Being mimicked makes you a prosocial voter
Stel, M.; Harinck, F.

Published in:
Experimental Psychology

Document version:
Publisher's PDF, also known as Version of record

DOI:
10.1027/1618-3169/a000070

Publication date:
2011

Citation for published version (APA):

General rights
Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal

Take down policy
If you believe that this document breaches copyright, please contact us providing details, and we will remove access to the work immediately and investigate your claim.
Would you ever believe that when your nonverbal behavior is imitated, your voting behavior would be affected? We argue it could. People’s voting behavior has a great impact on the government and the political road that is taken. One important factor that has not received empirical investigation is the influence of mimicry, defined as imitating another person’s nonverbal behavior. Research has shown that mimicry enhances prosocial thoughts and behaviors, therefore it is conceivable that it affects people’s ideas about prosocial political parties and even their voting behavior. In this article we address this question by investigating the effects of mimicry on people’s voting behavior.

Mimicry

The occurrence of mimicry is mostly unconscious and has been shown in several behavioral domains, such as postural, vocal, and facial mimicry (Bernieri, 1988; Dimberg, 1990; Webb, 1972). For instance, Chartrand and Bargh (1999) showed that people unconsciously mimic movements of another person’s hands (face rubbing) and feet (foot shaking). This mimicry unconsciously positively influences mimickers’ as well as mimickees’ judgments of and behavior to their interaction partner and other people in general (e.g., Ashton-James, Van Baaren, Chartrand, Decety, & Karremans, 2007; Chartrand & Bargh, 1999; Stel, Van Baaren, & Vonk, 2008; Stel, Van Dijk, & Olivier, 2009; Van Baaren, Holland, Kawakami, & Van Knippenberg, 2004).

One of the consequences of mimicry is that it results in a more prosocial view of the self and in behaving more prosocially toward others. For instance, being mimicked leads mimickees to help their partner more and to donate more money to a charity compared to nonmimickees (Stel et al., 2008; Van Baaren et al., 2004). These effects of mimicry on prosocial behavior are due to a change in the orientation toward others; Mimickers and mimickees become more empathic toward others and define themselves more in terms of interconnectedness with others (i.e., a more prosocial self-construal) (Ashton-James et al., 2007; Stel et al., 2008).

Political Voting

We argue that mimicry will also result in more prosocial voting. We expect prosocial people to be more attracted to left-wing, liberal parties rather than right-wing, conservative parties. Prosocials are concerned with equality and interpersonal harmony, which is related to the political left (Braithwaite, 1998; Caprara, Schwartz, Capanna, Vecchione, & Barbaranelli, 2006). Earlier research (Eisenbergh-Berg, 1976) has shown that people who are more prosocially oriented in their moral reasoning were also more liberal in their political attitudes. Caprara et al. (2006) showed that endorsing a prosocial value like universalism – the understanding, appreciation, tolerance, and protection for the welfare of all people – was related to a left-wing vote. Also, a prosocial attitude, in which equality is valued, is less likely to result in a conservative vote as political conservatism has been shown to be related to the justification of inequality (Jost, Glaser, Kruglanski, & Sulloway, 2003).

In sum, we expect that being mimicked will result in more left-wing rather than right-wing votes. Additionally, as effects of mimicry on prosocial behavior have been shown to run via a change in orientation toward others (Ashton-James et al., 2007; Stel et al., 2008, Van Baaren...
et al., 2004), we expect that mimicry effects on voting for a more or less prosocial party will also be caused by a change in orientation toward others, that is, by mimickees viewing themselves as more connected to others compared to non-mimickees. In a laboratory experiment, we investigated the causal relationship between mimicry and hypothetical voting behavior.

The above hypotheses were tested by having participants interact with a confederate trained to mimic or not to mimic. After the interaction, participants’ orientation toward others was measured. Presented as an unrelated part of the experiment, participants were asked for what party they would vote if political elections were held at that moment. Additionally, to test for possible mediators, we measured participants’ felt empathic connection with the interaction partner and participants’ attitude toward a prosocial issue.

Method

Participants and Design

Eighty-six (80 women) students of Leiden University participated for payment (€2.00). Their age ranged from 17 to 28 years, with an average of 20.88. Participants were randomly assigned to the conditions of a 2 (mimicry: yes vs. no) between-subjects factorial design. There was an equal number of participants in the mimicry and no mimicry condition (of both conditions, n = 43). Males and females were counterbalanced across conditions.

Procedure

The cover story informed participants that we were interested in communication skills. Participants were told that they were going to interact with another participant. After being introduced to each other, it was randomly decided who would fulfill which role in the interaction: the teller or the listener. In actuality, the interaction partner of the participant was a confederate, and the participant was always assigned to the role of teller.

To provide conversation content during the interaction, tellers watched a film fragment of 5 min before the interaction (see Materials). The emotional content of the film fragment was varied in order to show that effects are obtained irrespective of the emotional content during the mimicry interaction. Subsequently, both participants were brought to another room and tellers were asked to tell listeners what they had seen on the video. The confederate (listener) was trained to interact in a nonverbal and verbal standardized way and was naive about the purpose of the study. Additionally, the confederate was trained either to mimic or not to mimic the participant’s movements, while holding the levels of expressiveness, reactions, and attention equal in both conditions (cf. Van Baaren et al., 2004). In both of the groups, the confederate paid attention to specific movements of the tellers’ facial expressions, head movements, bodily posture, and gestures. In the mimicry group, the confederate mimicked these movements; in the no mimicry group, the confederate was trained to show a behavior unrelated to the mimicry movement. The confederate was trained to either mimic or not mimic movements in a natural way, that is, the way movements are spontaneously displayed.

After a 3-min interaction, the listener and teller each went to a different room. Thus, participants were alone when we measured their orientation toward others and their voting behavior. First, participants filled out a questionnaire measuring their felt empathic connection toward the interaction partner, their liking of the interaction partner, their perceived similarity to the interaction partner, and their orientation toward other people in general. Felt empathy for their interaction partner was measured by three items (Cronbach’s alpha = .88) (i.e., Did you feel your interaction partner took perspective of what you were feeling?). The liking of the interaction partner was measured by two items (Cronbach’s alpha = .85) (i.e., Do you like your interaction partner?). The perceived similarity with the interaction partner was measured by one item (i.e., Do you think you have much in common with your interaction partner?). All items were measured on a 7-point scale (1 = not at all to 7 = very much). We measured orientation toward other people by measuring the extent to which participants defined themselves in terms of interconnectedness with others (self-construal, see Materials). We used this measure because it measures the general prosocial feeling of being connected to others in general, and also whether this feeling is crucial in the sense that it is incorporated in their view of the self.

Secondly, participants’ mood was measured to exclude possible mood effects on voting behavior. On 12 emotion scales participants indicated on a 7-point scale how positive or negative they felt during the interaction. The emotions were: tense, enthusiastic, pleased, worried, irritated, angry, confused, cheerful, furious, dreary, happy, and sad. After recoding the negative items, we calculated Cronbach’s alpha for the 12 mood items, which was .88. In the questionnaires some filler questions were added about the specific contents they had talked about, leading participants to believe the study was about communication skills.

Then, the political questionnaire was presented as an unrelated part of the experiment. First, participants were asked (one item, 7-point scale) how they thought about government regulation (which is a left-wing, prosocial issue) for social security, education, health care and third-world aid, and then their voting behavior was measured. Participants were given a listing of all the Dutch political parties. They were asked to indicate for which party they would vote when political elections would be held at that moment. They could do so by checking the party of their choice. They could also choose the option that they would not vote when elections would be held at that moment. Only one option could be checked (either one party or the option “no vote”). The names of the parties (either abbreviated or full) were equal to the way the parties present their names (abbreviation or full name) at the elections. We counted the number of votes for left- and right-wing parties (see Materials). In order to check for potential pre-existing differences between conditions, we asked participants on which political party they voted in the last elections.
We used a funneled debriefing procedure to ask participants if they knew what the experiment was about, whether they noticed something about the behavior of their interaction partner, and whether they thought the two parts of the experiment were related. Finally, they were thanked for participation.

Materials

Film Fragment

Half of the participants watched a positive, the other half a negative film fragment about which they talked during the interaction. The positive video was a fragment from Walt Disney’s Jungle Book, in which a little boy and a bear are dancing and singing a catchy song. The negative video showed a fragment of Sophie’s Choice in which a mother is forced to choose which one of her two children is sent away with a Nazi soldier.

Orientation Toward Others

Participants’ orientation toward others in terms of their self-construal was measured by the Twenty Statement Test (TST) (Kuhn & McPartland, 1954). This is an open-ended questionnaire in which participants are asked to write down 20 statements, describing the self, starting with “I”. Participants’ responses on the TST were coded as independent when they defined themselves by their individual attributes or skills and as interdependent when they defined themselves in relation to others. We calculated the proportion of interdependent statements out of participants’ total amount of statements.

Political Questionnaire

Voting behavior was measured by counting the number of votes for Dutch parties with a left-wing position (GL, SP, PvdA, and CU) or a right-wing position (VVD, CDA, PVV, and SGP). Left- and right-wing voters did not differ on their judgments of their resemblance to the confederate (i.e., judgments of the participants of how similar they are to their interaction partner) and their liking and felt empathy for the confederate, all Fs < 1. Thus, participants’ voting behavior does not seem to be due to differences in resemblance to and liking and empathy for the confederate.

Results

The funneled debriefing procedure indicated that none of the participants were aware that they were or were not being mimicked by their partner, that their partner was a confederate, or that the two parts were in reality related. Content of the interaction (positive vs. negative film fragment) did not produce any significant main effects or interaction effects with mimicry. Therefore, this factor was not included in the analyses reported.

Manipulation Check Pre-Existing Differences

Sixty-three participants (73.26%) indicated having voted in the last election (most of the participants who did not vote during the last election were undergraduates (< 18) during that time and therefore not allowed to vote). The manipulation check showed that participants who previously voted for left- and right-wing parties were equally represented in the mimicry and no mimicry condition, \( \chi^2(1) = 0.64, \ p = .56 \). In the mimicry condition 78.79% \( (n = 26) \) of the previous voters voted for a left-wing party and 21.21% \( (n = 7) \) for a right-wing party; in the no mimicry condition 70.00% \( (n = 21) \) of the previous voters voted for a left-wing party (and 30.00% \( (n = 9) \) for a right-wing party).

Participants who did not vote during the last election were equally distributed among the mimicry and no mimicry condition. A chi square analysis of previously voted (yes vs. no) and mimicry (yes vs. no) showed that both previous voters and previous nonvoters were equally represented in both conditions, \( \chi^2(1) = 0.09, \ p > .99 \). Of the previous voters \( (n = 63) \), 52.38% \( (n = 33) \) were in the mimicry condition; 47.61% \( (n = 30) \) were in the no mimicry condition. Of the previous nonvoters \( (n = 23) \), 43.48% \( (n = 10) \) were in the mimicry condition; 56.52% \( (n = 13) \) were in the no mimicry condition.

Orientation Toward Others

The effects of mimicry on participants’ view of the self as being interconnected with others using self-construal were tested by a univariate analysis of variance (ANOVA) with mimicry as independent and percentage of interdependent statements as dependent variable. Participants who were mimicked were more oriented toward others: Mimickees described themselves more in terms of being interconnected with others using self-construal than nonmimickees \( (\text{M} = 2.33\% \text{ SD} = 29.96) \) than nonmimickees \( (\text{M} = 2.33\% \text{ SD} = 6.32) \), \( F(1, 77) = 4.86, \ p = .03, \eta^2 = .06 \).

Political Preferences

Twenty-four (27.91%) participants indicated they would not vote when elections would be held at that moment. A chi square analysis of current vote (yes vs. no) and mimicry (yes vs. no) showed that both voters and nonvoters were equally represented in both conditions, \( \chi^2(1) = .34, \ p = .47 \). Of the current voters \( (n = 62) \), 53.23% \( (n = 33) \) were in the mimicry condition; 46.77% \( (n = 29) \) were in the no mimicry condition. Of the current nonvoters \( (n = 24) \), 41.67% \( (n = 10) \) were in the mimicry condition; 58.33% \( (n = 14) \) were in the no mimicry condition.
A chi square analysis was conducted on the current voters with mimicry as independent and amount of votes for more and less prosocial parties as dependent variables. This analysis showed that being mimicked affected voting behavior, $\chi^2(1) = 4.18, p = .04$. Participants who were being mimicked voted more often for left-wing parties than for right-wing parties (84.85% of the mimickees: 28 participants out of 33 voted for left-wing parties) compared to participants who were not being mimicked (62.07% of the non-mimickees: 18 out of 29 voted for left-wing parties).

An alternative way of looking at the effects of mimicry on voting behavior is analyzing the number of people who switched their vote after being mimicked or not (i.e., previously voted on a different wing than they currently voted on). We analyzed whether mimicry influenced people to switch their vote from left to right or to switch their vote from right to left. We could not perform the analysis on all participants because part of the participants did not vote in the previous elections (mainly because they were underaged and not allowed to do so ($n = 23$), or chose the option not to vote when the elections were held at the moment we ran the study ($n = 24$). Of the 39 participants who previously voted and currently voted, 46.15% ($n = 18$) switched their vote. The switches were equally represented in the mimicry ($n = 8$) and no mimicry condition ($n = 10$), $\chi^2(1) = .60, p = .79$. A chi square analysis on switching behavior showed an interesting pattern of the results. The analysis, however, lacked power to show significant effects due to the low number of participants, $\chi^2(1) = 1.90, p = .18$. The pattern that can be observed is as follows: Of the participants who switched their political vote, 62.50% of the mimickees switched from a right-wing to a left-wing vote (five out of eight switching mimickees) and 37.50% switched from a left-wing to a right-wing vote (three out of eight switching mimickees); whereas 30.00% of the nonmimickees switched from right to left (3 out of 10 switching nonmimickees) and 70.00% from left to right (7 out of 10 switching nonmimickees). Although this effect did not reach statistical significance, it seems to suggest that nonmimickees switched more often from a left-wing to a right-wing vote than from a right-wing to a left-wing vote compared to mimickees.

In sum, political preferences showed that participants who were being mimicked voted more often for left-wing parties compared to right-wing parties than participants who were not being mimicked. This effect cannot be due to earlier left- or right-wing preferences as participants who previously voted for left- and right-wing parties were equally represented in the mimicry and no mimicry condition. An additional analysis on the participants who switched their vote (46.15% of the participants who previously and currently voted) showed a pattern that nonmimickees switched more often from a left-wing to a right-wing vote compared to mimickees.

**Mediation Analysis**

A logistic regression mediation with mimicry condition as independent variable, orientation toward others as a continuous mediator, and current voting behavior as a dichotomous dependent variable showed that the indirect effect of mimicry on voting behavior via orientation toward others was significant. We followed the procedure of MacKinnon and Dwyer (1993). First, a regression analysis of mimicry on orientation toward others showed that mimicry influenced this orientation toward others, $B = -10.50, t = -2.21, p = .03$. Secondly, a different regression analysis with mimicry as independent and voting behavior as dependent variable showed that mimicry affected voting behavior, $B = -1.23, Wald (1) = 8.01, p = .005$. When including the mediator orientation toward others in this logistic regression analysis of mimicry on voting behavior, the effect of mimicry on voting behavior was reduced, $B = -2.14, Wald (1) = 6.35, p = .01$, and the effect of orientation toward others on voting behavior was significant, $B = -0.04, Wald (1) = 6.03, p = .01$. Finally, the SOBEL test indicated that the indirect effect of mimicry on voting behavior via orientation toward others was significant, $z = 1.62, p = .05$.

**Felt Empathy**

A 2 (mimicry: yes vs. no) univariate ANOVA was conducted using the average of the three items of felt empathic connection with their interaction partner as the dependent variable. Participants who were mimicked felt more empathy for their interaction partner ($M = 4.67, SD = 1.11$) than participants who were not mimicked ($M = 4.02, SD = 1.46$), $F(1, 83) = 5.21, p = .02, \eta^2 = .06$. However, felt empathy for the interaction partner did not mediate the effects of mimicry on voting behavior, SOBEL test: $z = 0.77, p = .44$.

**Political Attitude**

A 2 (mimicry: yes vs. no) univariate ANOVA with judgment on government regulation as dependent variable demonstrated that mimicked participants responded more favorably to government regulation ($M = 5.93, SD = 0.87$) than participants who were not mimicked ($M = 5.36, SD = 1.12$), $F(1, 83) = 6.82, p = .01, \eta^2 = .08$. However, attitude toward government regulation did not mediate the effects of mimicry on voting behavior, SOBEL test: $z = 1.25, p = .21$.

**Mood**

To investigate whether participants’ mood was influenced due to watching a positive or negative video and could provide a possible alternative explanation of our findings, we analyzed whether the video influenced participants’ mood and voting behavior and whether participants’ mood is related to their orientation toward others.

A 2 (mimicry: yes vs. no) × 2 (video: positive vs. negative) ANOVA was conducted with participants’ mood as dependent variable. A main effect of video, $F(1, 81) =$
33.40, \( p < .001, \eta^2 = .29 \), indicated that participants felt more positive in the positive video condition (\( M = 5.60, SD = 0.67 \)) than in the negative video condition (\( M = 4.56, SD = 0.93 \)). There was no main effect of mimicry, nor an interaction effect between mimicry and video on participants’ mood, \( F(1, 81) < 1.09, p > .30, \eta^2 < .13 \). Thus, participants’ mood was influenced by watching the video, but not by being mimicked.

A chi square analysis showed that content of the video (positive vs. negative) did not influence voting behavior, \( \chi^2(1) < .001, p > .99 \). Additionally, a correlation analysis showed that mood was not related to participants’ orientation toward others, \( r = -.06, n = 79, p = .62 \). Thus, video (positive vs. negative) did not influence participants’ voting behavior, nor was participants’ mood (positive vs. negative) related to the extent in which they viewed themselves as being connected to others. Finally, mood was not correlated to felt empathy for the interaction partner, \( r = -.11, n = 85, p = .30 \), nor to attitude toward government regulation, \( r = .01, n = 84, p = .96 \).

Together the analyses showed that although the content of the video affected participants’ mood, video and mood did not affect the variables under investigation and thus could not explain the effects of mimicry on voting behavior. These results are in line with the study of Stel et al. (2008) showing that mimicry influenced participants’ prosocial behavior regardless of which emotions were felt.

**Discussion**

Our research showed that the percentage of left-wing voters was significantly higher in those who just had been mimicked in a conversation compared to those who were not mimicked. We showed, in line with earlier research (Ashton-James et al., 2007; Stel et al., 2008; Van Baaren et al., 2004), that being mimicked changes the mindset of the mimicked person: Mimickees became to view themselves as being more related to others. It is this change in one’s view of the self as being more related with others, and not the connectedness with the specific interaction partner that is responsible for the effects. Thus, due to feeling more connected to others in general, as hypothesized in the introduction, participants voted in a more prosocial, left-wing direction. The analysis on the participants who switched votes seems to suggest that the results are due to nonmimickees switching more often from a left-wing to a right-wing vote compared to mimickees. However, more research is needed to be conclusive about this point.

The present research extends previous literature by showing that mimicry may not only affect people’s superficial attitudes and behaviors, but also attitudes and behaviors that we like to think about as being steady and grounded in our principles. A political vote is often a deliberate choice for a party that one identifies with, or that matches values that one has learned throughout life (Caprara et al., 2006). Our research shows that being mimicked, which is unconsciously experienced, can even influence this type of deliberate behavior that is the result of one’s norms and values.

A limitation of our study might be that the sample was heavily female in the present study. The results are stable when analyzing females only.\(^1\) We do not, however, expect that different results would be obtained if the sample was primarily male. First of all, there was no indication that men and women differed on their orientation toward others and their voting behavior.\(^2\) Secondly, previous research has shown no differential results between men and women on the effects of being mimicked on prosocial attitudes or behaviors (e.g., Ashton-James et al., 2007; Van Baaren, et al., 2004). Therefore, we expect that the participants’ gender did not influence the results of this study.

A critic might argue that being mimicked right before casting his or her vote is an exceptional and artificial situation. However, people nonconsciously mimic and are being mimicked continuously in everyday life, even when other people are strangers (e.g., Bernieri, 1988; Chartrand & Bargh, 1999; Hsee, Hatfield, Carlson, & Chentob, 1990). Therefore, it is highly likely that people, right before they are going to vote, have been mimicked by others (for instance, other people waiting in the row or the people of the voting committee, who check whether you are allowed to vote, just before you cast your vote). Thus, the experimental setting might be considered artificial, but this situation does generalize to the real world.

Future research could investigate the time-span of these mimicry effects on voting behavior. It is possible that the mimicry effects on voting behavior only occur when the voting is within a certain time limit after the mimicry. Earlier studies usually measured the dependent variables directly after the mimicry, whereas in this study, there were approximately 20 min between the mimicry and the political questionnaire. It would be interesting, and of practical interest, to investigate when mimicry effects start to fade and after how much time the mimicry effects will no longer occur. In that sense, our study shows that mimicry even affects behavior that does not directly follow the mimicry, but takes place after some short other tasks have been carried out.

Secondly, it is interesting to investigate whether the source of the mimicry would influence whether the mimicry effects occur or not. One question could be whether being mimicked by an outspoken right-wing person would affect voting behavior in a more right-wing direction or in a left-wing, prosocial direction. Research showing that being

---

\(^1\) Similar results were obtained when data were analyzed for women only: Women who were mimicked described themselves more in terms of being connected with others (\( M = 12.16\%, SD = 28.04 \)) than women who were not mimicked (\( M = 2.39\%, SD = 6.40 \)), \( F(1, 71) = 4.37, p = .04, \eta^2 = .06 \). Additionally, female mimickees voted more often for left-wing parties (86.21\%) than female nonmimickees (60.71\%), \( \chi^2(1) = 4.77, p = .03 \).

\(^2\) Men and women did not differ in orientation toward others, \( F < 1 \), nor in their voting behavior, \( \chi^2(1) = .10, p > .99 \).
mimicked enhances liking for the mimicker (e.g., Chartrand & Bargh, 1999) would indicate that when you are being mimicked by a right-wing person, this enhanced liking for the right-wing person may affect voting behavior in a more right-wing direction. However, our current findings seem to imply that the act of being mimicked leads to a more prosocial view of the self, which influences people’s voting behavior in a more prosocial direction. This issue of the source of the mimicry could be investigated in future studies.

In conclusion, the present findings show that mimicry not only makes you more oriented toward others, being mimicked even makes you a more prosocial voter.

Acknowledgments

The authors thank Eric van Dijk and Carsten De Dreu for their comments on earlier versions of this manuscript.

References


