The modified Asch task: The Relationship between Actual Conformity and Self-Reported Conformity

Jennifer L. Flint

The University of Southern Mississippi
The modified Asch task: The Relationship between Actual Conformity and Self-Reported Conformity

Social conformity has been defined as the modification of an individual’s judgment under the pressure of a group (Berns, Chappelow, Zink, Pagnoni, Martin-Skurski, & Richards, 2005). Many people acknowledge conformity as a common action, but to what extent are people aware that they conform? This study will examine how participants’ self-reports of conformity correlate with their performance on a task that is designed to capture actual conformity behavior.

Sherif (1937) performed one of the first studies on perception and attitudes in relation to social influences. Two participants participated in each experiment, one confederate and one actual. Their task was to perceive how far in inches a dot on the wall moved from its original location. The stimulus was a small spot of light presented at some distance in a completely dark room. The lack of visual reference created the illusory experience of autokinesis (Adams, 1912) whereby the observer typically reported the light as moving at some amplitude rather than as stationary at a fixed distance and location. The confederate participant in each experiment knew the norm and the range, and tried to influence the other participant towards that norm or toward another arbitrarily larger or smaller norm. This study found that people tended to answer toward group norms, whether they were aware of norms or not. A few decades later Asch (1951) performed an experiment that allowed for the study of social conformity in a laboratory setting. He found one or two confederates had little influence on conformity whereas three or more had the tendency to lead participants to conform. Each participant was placed in a group and asked to name out loud which line, of a choice of three, was the same length as the target line. The other people in the group were confederates in the experiment and often gave wrong answers to
influence the participant to conform. Asch discovered that about one third of the participants did
conform.

Berns et al., (2005) furthered Asch’s studies using a mental rotation task (Shepard &
Metzler, 1971) and functional magnetic resonance imaging (fMRI) to measure brain activity.
Berns et al. proposed that not only could conformity be a genuine change in conscious perception,
but may also be influenced by social pressure even when the individual is aware that peers
provide wrong information. Brown, Clasen, and Eicher (1986) examined social influences
among adolescents. Their study consisted of 20 hypothetical situations in which participants
were asked how likely they were to participate in an antisocial act. To measure conformity
dispositions a 53-item Peer Pressure Inventory (PPI) and a 28-item behavioral survey of self-
reported behavior was used to investigate the perception of peer pressure. The items were
controlled for social desirability by the Marlowe-Crowne measure (Crowne & Marlow, 1960).
The study shows that there is an inverted U-shaped curve in relation to conformity among
adolescents in grades 6 through 12. That is, there is a peak around age fourteen for peer
conformity dispositions. Findings also revealed gender differences in males in antisocial
behaviors, such that males were more likely to be influenced to steal, start a fight, or behave
impulsively. This finding indicates that conformity may involve underlying processes that
cannot be measured by a yes/no measure. Conformity can be influenced by self-other
differences, the need to feel accepted, cultural influences, or social pressures (Hoppe &
Loevinger, 1977). Hoppe and Loevinger discuss how experimental measures of personality traits
can be predictors of reactions to different situations, but self-reports and observed behavior are
more consistent across various situations. Thus, self-knowledge should be a likely predictor of
conformity.
Jetten, Hornsey, and Adarves-Yorno (2006) performed five experiments in which surveys were given to measure self-reported conformity and the relation between self-other discrepancies in perception of conformity. Each survey was modified to control for another level of conformity. For example, the first survey measured susceptibility to group pressures of the participants themselves and of their perception of people in general. This survey showed that people rate themselves less conformist than other people whom they rated high. The next survey measured how intragroup status affected self-reported conformity. Participants rated their own conformity in an intragroup status, either in an equal status or junior status. Participants showed higher self ratings of conformity in a junior status rather than in the equal status. The third survey introduced in-groups and out-groups to measure self-reported conformity. Intragroups were recognized in this study as well, but the in- and out- groups were determined by the area of study mentioned in the survey. All participants were graduate students in psychology. The in-group was told that the study was for another psychology student; the out-group was told that the survey was for a political science student. The in-group rated themselves more conformist when in a junior status in comparison to an equal status. The out-group did not show a difference. In Study 4, the intragroup status was manipulated to consist of a junior/senior status rather than an equal/junior status as in Study 2. No in-group/out-group differences were observed. This study found that self-other differences still existed as in Study 1: participants viewed themselves as less likely to conform than their peers. However, there were speculations that because there were no controls for in-groups or out-groups, conformity may have been compensated. That is, the lack of controls may mean conformity was not involved. The last study controlled for the idea from Study 1 and Study 3 that junior groups feel they are influenced more than senior groups. Participants were divided into public and private groups. Junior
groups were more likely to rate themselves as conformists in a public group. Four of the five studies found that one is more likely to rate themselves as lower than and closer to the average level of conformity, whereas the ratings they gave others was higher than and further from the average conformity level. Schoeneman (1981) found that the perception of oneself is more accurate than the perception of other people. He used a questionnaire and an interview to evaluate self-observation, social feedback, and social comparisons of the participants. By using self-report surveys in two studies to measure aspects of personalities, Jugert, Cohrs, and Duckitt (2009) examined the effects of social conformity and the personal need for structure as predictors of right-wing authoritarianism. By evaluating personality types, Jugert et al., was able to predict a person’s likely actions. Thus, by looking at self-reports, one is more likely to accurately predict another’s actions. This does not simply mean that people are less knowledgeable of others’ conformity than their own. This supports the idea that self-reports are more accurate than peer reports in measuring conformity.

Value to academic discipline

The current study will look at how the correlation between self-reported conformity and performance of conformity can be used to predict conformity. Previous studies have led to the hypothesis that self-reports of conformity will be highly correlated with performance of conformity. Various personality types may also be examined in relation to predicting conformity. By being able to predict behavior, psychologists will have more insight into the mind. This may help people avoid conforming behaviors, such as teenagers drinking, and also give us indications what factors promote or prevent independent, rational decision making.

Method

Overview and predictions
Through this study, participants will give information on self-reported conformity and observed conformity.

**Participants**

Participants for this study were undergraduate psychology students at the University of Southern Mississippi. Based on previous research, at least thirty participants would be ideal for this research.

**Measures**

A survey was given prior to participation in the experiment. Many surveys were included in the packet to gather information for multiple experiments. The ones relevant to this experiment were the Demographics 1, 2, and 3, and the Resistance to Peer Influence Scale (RPI; Steinberg & Monahan, 2007).

The demographics included age, academic status, ethnicity, gender, marital status, sexual orientation, and other things not relevant to this study such as alcohol intake over the past week.

The RPI was used to measure self-report conformity (Steinberg & Monahan, 2007). Participants in this survey are asked to read ten separate statements. Each statement contains two options, A or B. After selecting which option is more like themselves, the participant must decide if the option is “really true” or “sort of true” for them.

Completion of this survey was required for participation in the conformity study. In addition, a behavioral experimental method of measuring conformity was used for this study. The development of this new program is based on the study by Berns et al. (2005).

**Procedures**

The participant is given an informed consent form before the experiment starts. An elaborate cover story is described about the alleged goals of the study. The participant is told that
they are participating in a distance communications study with other students in four different laboratories across campus. These other “participants” are in fact computer images that were created by averaging faces of various people together. These images are displayed on the screen vertically; the actual participant was the sixth participant out of seven. The participant will not see their own picture, but will see a box with the word “YOU” to indicate where the other “participants” see their picture. This set up is shown in Figure 1. The participants are told they will see the other participants’ responses as they answer each question in order on some trials, but not on others. That is, the participant takes turns with the other “participants” responding to the trials and will see the computer generated answers on only half of the trials. The program displayed 60 pairs of dot arrays for one second. An example of a dot array is displayed in Figure 2. One pair of dot arrays was displayed at a time. After each display was shown, the participant was to determine whether the two arrays contained the same number of dots or not. After selecting “yes” or “no”, they rated their confidence on a scale from 0% to 100%.

When a participant attends an experimental session, they are assigned the next number in numerical order starting with 100. Participants receiving even numbers will not see the confederate participants’ answers on the computer screen on the first 30 trials and will see the answers on the last 30 trials. The opposite is true for the participants receiving odd numbers. The reason for the absence of the confederates’ answers is to control for the accuracy in response to the questions. That is, by not seeing the answers of the confederates, we are able to determine the participant’s accuracy in judging the dot arrays. All confederates respond by providing the same answer. Half of the trials contain the correct response whereas the other half the wrong answer. The trials are displayed in the same order for all participants. That is, the same order is used on all of the trials with and without the confederate answers.
Experimental Design and Data analysis

Survey results will be compared with the performance on the perceptual task. The dependent measures in the perceptual task will be confidence level and level of agreement with other people’s answers (expressed as a proportion of times an agreement was observed). The experimental design will involve several independent variables, such as the presence or absence of knowledge of results (feedback) from other “virtual” participants. The difficulty of the perceptual task will be operationalized using two variables: Numerosity will refer to number of dots in an array, whereas Numerosity Difference will be defined as the difference in the number of dots for a pair of arrays. Furthermore, Numerosity was coded into three levels based on the array that had fewer dots: small (less than 10 dots), medium (between 10 and 20 dots), and large (between 20 and 45 dots). The straightforward assumption is that the smaller the difference between the arrays, and the larger the arrays are, the harder the task should be. A mixed models analysis (Pinheiro & Bates, 2000) will be conducted on confidence levels and percent agreement as a function of Feedback, Numerosity and Numerosity Difference.

Debriefing will take place at the end of the school semester in which the experiment is to be run via e-mail. This is allowed due to the low risk and for maintaining confidentiality of the data in the experiment. The debriefing will include explanations about why deception was necessary for conducting this experiment.
References


Figure Captions

*Figure 1*: A screenshot of the experimental setup including the dot arrays and the list of alleged participants with photographs. The word “YOU” represents the participant’s response.

*Figure 2*: A screenshot of the experimental setup including the list of alleged participants with photographs. The word “YOU” represents the participant. The answers of each alleged participant are shown next to their photograph.
It is your turn to answer.

Please use the mouse to click on your response.

Did the dot arrays have the same number of dots?

Yes  No

You