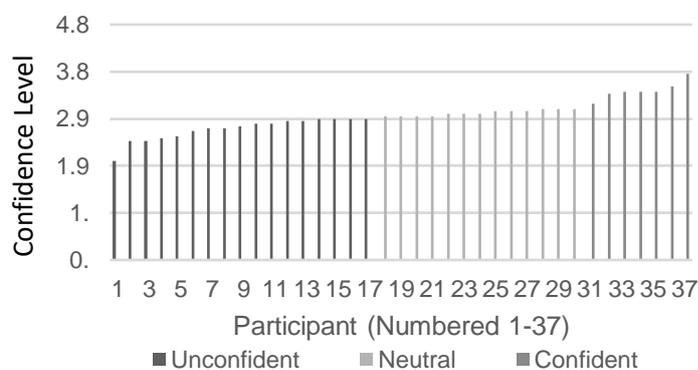


Figure 1. Participant Confidence Levels

A new scale was then created to transfer the participant responses to a level of confidence, as shown in Figure 1. According to natural breaks in the Likert Scale averages (1, strongly disagree to 5, strongly agree) that represented a participant's confidence level, three confidence groups were determined: Unconfident (Likert average of 2.15 to 2.85), Neutral (Likert average of 2.9 to 3.05), and Confident (Likert average of 3.15 to 3.75).

The responses regarding the three topics were not translated into a number scale since their principal purpose was to indicate where an individual may have differed in their initial and final opinions, and to address Hypothesis I by comparing/contrasting each participants' responses

to the pre- and post-video assessment supplemental questions. This data allowed for the calculation of actual change compared to the self-reported change by indicating each time there was a change in an individual's pre- and post-video assessment responses. Next, participants with actual changes were compared to those who had self-reported a change in opinion. This data was also used to create Figure 2, which shows the percent change in opinion per topic, per confidence group. All figures are in terms of percent because each confidence group had a varying number of participants.

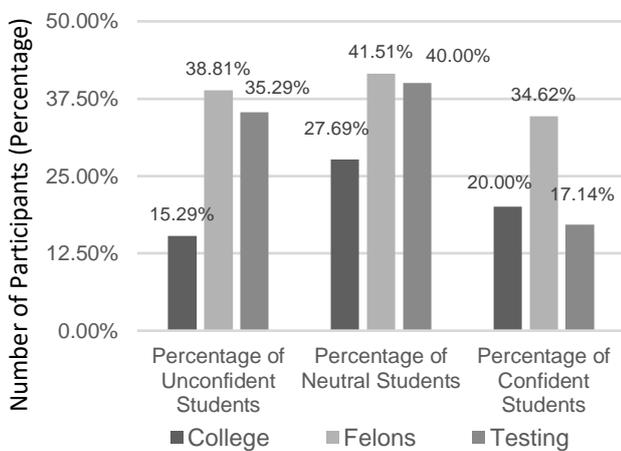


Figure 2: Actual Change in Opinion: Topic Specific

Results

Hypothesis I: Adolescents are not fully aware of the influences of the opinions of authoritative figures on the adolescents' initial opinions.

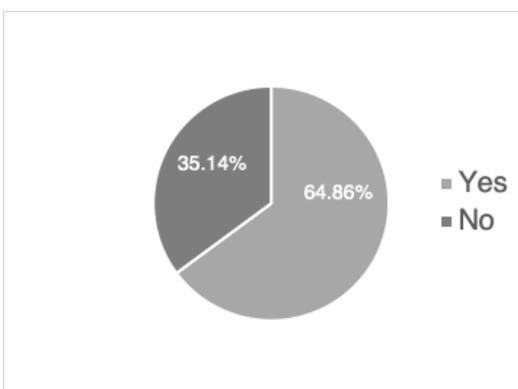


Figure 3: Self-Reported Overall Change of Opinion

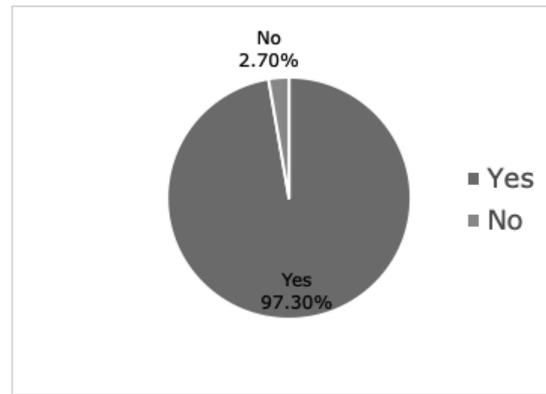


Figure 4: Actual Overall Change of Opinion

According to the post-video assessment survey, 64.86% of participants answered “yes” to “Has your original opinion changed after hearing the speaker’s opinions?” as shown in Figure 3. However, upon further analysis of the data, it was found that the actual value of participants who had changed their opinions in some way was 97.30%, as shown in Figure 4. This value was calculated by examining the data and comparing the “Reasons for Opinion” for each participant from the pre-video assessment and the post-video assessment responses, and then counting each time the response from the pre-video assessment varied from the post-video assessment for the same individual.

This 97.30% included all participants except one: the most “confident” individual. This participant had a confidence level of 3.75 and is considered a slightly extreme data point as the next most confident individual averaged a confidence level of 3.5. This most-confident participant also accurately self-reported his/her lack of change in opinion. The least confident individual was also a slightly extreme data point, having a confidence level of 2.15 with the next least confident individual averaging a 2.45. The least confident individual did, however, change his/her opinion through-out the study. These large discrepancies found in Figures 3 and 4 support Hypothesis I of this study.

There were also findings regarding students’ self-reported reasons for change in each of the three confidence groups. The most reported

reason for change in all three confidence groups was “The teacher brought up new information/ideas I had not originally considered”. Surprisingly, the group that most reported “I was not confident in my initial answer” was the confident group. This data can be found in Figure 5.

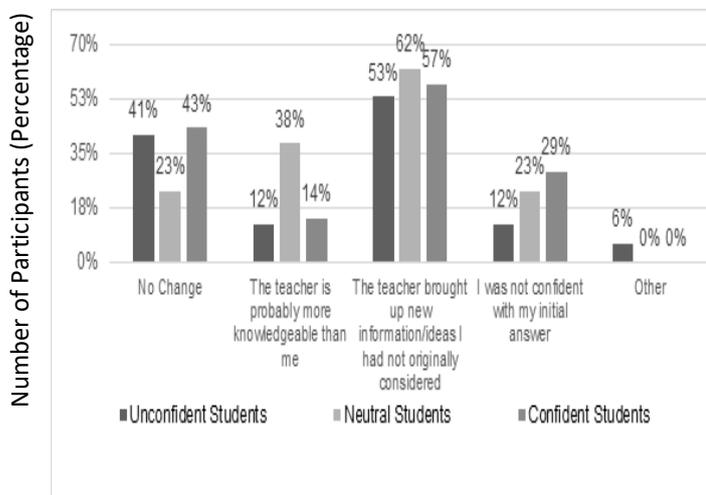


Figure 5: Self-Reported Reason for Change in Opinion

Hypothesis II: Adolescents with lower confidence levels will be more susceptible to changing their initial opinions after exposure to the opinions of the authority figure

The percent change in opinion was found on a more topic-specific level in Figure 2. It was found that the students in all three confidence groups changed their opinion the most on whether felons should have the right to vote, followed by standardized tests, then college. The confidence group that displayed the greatest percent change in opinion was the Neutral Confidence group.

Discussion

Awareness of Influence

The findings from this experiment may suggest that high school students are fairly susceptible to changing their opinions after exposure to the opinions of an authoritative figure. The data from Figures 3 and 4 suggests a disparity of 32.44% between the participants who had self-reported a change in opinion and those who

changed opinions but failed to report the change. This could suggest that some students are unaware of the influence that their peers, especially those that pose as an authoritative figure such as teachers or even parents, may have on them.

Confidence Levels

It is important to note that the high level of change (97.30%) may not be an effective representation of all high school students, as the study was limited to students at Jericho High School. The high school students in this study may be increasingly susceptible to influence since the study was conducted in a classroom setting with a teacher, especially because it mimics a typical classroom environment in which students are used to accepting what the teacher has to say without much question. This may also suggest that the change in opinions noted in this study may not be influenced by a student's confidence level, especially since none of the students possessed confidence levels of extreme values near 1 (unconfident) or 5 (confident). The confidence levels among the participants of this present study range from a value of 2 to 3.75, with the average being 2.91. This may suggest that none of the participants possessed confidence levels that were distinct enough to be able to show the actual effects of an authoritative figure on students of varying confidence levels, as most of the students hovered near the neutral value of “3” on the 1 to 5 Likert Scale used in the personality test.

This may be better studied in the future with a larger study sample. As a group, teenagers also tend to be at an age when they are still attempting to understand where their own beliefs lie in the spectrum of their environments, and how their ideas fit in with those of their peers. This could also be a suggestion as to why such a large percentage of the participants changed their opinions in some way. This may also explain why Hypothesis II of this study was not confirmed: there was not a major difference in confidence levels between the unconfident and neutral confidence groups, which may suggest that members of the neutral category could easily be considered unconfident, and vice versa.

Figures 3 and 4 bring up some interesting points to consider. The one participant that did not change his/her opinion was one who scored the highest confidence level (3.75) and also accurately self-reported his/her lack of change in opinion. This may suggest that some relationship exists between high confidence and awareness of the influences that authoritative figures pose. It may also be because this individual scored as a fairly confident individual, that he/she does not view the authoritative figure presented in this study as truly authoritative. If this were true, it would nullify the effects of the authoritative figure, thus making the findings from this individual unclear. This individual was also the only participant that did not change his/her opinion at all.

Confidence Groups

It may be noted that the data derived from Figure 5, describing the percentage for reasons for change across confidence groups, may imply characteristics about each confidence groups. The finding that the group that answered "I was not confident with my initial answer" the most was the confident group may imply that confident people may be more willing to admit when they are not sure about what they don't know, as it requires a certain confidence level to be able to admit one's inabilities or weaknesses. Note that a high confidence level does not necessarily equate to high arrogance or immodesty. The choice "I was not confident with my initial answer" was originally framed to be directed to the unconfident group, so the fact that a different group picked that choice at a greater percentage was unexpected. Although this was not the main focus of this study, it may be interesting to further research the potential reasons for change in opinions across confidence groups.

Topics

The results derived from Figure 2, describing the varying levels of change in opinion across topics, may suggest that because most students have the least exposure to the topic of felons, they are more open to changing their opinion once one is provided by a seemingly

confident, authoritative figure (compared to the topics of college and standardized testing, on which most students likely think about on a regular basis and have formed opinions on, especially at a highly rigorous school like Jericho High School). Once again, it's important to note that the classroom setting of this study may contribute to an increased acceptance to the authoritative figure's ideas as the teacher served as an obvious authority figure that would be familiar to the average student.

Limitations and Further Study

The sample size of this study is also to be noted, as the experiment consisted of 37 participants. This sample size tends to be on the smaller side. This was likely attributed to may have to the fact that this study was conducted beyond school hours and during the summer. In addition, the school happened to be under heavy construction. These factors may have interfered with the availability of Jericho High School students to participate. A further study may be conducted to add a greater range of data to this experiment.

In the future, it may be interesting to study a few varieties of this present study. First, it would be interesting to see if similar results are concluded after replacing the authoritative figure with another student, pairing participants of low confidence and high confidence, or even placing many participants of low confidence with one of high confidence (to play the role of the "authoritative figure"). This could test if high confident students are able to present the same effects that an authoritative adult can on his/her peers. Second, it may also be interesting to test how various "authoritative figures" may influence a group of high school students. This could involve replacing the male authoritative figure in this present study with a female figure of similar authority or testing how varying introductions of the same authoritative figure may result in different data (such as introducing the authoritative figure as a substitute teacher versus a highly respected teacher of various challenging courses), though it would require the use of an unfamiliar "authoritative

figure”. Third, a change in setting could also result in varying conclusions, as the classroom setting and teacher “authority figure” may have primed the student participants to be more susceptible to accepting the perspectives expressed in the video.

The implications of this research would be important to spread awareness to adolescents — and even the “authoritative” adults that surround them — about the influences that peers have on the way they think. It is important for high school students to understand their inability to be fully aware of the impacts that the thoughts and opinions of the authoritative figures in their lives have on the students’ own thoughts. These influences are important for high school students to understand to be able to use better judgment when determining where he/she stands in the increasingly polarized world today. Through a greater understanding of authoritative influences, adults such as educators and guardians can be made more cautious of what they say and how they express their ideas around adolescents, limiting the potentially great influences they may have in biasing and restraining adolescents from reaching conclusions and beliefs that are truly their own.

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