

A Literature Review of Diffusion of Responsibility Phenomenon

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ABSTRACT

The concept of the diffusion of responsibility has been well studied with sufficient empirical attention. However, there is no literature review on this topic currently, so this review aimed to examine the existed literature on the topic of the diffusion of responsibility. Google Scholar and Baidu Scholar were used as the research database and “diffusion of responsibility” “group” “awareness” “culture” “bystander effect” were used as search keywords. In this review, we selected the college class and charity donation situations to show the pervasiveness of the phenomenon of the diffusion of responsibility to show its pervasiveness in daily life. Then, the potential causes of the diffusion of responsibility as the group size, self-awareness, and culture were discussed. Lastly, we examined the phenomenon of the bystander effect, helping behavior, social loafing, and risk-taking behavior as the effects of the diffusion of responsibility. This work presented a systematic review on the topic of the diffusion of responsibility, and it laid a foundation for future related work.

Keywords: Diffusion of responsibility, Group size, Self-awareness, Bystander effect, Risk-taking behavior, Helping, Social loafing.

1. INTRODUCTION

On March 13, 1964, the people in the United States were shocked by a piece of breaking news. An A-28-year-old woman named Kitty Genovese was murdered in the early hours. The case wasn't famous because of the investigation, it is because of what happened that night: Around 2 a.m., Genovese encountered an attacker with a knife on her way home. She immediately ran to her home while the attacker kept stabbing her body. She screamed, and one of her neighbors opened the door, yelled at the attacker to let him leave her alone. The attacker went away. Genovese was seriously injured, tried her best to return to her home. However, ten minutes later, the attacker came back, raped her, and stabbed her to death. Her body was found by another neighbor later the same day. According to the investigation, at least 38 people have heard her scream that night, but no one called the police until her body was found on the first floor of her apartment building. People were wondering why Genovese's neighbor refused to help her, while they used to have a close relationship with Genovese. After years

and years, the researcher finally found out the truth. Behind this case, it is a significant social psychological phenomenon: diffusion of responsibility[1]. It refers to the phenomenon that when the number of bystanders increases, the responsibility the bystanders feel that need to take will decrease. Like in Genovese's case, many of her neighbors reported the same when being interviewed: someone else would help her.

The phenomenon of diffusion of responsibility is pervasive in different aspects of daily life. People may notice that when in such a situation that someone needs help, the more the people that present, the less the people would be willing to help. In the early days, people may think that is the sign of people are turning more and more indifferent. Therefore, understanding the phenomenon of diffusion of responsibility can help the researchers and others to know more about some human behaviors.

In this section, firstly, two examples about the diffusion of responsibility in a college class and charitable donation to show the influence of diffusion of responsibility on people's life were examined. Then, the

three main causes of this phenomenon which include group size, self-awareness, and culture were analyzed. Lastly, we discussed four effects of the diffusion of responsibility to show its close connection with people's life.

2. PERVASIVENESS OF DIFFUSION OF RESPONSIBILITY

2.1. Diffusion of responsibility in college class

The studies showed that the diffusion of responsibility happens in college classes [2]. It is suggested that students would participate less actively when the responsibility of answering the teacher's questions is diffused, which may lead to class reticence. Specifically, the statistical results of this study showed that 13.68% of students' reticence was caused by the diffusion of responsibility. The researchers did one-on-one interviews with 10 volunteers to explore more descriptive psychology reasons, and a significant one was fluke mentality. That was when students may think that they would not be picked as there are so many students in the class. Besides, herd mentality was also a motivation for this phenomenon that students may follow other students who ignore and be indifferent to the teacher's questions. It is interesting to note that some students who wanted to participate in class initially may be affected by the silence of others. Overall, the reluctance to answer teachers' questions in college classes is quite common and can be explained by the diffusion of responsibility.

2.2. Diffusion of responsibility in Charitable donation

The phenomenon of diffusion of responsibility also appears in the charitable donation circumstance [3]. When the responsibility of donation was diffused among more people, each individual would donate less. In the study, researchers did two experiments. In study 1, one researcher approached the patrons of a university's pub and ask him/her to do the charitable donation. It was shown that the patrons are more likely to donate with a generous amount of money when they were being approached solitarily. However, as the group size of patrons increased, the donation amount decreased. In experiment II, the solicitations in the classroom were held in either large groups or small groups. The result showed a similar result to the experiment I that smaller groups tend to be more generous and donate more money. This research's finding is in accord with the original diffusion of responsibility model by Latane and Darley [4]. A similar discussion about the diffusion of responsibility in donation also appeared in a recent study by Lee and his colleagues in 2017. As a result, the diffusion of responsibility can be found in donation situations.

3. CAUSES

3.1. Group size

By reviewing research from old to recent, it is eminent that an increase in the group size is one of the most influential factors that leads to the diffusion of responsibility. The early study by Latane and Darley demonstrated the diffusion of responsibility in emergencies. In the study, under the emergency of an epileptic seizure, solitary participants reacted significantly faster than participants in groups[4]. Furthermore, there is a significant difference in reaction time between the group size of two and the group size of three. A similar result also showed in the later study by Latane and Dabbs that the experimenters "accidentally" dropped a handful of pencils or money in front of crowds of people in an elevator[5, 6]. The result suggested that people are less likely to give a hand as the number of people increased. These studies identified the phenomenon of diffusion of responsibility and laid a solid foundation for later research to examine the relationship between group size and diffusion of responsibility.

One study done by Latane and Freeman about the relationship between group size and the tipping amount at the restaurant examined the idea that there is an inverse power function between these variables[7]. To be specific, individual diners tipped over 19 percent on average, whereas groups of 4 to 6 diners tipped just 13.5 percent. However, explanations other than diffusion of responsibility could be possible, for example, the waiter might serve a large group less thoughtfully, so they received fewer tips.

Another research further clarified the relationship between group size and diffusion of responsibility in a charitable setting, excluding the confounding variables [3]. The result indicated that people tend to be more likely to donate generously in solitary than in groups ($p < 0.05$). What's more, students in small groups donated more generously than students in large groups ($p < 0.01$). This study is more controlled and has fewer confounding variables than the tipping study. From the above studies, people from larger groups tend to contribute less because their responsibilities are diffused by other members in the group.

The group size effect happens on the Internet as well. One recent study about e-mail and diffusion of responsibility by Barron and Yechiam revealed that the e-mail message to a single recipient had more responses, and the responses were more helpful and longer[8]. In contrast, the e-mail message which contained four recipients received fewer responses. This study broadened the application of the group size effect in the diffusion of responsibility to the Internet and opened a direction for more related research.

3.2. Self-awareness

Self-awareness can be regarded as the reason to explain the group size effect in the diffusion of responsibility. To investigate more about this principle, Wegner and Schaefer experimented with the concentration of responsibility to test the function of self-awareness in different helping scenarios [9]. In this study, they proposed two analyses. Firstly, the diminishing possibility of helping in the diffusion of responsibility in a group can be explained by the decrease of self-awareness in each bystander. Secondly, based on the previous analysis, they derived a hypothesis that the increase in the concentration of responsibility could lead to an elevation of self-awareness and thus increase the helping behavior. The concept of self-awareness is generated from Koffka's theory of the Gestalt figure-ground principle [10]. The self-awareness idea illustrates that the potential helper in solitary pays attention to himself and the victim; the potential helpers in a group pay attention to other people in the group and the victim. So, in the larger group, people have less self-awareness to give a hand. The experiment tested in scenarios with a varied helper (1 vs. 3) and victim (1 vs. 3). The result showed people are more likely to help when they are the only helper, or there are more victims. As a result, this study confirmed the hypothesis that diffusion of responsibility is related to self-awareness, and self-awareness can be increased by concentrating the responsibility.

Anonymity is also a factor that can influence the diffusion of responsibility. Recently, researchers have regarded anonymity as a kind of decrease in self-awareness [11]. One study about responsible dispersion suggested that increased anonymity is associated with increased dispersion and therefore higher diffusion of responsibility [12]. Thus, in a less identifiable situation, or a group, it is more likely for an individual to be responsible, because their self-awareness is weakened.

3.3. Culture

The diffusion of responsibility phenomenon also appears differently under different cultural backgrounds. People who grow up in cultures like collectivism, for example, Chinese, tend to show less diffusion of responsibility in group work [13]. The researcher has tested two groups of participants from the United States and the People's Republic of China. The researcher had carefully matched them in age and gender so that it can waive the side effect to the minimum. The results showed that the Chinese participants even worked better when in the group than when worked alone [13]. Since the research is mainly focused on the influence that brings by collectivism and individualism on social loafing, and collectivism is a special culture that appears in China which believes that the bigger group is more important

than the individuals. The comparison among different cultures also showed that the behavior of the Chinese has been influenced by collectivism [14]. It is reasonable to state that different cultures will affect the possibility of diffusion of responsibility.

4. EFFECTS

4.1. Bystander effect in children

The bystander effect also appears in children. In, 2007, researchers experimented to test that if children would try their best when doing a puzzling problem within a group. The results showed that even young children show social loafing [15]. Later on, researchers have done a similar experiment on young children in 2015. They have also set up three different situations that test if the children would help the experimenter or not. The children were asked to join an activity that will be assigned to a room and draw with paints. The experimenter will pretend that he/she accidentally spills the water on her body and will shout out for help. The children will either draw alone or draw with two bystanders. To waive the side effects, the third set will use a paper wall to block the two bystanders so that the participant will be the only one who can help the experimenter in the room [16]. The results have shown similarly with previous research that mentioned if the participant is the only one that is in the room or the only one that can help, the diffusion of responsibility did not show and vice versa.

4.2. Helping behavior

The phenomenon does not determine by how many others are also involved in such a situation; it is all about how many that able to help in the situation. The develop research on Latané and Darley designed an experiment that tests what the participants will do when they are not able to see the actual situation [4]. The participants are all freshmen or sophomores' college students aged between 19-20. They were told to be in an ESP test, and they cannot be communicated with other participants. The actual test was that the researcher put a "victim" and another "participant" as a bystander. The "victim" was just a recording sound that represent someone who could be hurting. The "participant" is the bystander. The bystander is asked to act in three different levels: no big deal, someone may get hurts, and serious emergency. To waive the side effect, the researcher has a different situation, the bystander is in another building so that he/she could not come and help [17]. The results have shown that the diffusion of responsibility did not appear when the bystander was not able to help. Plus, the possibility of appearing the phenomenon is higher when the bystander acts like the victim did not get hurt or it is only possible to get hurt than it is a serious emergency.

4.3. Social loafing

There is an old saying that “many hands make light the work”. It is not always valid as there may be fewer efforts individuals made in a group compared with the circumstance when they worked solely. This idea could be traced back to 1913 when Max Ringelmann experimented to prove it. In his research, he asked one group of participants to pull the rope together and let another group of participants pull it individually. What surprised him was that people worked less actively when they were in a group than when they worked alone. Later in 1979, the Cheering Study asked participants to shout out loud either individually, in pairs, in groups of six, and in pseudo groups where they shouted alone without letting them know [18]. As a result, people put less effort into it when they thought they were in groups than they were alone. The phenomenon of social loafing can be explained by the notion of diffusion of responsibility that people in a group felt less personally responsible for the task’s outcome as they thought their responsibility would be “lost in the crowd” [19].

4.4. Risk-taking behavior

Diffusion of responsibility can also affect the risk-taking behavior in groups [20]. In the study, researchers asked participants to choose between two actions, one containing considerably higher risk than the other one but also accompanied with greater rewards, in 12 everyday life situations. In the experimental condition, those participants were asked to make their decisions individually. Afterward, they were brought together in groups of six and they discussed reaching a consensus on each question. The result suggested that group decisions were riskier than the individual ones before the discussion. To sum up, when individuals were making decisions in groups, the personal responsibility got diffused, which may lead to some highly risk-taking behaviors.

Overall, our work examined the diffusion of responsibility from aspects of its causes and effects. However, we acknowledge that there are limitations to this study. The primary limitation of this review is the limited number of included studies. For example, the reliability would be stronger if the idea from a certain section could be supported by more studies. To address this limitation, future investigations could focus more on finding resources from different channels including finding the grey literature to validate and extend the finding.

5. CONCLUSION

Based on the pervasive phenomenon of the diffusion of responsibility in different aspects of life and the previous related empirical evidence, we conducted a literature review of the diffusion of responsibility. This

study represents the first attempt to examine and review the topic of the diffusion of responsibility. In this review, we analyzed the topic from its pervasiveness in daily life, its causes, and its effect on behavior. Our work highlights that the diffusion of responsibility plays a crucial role in human behavior, especially in public circumstances. Our study demonstrates the topic with great practical significance, for example, this study could have an important contribution for public policymakers. Future investigations could focus more on the implication based on the concept of the diffusion of responsibility.

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