

## THE MIMICKER IS A MIRROR OF MYSELF: IMPACT OF MIMICKING ON SELF-CONSCIOUSNESS AND SOCIAL ANXIETY

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In this experiment, a confederate was asked to mimic the posture and movements of participants who, subsequently, completed the French version (Pelletier & Vallerand, 1990) of the Scheier and Carver (1985) Self-consciousness Scale. Results showed that mimicry was associated with increased private and public self-consciousness and decreased social anxiety. Such data confirmed that mimicry is associated not only with changes in perception about a mimicker but also has an effect on self-perception of the person mimicked.

*Keywords:* mimicry, self-focus, self-consciousness, social anxiety.

Mimicry, also called the *chameleon effect* (Chartrand & Bargh, 1999), refers to *the unconscious imitation of postures, facial expressions, mannerisms, and other verbal and nonverbal behaviors*. Much of the research on this topic has had as its focus the impact of mimicry on the perception of the mimicker. For example, participants who are mimicked by a confederate have reported liking that confederate more than have those participants who are not mimicked by a confederate (Chartrand & Bargh, 1999). This change in the perception of the mimicker is usually associated with a change in behavior of the person mimicked towards the mimicker. In two important studies, see van Baaren and colleagues (van Baaren, Holland, Kawakami, & van Knippenberg, 2004) confirmed that mimicry is associated with more frequent helping behavior towards the mimicker. While the positive effect of mimicry on the perception of the mimicker is well documented, the effect of mimicry on self-perception of the person being mimicked has rarely been evaluated. In a recent study Kouzakova, van

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Baaren, and van Knippenberg (2010) found that whether or not a participant is mimicked during an interaction can be associated with variation in physiological state. These researchers found that during baseline measurements, the salivary cortisol concentrations of nonimitated participants was not different from the concentrations of imitated participants. Whereas after interaction, concentrations of this corticosteroid hormone increased in the group of nonimitated participants, they remained unchanged in the group of imitated participants. For the authors, the stressful consequence of a lack of behavioral imitation explains this result because this behavior is interpreted by the participant as a rejection signal. From the results of this study it becomes clear that mimicry has an internal effect on the person who is being mimicked.

In a new experiment, I hypothesized that mimicry would have an effect on the self-perception of participants and, particularly, would enhance self-consciousness in participants. Self-consciousness is considered as a part of self-awareness, but with the additional realization that others are similarly aware of you. Being watched or observed by somebody else activates self-consciousness and positive or negative self-consciousness feelings. George and Stopa (2008) found that participants who were exposed to their own image in a mirror expressed greater self-consciousness which, in turn, decreased social anxiety. Considering that mimicry constitutes a *mirroring effect* because it involves someone else mimicking our own behaviors, I surmised that mimicry should, therefore, be associated with increased self-consciousness.

## METHOD

Thirty-six female undergraduate business students, aged between 18 and 20 years, were randomly assigned to the experimental conditions (18 in the mimicked condition and 18 in the control condition).

Upon arrival at the laboratory, each participant was led by the experimenter into a room where a female confederate, presented as an assistant, was seated. The participant was instructed to sit in a chair that was placed perpendicularly so that it half-faced the confederate's chair. The experimenter then left the room and the confederate explained that the experiment consisted of examining people's reactions to certain types of magazine advertisements for a marketing study. The participant was asked to describe verbally her opinion of each of six specific advertisements for approximately one minute each. In the experimental condition, the confederate was instructed to mimic the posture of the participants during their verbal descriptions, by copying their body orientation (e.g., leaning forward) and the positions of their arms and legs. In the control condition, the confederate acted in the same way but was instructed not to mimic the participant. The confederate was trained to keep the rest of her behavior, with the exception of the mimicry, the same across the two conditions. The interaction

lasted for approximately 6 to 8 minutes. After participants completed the first task, the experimenter reentered the room and asked the participant to move into a second room. The experimenter then asked the participant to complete the Self-consciousness Scale (Scheier & Carver, 1985), using the version that has been adapted into French and validated by Pelletier and Vallerand (1990). It was determined that none of the participants were suspicious about the true purpose of the experiment or the experimental hypothesis. Participants were fully debriefed and thanked.

## RESULTS

Following Scheier and Carver (1985), three subscales within the self-consciousness scale were determined for data analysis: private self-consciousness (“I think about myself a lot”, “I am constantly thinking about my reasons for doing things”...), public self-consciousness (“I care a lot about how I present myself to others”, “I usually worry about making a good impression”...) and social anxiety (“It’s hard for me to work when someone is watching me”, “I feel nervous when I speak in front of a group”...). An independent samples *t* test was conducted to evaluate statistical differences in the results (Table 1).

**TABLE 1**  
MEAN SCORES FOR THE SELF-CONSCIOUSNESS SUBSCALES PRESENTED ACCORDING TO THE EXPERIMENTAL CONDITIONS

Self-consciousness subscale	Mimicry	No mimicry	Independent <i>t</i> test
Private self-consciousness	17.78 (3.49)	14.83 (3.74)	$t(34) = 2.44, p = .02$
Public self-consciousness	13.94 (2.79)	11.67 (2.89)	$t(34) = 2.40, p = .03$
Social anxiety	8.94 (2.12)	10.83 (2.66)	$t(34) = 2.35, p = .03$

*Notes:*  $n = 18$  in each group; standard deviation is in parenthesis.

The results of this experiment show that participants in the mimicry condition expressed more self-consciousness than did participants who were not mimicked. This effect was found with both the private and the public dimensions of self-consciousness. Inversely, it was also found that the social anxiety expressed by participants was significantly less in the mimicked group, when compared with the nonmimicked group. Therefore, the data analysis confirmed the hypothesis.

## DISCUSSION

The results presented here show that mimicking participants enhanced self-consciousness and reduced social anxiety in the target participants. Two different processes that are activated by mimicry may be evoked to explain these results. If, firstly, the aspects of public and private self-consciousness are considered,

it may be that mimicry acts as a self-focused attention method. As is the case in front in a mirror, participants in the experimental group of our study were exposed to somebody who mimicked their own behaviors. For each participant, this exposition is likely to have led the participant to pay more attention to her self-image and may explain why this group had higher scores for self-consciousness. Similarly, George and Stopa (2008) found that participants exposed to a mirror expressed greater self-consciousness. It appears, therefore, that mimicry may have the same properties of self-consciousness activation.

In the current experiment, it was also found that mimicry was associated with a decrease in the social anxiety scores obtained by participants who were mimicked. Such results are possibly explained by the fact that mimicry is a behavioral signal that indicates to counterparts the need of the individual to interact positively with them. People have a pervasive need to form and maintain positive and stable interpersonal relationships (Baumeister & Leary, 1995). In my experiment, participants exposed to a confederate who mimicked their behavior could have inferred that they were able to interact positively with a stranger and, thereby, would be perceived positively by that stranger. Previous researchers have found that mimicry is associated with positive social perception (LaFrance, 1979; Lakin & Chartrand, 2003). Consequently, in my experiment this perception may have reduced the social anxiety expressed by the participant who was made to feel less embarrassed, less intimidated, and less nervous, which are the main dimensions measured by the social anxiety subscale used in this experiment.

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