

## THE IMPACT OF GUILT ON MIMICRY BEHAVIOR

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In the experiment we conducted, participants were separated into guilt or not guilt conditions, with guilt induced by causing participants to feel that they were responsible for something wrong that occurred to a confederate. A few minutes later, the participants viewed a video where a young female touched and rubbed her face several times. A measure of feeling of guilt was administered in both experimental conditions. Participants in the guilt condition mimicked the target person more than those in the no-guilt condition. The level of mimicry appeared to be linked with the level of guilt felt, but only in the guilt condition. Results support the notion that mimicry helps to create affiliation and rapport because the desire to build such a relationship is higher in the guilt condition.

*Keywords:* guilty, mimicry, affiliation.

*Mimicry*, also called the “chameleon effect” (Chartrand & Bargh, 1999), refers to *unconscious imitation of behaviors such as postures, facial expressions, mannerisms, and other verbal and nonverbal behaviors*. Researchers have shown that in social interaction, people mimic a host of verbal and nonverbal behaviors of their counterparts (Bavelas, Black, Lemery, & Mullet, 1986, 1987; Giles & Powesland, 1975; LaFrance, 1982). This mimicry is explained by a perception-behavior link theory (Chartrand & Bargh, 1999; Dijksterhuis & Bargh, 2001) arguing that seeing someone engaged in a behavior activates that behavioral representation which, in return, leads the perceiver to engage himself or herself in that behavior. Mimicry is also explained in terms of rapport and liking. Chartrand

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and Bargh (1999) found that participants who were mimicked by a confederate reported liking the confederate more than those who were not mimicked. Lakin and Chartrand (2003) found that affiliation goals were associated with higher levels of mimicry behavior. Participants primed with words related to the concept of affiliation (friend, partner) expressed greater level of mimicry than those primed with neutral words. Lakin and Chartrand also found that participants who unsuccessfully attempted to affiliate in a first interaction, exhibited more mimicry behavior in a later second interaction with another confederate, than participants who experienced successful affiliation in the first interaction. Thus, if the desire for affiliation with somebody enhances mimicry behavior, we can speculate that guilt could trigger the same reaction. Researchers of several studies found that people who experienced feelings of guilt after a first social interaction with somebody – because they had been instructed to tell a lie (Freedman, Wallington, & Bless, 1967) or to deliver electric shocks (Carlsmith & Gross, 1969) – were more likely to respond to an opportunity for altruism occurring in a second social interaction with someone else. It was concluded that the effect of guilt on altruism would be a tendency to expiate the guilt by doing something good for somebody. However, other factors are probably affected by guilt, especially affiliation behavior. When guilt is experienced after a social interaction and when no possibility is offered to expiate this feeling, an individual probably feels intraindividual motivation to succeed in a further social interaction and be perceived positively by his/her counterpart. Given the link between mimicry and the desire to create affiliation, we hypothesized that guilt would enhance mimicry behavior.

## METHOD

### PARTICIPANTS

The participants were 44 female undergraduate business students, all aged between 18 and 20, who were randomly assigned to the experimental conditions (guilt, no guilt).

### PROCEDURE

Upon arrival at the laboratory office, the participant was first instructed by a female assistant to fill in a short form (names, address, age, place of residence, phone and email contact details). In the meantime, the assistant used her telephone to call a female confederate waiting in another room (letting the telephone ring twice before hanging up). The participant was instructed to walk down to the laboratory room at the far end of a long narrow corridor after the office. The confederate was waiting in her office with her door open. Her office was situated halfway down of the corridor. When the participant neared her office, the confederate came out of her office with a pile of copies in her arms,

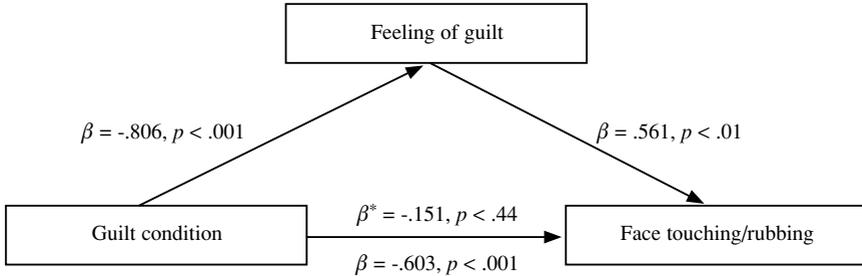
bumped into the participant, and dropped the copies on the floor. In the guilt condition, the confederate, while collecting her copies on the floor and without looking at the participant, was instructed to say "Can't you be more careful when you walk? All my copies are mixed up now and I have to get them in order and file them again in two minutes". Once she had said that, and finished picking up her copies, the confederate stood up and walked away in the opposite direction of the participant. In the no-guilt control condition, the confederate was instructed to say "I'm so sorry! It's my fault. Aren't I clumsy; it's the second time this week. I'm always daydreaming". As in the guilt condition, after picking up her copies, the confederate stood up and walked away in the opposite direction.

After that, the participant arrived at the experimental room and was greeted by the experimenter who was unaware of the experimental manipulation. The participant was seated and was instructed to view a two-minute videotape displayed on a computer in which a young female responded to a short survey about her food habits. During these two minutes, the young female touched and rubbed her face five times. Participants were informed that they were taking part in a study on impression formation and were instructed to observe carefully the target in order to form an impression of her on the video. After this instruction phase, the participant, alone in the room, viewed the film on a laptop computer. During this phase, a webcam filmed the participant. At the end of the experiment, the experimenter asked the participant to indicate what she thought the purpose of the research was and to indicate if she had noticed anything unusual about the experiment (none expressed suspicion). The participant was then reminded of the interaction with the confederate who dropped her copies on the floor after bumping into the participant. She was instructed to respond to a scale that evaluated her level of guilt after this interaction: "I felt no guilt (1)/very guilty (9) after this event". After responding, the participant was fully debriefed. Two coders, unaware of the experimental conditions and predictions, were instructed to view separately each video clip of the participants and to count the number of times the participant had touched/rubbed her face. A high level of intercoder reliability was found,  $r(43) = .99, p < .001$ ; the mean of the two coders' counts was thus used as the dependent variable.

## RESULTS

The feeling of guilt presented a mean of 4.40 ( $SD = 1.27$ ) in the guilt condition and a mean of 2.32 ( $SD = 1.13$ ) in the no-guilt control condition. The difference appeared to be significant ( $t(42) = 8.83, p < .001, d = 2.72$ ) attesting that the method used to create a feeling of guilt produced the expected results. A test for independent means was conducted with the two experimental conditions as the independent variable and the number of times the face was rubbed/touched as the

dependent variable. In the guilty condition, participants exhibited significantly more face touching/rubbing ( $M = 4.09$ ,  $SD = 1.27$ ) than in the no-guilt control condition ( $M = 2.31$ ,  $SD = 1.13$ ),  $t(42) = 4.89$ ,  $p < .001$ ,  $d = 1.51$ . To test whether the feeling of guilt mediates the effect of mimicry on face touching/rubbing, a statistical mediation analysis (MacKinnon, 2008) was performed. The results of the mediation analysis are illustrated in Figure 1.



**Figure 1.** Mediation analysis.

Note: \* =  $\beta$  coefficient when controlling the effect of the mediator tested.

Guilt was significantly related to face touching and/or rubbing ( $B = -1.77$ ,  $ES = .362$ ,  $t = -4.89$ ,  $p < .001$ ). It was also found that guilt was significantly related with the feeling of guilt ( $B = -2.64$ ,  $ES = .299$ ,  $t = -8.83$ ,  $p < .001$ ) and that feeling of guilt was significantly related with the number of face touching/rubbing ( $B = .504$ ,  $ES = .172$ ,  $t = 2.93$ ,  $p = .006$ ). When controlling the feeling of guilt, it appeared that guilt was not related to face touching and/or rubbing ( $B = -.443$ ,  $ES = .563$ ,  $t = -0.79$ ,  $p = .44$ ) suggesting that the relationship between the independent variable (guilt conditions) and the dependent variable (number of occurrences of face touching and/or rubbing) was mediated by the feeling of guilt (MacKinnon, 2008).

## DISCUSSION

The results of our research support our hypothesis that guilt enhances mimicry behavior. It was also found that the level of guilt felt by the participants was mediated by the relationship between guilt and the level of mimicry expressed by the participants. In previous research, it has been found that guilt has the power to foster more controlled and conscious behaviors such as helping behavior (see Baumeister, Stillwell, & Heatherton, 1994 for a review). However, this is the first evidence of an effect of guilt on automatic behavior and then on mimicry. Here, the effect of guilt on mimicry occurred even if the target person was presented on a computer screen and participants were alone in the room. Strictly speaking, this is not a social interaction. So, the effect of mimicry supports the idea that

guilt has some consequences on an automatic behavior displayed without any awareness of the participant. The results are in accordance with the theoretical explanation that mimicry is used to create affiliation and rapport between two individuals (Jefferis, van Baaren, & Chartrand, 2003; Lakin & Chartrand, 2003; Lakin, Jefferis, Cheng, & Chartrand, 2003). Lakin and Chartrand found that participants who had unsuccessfully attempted to achieve affiliation in a first interaction exhibited more mimicry behavior in a later interaction with someone else, than participants who experienced success in the first interaction. In our guilt condition, participants had experienced an unpleasant social interaction with someone they did not know and were led to think that they were responsible for this failure. So, when they experienced another social interaction a few minutes later, the participants were under pressure to succeed in this new interaction. Mimicry behavior, which is positive social behavior used with the aim of being perceived more positively by someone (Chartrand & Bargh, 1999), became here a good method for succeeding in this new social interaction, even if the target person was only presented on a video.

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