

An Exploratory Study on the Difference between Online and Offline Conformity Behavior among Chinese College Students

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Abstract—Conformity is defined as one in a social group changing his or her behavior to match the others' behavior in the group. It is used to find that people show a higher level of online conformity behavior than offline. However, as anonymity can decrease the level of online conformity behavior, the difference between online and offline conformity behavior among Chinese college students still needs to be tested. In this study, college students (N = 60) have been randomly assigned into three groups: control group, offline experimental group, and online experimental group. Through comparing the results of offline experimental group and online experimental group with the Mann-Whitney U test, this study verified the results of Asch's experiment, and found out that people show a lower level of online conformity behavior than offline, which contradicted the previous finding found in China. These results can be used to explain why some people make a lot of vicious remarks and radical ideas on the Internet but perform normally in their real life: the anonymity of the network makes the online group pressure less than offline, so people are less likely to conform to social norms and public opinions on the Internet. What is more, these results support the importance and relevance of online voting, because fewer online group pressures make it easier for people to expose their true ideas, thus gathering more comprehensive and truthful views and opinions.

Keywords—Anonymity, Asch's group conformity, Chinese college students, online conformity.

I. INTRODUCTION

CONFORMITY is a ubiquitous phenomenon in today's society. It can occur in everything from shopping for food and clothing to taking an attitude and political stand towards social events. Nowadays, as intermediary with the development of the internet, computer-mediated communication (CMC) is being applied more wildly. People get more information from the internet and show their opinions. The online communication environment has a big difference with the face-to-face (f-t-f) situation since the people online can hide their real name, which is called anonymity, and do not need to face others directly. This situation is largely different with the situation when Asch conducted his conformity experiments. Therefore, it is urgent to study whether there are significant differences between people's comments on objective facts in the public evaluation of network and real environment.

Conformity is a common social phenomenon which was

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principally defined as the behavior yielding to group pressures [1]. In 2004, it was defined as the phenomenon that one in social groups change his behavior to match the others' behavior in the group [2]. There are two kinds of conformity which are the informative social influence and the normative social influence [3]. There are three levels of conformity: compliance, identification, and internalization [4]. This review mainly discusses the normative social influence and focus on the compliance level.

In the 1950s, psychologist Asch [5] found that when there were seven "fake" participants, one third of the real participants would follow the wrong answers given by participants pretended by experimenters; and only one fourth of the real participants would answer without being influenced. What is more, he also found that the impact would take effects when the number of pretending researchers is 3. And larger number of pretending researchers, like 4, 8, and 16, would not enlarge the impact. In 1952, Asch explored more factors which may influence the results [6]. When one of the experimenters have the same answer as the real participant, their answers had no significant difference with that of previous studies. However, when the objective fact became more obvious, the majority effect did not decrease obviously.

In 2019, Liu initiated an experiment in China. In this experiment, most of the Chinese participants were collectivists. The result shows that the anonymity of the internet did not reduce conformity behavior but showed a strong spiral of silence effect [7]. However, the limitations of this experiment are that they use the WeChat Moments as the experiment environment which means that they cannot control many variables and the anonymity is low because of the character of this app. Thus, the difference between online and offline conformity behavior still needs to be discussed.

There are some other researches about the online conformity. According to Cilesiz and Ferdig [8], people tend to share their opinions in CMC and adhere to their initial opinions. This result seems to tell that anonymity can reduce the ratio of conformity. On the contrary, another experiment showed that there was a high conformity rate in the CMC [9]. Therefore, in this experiment, researchers focused the normative social influence on the compliance level in the internet and in this experiment, the online and offline environments are strictly controlled. Through controlling of the experiment material, during the online period, the anonymity of participants is high. Because this experiment is a replication study, there are no new features in the procedure. The procedure of the offline environment is

strictly repeated as according to Asch's experiment and the online version is conducted according to a similar procedure. Therefore, it is possible to compare the results of two different situations.

The hypothesis is that the conformity in the online environment is smaller than offline environment because of the lower social pressure. The result of this experiment can be applied to the research of the modern internet communication environment and online teaching design.

II. METHOD

A. Participants

Participants were 60 students (30 female, 30 male) from Beijing Normal University Hong Kong Baptist University United International College (short for UIC), ranging in age from 18 to 22 years. Participants were recruited through both offline campus recruitment and online recruitment with quota sampling, and people who knew Asch's conformity experiment were excluded.

B. Material

18 questions about color block identification were shown in the slide presented on the computer screen (Fig. 1). On each slide, there were three color block options (labeled with 1, 2, 3) and a color block sample. The differences between the three option blocks can be accurately identified by most people. Participants were asked to select the option color which had the same color as the sample block. Of the 18 sets of questions, nine were conformity questions (all the five fake participants' answers were uniform and wrong) and nine were non-conformity questions (the fake participants' answers were not uniform and not necessarily wrong). The conformity and non-conformity questions were randomly distributed among the 18 questions. After completing a question each time, participants were given a five-second break.

C. Research Design

This experiment was conducted in two separate sessions. In session 1, the independent variable was whether there were fake participants attending the experiment process. In the control group, the real participants completed the experiment alone in a room: used a computer screen to identify color blocks, and verbally told their answers to the experimenter who recorded their answers on charts. In the experimental group, the real participants used a computer screen with fake participants to identify the blocks of color and orally presented the answers in sequence to the experimenter.

In session 2, the independent variable was the way participants participated in the experiment: online or offline. In the online group, participants posted their answers through the online chat room without real meeting with the fake participants. However, in the offline group (the experimental group in session 1), participants sat around with the fake participants and answered questions one by one. The dependent variable is the conformity rate of participants on specific questions.

D. Procedure

Participants were recruited through both offline campus recruitment and online recruitment with quota sampling. They came from different grades and majors. A between-subject design of three groups (Offline control group & Offline group & Online group) was used. Participants were randomly assigned to the three groups, and each group had 16 participants. All participants participated in the experiment alone. To be specific, in the experimental group, although there were five "subjects" participating in each experiment, only one of them was a real subject, while the others were disguised by researchers.

In order to avoid the participants' knowing from influencing the experimental results, in the informed consent, the purpose of this study was described as studying whether the distance between the optional color block and the standard color block would affect college students' judgment of whether the color was consistent between the two.

E. Control Group

Participants were asked to enter a designated room alone after signing the informed consent form. They were told that they would take part in a color-block discrimination experiment. There was only one participant in the room, no other experimenter or fake participant. The experimental materials were presented to the participants on a computer screen while their answers were recorded.

F. Offline Experimental Group

One real participant and four fake participants (disguised by the experimenter) performed the offline experiment in the same room as the online experiment. Before the experiment began, the subjects were told what order of subjects they were in the group, and the real subject was always number 4 because the participant was designed as the second to last person in the group to answer in Asch's experiment. When participants were told to take part in a color-block discrimination experiment, both the real participants and the experimenter were shown the same material on a computer screen as in the control experiment and then given answers in sequence. The participant's answers were recorded.

G. Online Experimental Group

Participants of the online group were asked to turn off their phones and enter a designated room alone after signing the informed consent form. In the room, there was a computer with a prepared virtual chat room of *Tencent Conference* (a computer software). The questions were shown on this computer through the function named "shared screen" of Tencent Conference. Next to the computer, there was an operation guide which the participants were asked to follow. According to the operation guide, the participants should publish their answers of questions in order, which meant that participants could not type and post their own answers on the computer until the first three "fake participants" published their answers.

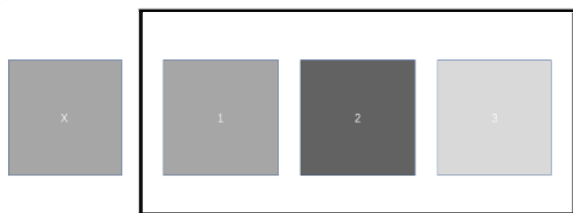


Fig. 1 Values for figures

After completing the experiment as required, the participants were asked to leave the room and fill in the basic information table. They got debriefings from the researchers about the real purpose of the experiment. All participants got rewards after finishing the experiment.

III. RESULTS

There were two sessions of this experiment and each session had one hypothesis. In session 1, the prediction is that the number of people who answered the questions wrong (due to conformity) in the offline experimental group would be far more than that in the control group. Therefore, the null hypothesis of session 1 was that for the general population of UIC students, there is no relationship between the presence or absence of fake subjects and the number of real subjects who answered the questions wrong.

The data of the control group and the offline group are shown in Table I. To examine the association between the two variables, Mann-Whitney U test was used by SPSS with $\alpha = 0.05$ (Table I). Since $p < 0.05$, there was significant difference in individual conformity between the two groups. This result confirmed the previous research results, that is, offline group [5], [7] pressure can significantly increase individual herd behavior.

TABLE I
 RANKS OF OFFLINE GROUP AND CONTROL GROUP

Group	n	M	Sum
Offline	20	30.50	610.00
Control	20	10.50	210.00
Total	40		

M = Mean, n= the total number of participants.

TABLE II
 RANKS OF OFFLINE GROUP AND ONLINE GROUP

Group	n	M	Sum
Offline	20	24.93	498.50
Control	20	16.08	321.50
Total	40		

M = Mean, n= the total number of participants.

In session 2, whether the group pressure caused by the same number of fake subjects is different online and offline is the research question. The null hypothesis is that in the population of UIC students, the proportions in the distribution of the number of people who conformed to others while answering the question for the online group are not different from that for the offline experimental group. The Mann-Whitney U test was conducted to analyze the data (Table II). There were significant

differences in the number of questions that participants had conformity behavior between offline group and online group ($p < 0.05$).

IV. DISCUSSION

A. Conclusion

First, the result gained from the control group and offline experimental group verified the results of Asch's experiment. Besides, this study filled the research gap of the comparison experiment of conformity between online and offline and got the results that people are easier to conform in an offline environment than they do online.

B. Limitations

Although the experimental process was tried to rigorous and strictly control irrelevant variables, this experiment still has some limitations. Firstly, there is a sample bias. The sample of the experiment is not very big enough and is not selected randomly. Secondly, the experimental procedure might mix with some unknown confounding variables. In this experiment, since every group member has a different schedule, the fake participants in each group were not the same. The difference of fake participants' performance may have introduced confounding variables.

C. Implication

Although the experiment has the limitations mentioned above, it still has great contributions in explaining some social phenomenon in people's daily life. There is a phenomenon that some people behave very normally, very gregariously in real life. They are very kind to others and very polite. However, when they speak online, these people become reckless. They make a lot of vicious remarks and radical ideas on the Internet, which is totally different from their performance in their daily life. This phenomenon can be explained by the research conclusion: due to the anonymity of the network, the online group pressure is less than offline, so people are less likely to conform to social norms and public opinions on the Internet, and are more likely to expose their true ideas.

D. Future Study

There is still a limitation that this research results cannot explain the online phenomenon and predict people's online behavior very well. This is because the questions used in this experiment are all objective questions with only one correct answer, but there is no absolute right or wrong in the events people are exposed to on the Internet and the evaluations of these events are also subjective. Therefore, in order to better understand the social phenomenon of online public opinion, we suggest that future research can study the online conformity with subjective events.

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