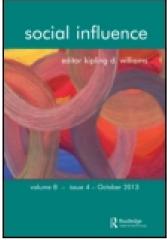
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The power of one: the relative influence of helpful and selfish models

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The power of one: the relative influence of helpful and selfish models

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We compared the extent to which people imitate models who exhibit either helpful or selfish behavior. In Study 1, female shoppers witnessed an individual either help or not help a woman who dropped her books. Women who saw the helpful model were more likely to assist a confederate who dropped a dollar, whereas those who saw the unhelpful model assisted at a rate no different than the control condition. In Study 2, undergraduate women saw a confederate take either one or five pieces of candy after being instructed to take only one. Participants who witnessed the unselfish behavior took fewer pieces for themselves than control condition participants, whereas those who saw the selfish behavior did not differ from the control condition.

Keywords: modeling; helping behavior; selfish behavior; social norms

Refrain from doing ill, for one all powerful reason. We are all too prone to imitate whatever is base and depraved.

- Juvenal, Roman poet (55 AD-127 AD)

How far that little candle throws his beams! So shines a good deed in a weary world.

- William Shakespeare, The Merchant of Venice

Which, if either, is more influential: Witnessing someone who helps another individual or seeing someone who acts in a selfish manner? Do people have a greater impact when performing, in the words of a popular bumper sticker, random acts of kindness? Or are we more likely to influence others when acting, as the saying goes, like the one bad apple that spoils the barrel? The widely recognized human tendency to act in one's self-interest might suggest that selfish behaviors are more readily copied. However, converging evidence from a number of fields suggests that people more readily imitate acts of kindness over selfish acts.

Although selfishness can be defined in more than one way, like other recent investigators, we consider selfish acts to be those that benefit the individual at the expense of others (e.g., Berman & Small, 2012; Forgas & Tan, 2013; Tan & Forgas, 2010). The benefits to the individual can be obvious rewards such as money or pleasure, but they can also include not expending the effort required to help another individual. The expense to others can be seen in direct losses by specific individuals, but it also can be conceived of in terms of losses to the public or to a larger community of people (e.g., less available for everyone else).

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Our prediction that individuals will be influenced by helpful models more than selfish models is consistent with a growing body of evidence that suggests an innate human preference for helpful over selfish acts. Much of this evidence comes from research with infants and toddlers who demonstrate a preference for fairness over unfairness and a dislike for those who are uncooperative and unhelpful (Hamlin, 2013). Nineteen-month old infants in one study held their gaze longer (an indication that the event violated their expectation) when viewing an unfair distribution of treats between two puppets than when viewing an equal distribution (Sloane, Baillargeon, & Premack, 2012). In another investigation, two-year olds had the same sympathetic arousal reaction (as measured by pupil dilation) when either they helped a person in need or the person in need received help from a third party (Hepach, Vaish, & Tomasello, 2012). That is, the toddlers were not simply motivated to help but were motivated to see that the person in need received help. Consistent with these observations, neuroscientists find that performing altruistic acts activates areas of the adult brain associated with reward processing (Rilling et al. 2002). If, as this research suggests, humans innately prefer helpful acts and dislike unfair and selfish acts, then it is reasonable to speculate that people will imitate helpful models more readily than selfish models.

This expectation is also supported by social psychological research on perceived norm violations (Cialdini, Kallgren, & Reno, 1991; Harvey & Enzle, 1981). Exposure to a single instance of socially inappropriate behavior is said to make individuals aware of the norm being violated, which leads to stronger adherence to the socially approved behavior. Because putting one's own interests ahead of the interests of others is generally considered inappropriate (e.g., talking loudly in a library), witnessing a single selfish act should make the norm to act unselfishly salient and lower the likelihood of imitating the inappropriate behavior. Consistent with this reasoning, when participants in one study saw a model toss a piece of paper in an area where no one else had littered, they were less likely to litter themselves than participants in an appropriate control condition (Cialdini, Reno, & Kallgren, 1990).

Drawing from these converging findings, it is reasonable to suggest that people are more prone to imitate helpful acts than selfish acts. Because imitation and modeling play an important role in many theoretical and applied areas of psychology (Bandura, 1986), identifying the relative strength of these different models has potential applications for a wide range of phenomena.

We conducted one field and one lab study to test the hypothesis that individuals will more readily imitate a helpful model than a selfish model. We also looked at the effect of similarity between model and witness. Some researchers have suggested that we are more likely to draw inferences about how to behave from people who are similar to us than from dissimilar others (Rimal & Real, 2005). Another way to say this is that we may ask ourselves, "How do people like me act in this situation?" rather than, "How do most people behave in this situation?" Although intuitively appealing, past research on this notion has been mixed at best (Goldstein, Cialdini, & Griskevicius, 2008; Schultz, Khazian, & Zaleski, 2008). Thus, although we had no specific predictions for the model similarity variable, we thought it was important to include in our design.

Study 1

Participants. A total of 154 women who were walking alone on an elevated walkway into a shopping mall served as participants. Because people may be more likely to imitate those similar to themselves, and because all our models were in their twenties, we limited

participants to women who appeared to be between the ages of 18 and 45. Although the selected age range is admittedly arbitrary, we reasoned that participants and models would all be perceived roughly as "young adults."

Procedure. The study was conducted on an open walkway approximately 10 feet wide and 50 feet long that connects the second floor of a parking structure to the second floor of the mall. People using the walkway must climb five steps from the parking area to the beginning of the walkway. All women walking by themselves from the parking area toward the mall who appeared to be between 18 and 45 were considered potential participants. A woman was included as a participant only if no other people besides the experimenters were on the walkway during the time she walked from the parking area to the mall. Women using cell phones were not included.

Participants randomly assigned to one of the four model conditions saw an interaction between a confederate and a model just as the participant reached the top of the steps and started her trip across the walkway. Approximately 10 feet in front of them, participants saw a woman confederate standing to the side of the walkway seemingly talking on her cell phone. The confederate's arms were full of books and a purse. Participants also saw a model approaching from the other direction. Half the time the model was the same gender as the participant (model-similar condition), and half the time the model was the opposite gender (model-dissimilar condition). We manipulated model similarity in terms of the model's gender because gender is one of the few features people recognize instantly and almost always without ambiguity. Moreover, gender has the advantage of being categorical; either one is or is not the same gender.

Just as the model was a few feet from the confederate, the confederate fumbled and appeared to accidentally drop her books on the ground. In the helpful-model condition, the model said "let me help you," picked up the books, handed the books to the confederate, and continued on his or her way past the participant. In the unhelpful-model condition, the model walked by the confederate and made no effort to help. In this condition, the confederate picked up the books herself before the participant was close enough to help. Participants assigned to the no-model condition saw no one as they entered the walkway.

In all conditions, another woman confederate was stationed in the middle of the walkway. When the participant started across the walkway, the confederate began walking toward the mall. The confederate paced herself so that she was approximately 10–15 feet from the mall entrance when the participant was between 5 and 10 feet behind her. At that point, the confederate reached into her back pocket and pulled out a cell phone. As she removed the phone, a one-dollar bill fell from her pocket. The dollar landed on the walkway behind the confederate. Unless the participant stopped her or alerted her about the dollar, the confederate continued walking through the mall doorway.

A hidden observer blind to condition recorded whether the participant looked at the dollar. A few women did not appear to notice the dollar and were dropped from the study. The observer also recorded the participant's behavior. Participants were assigned one of four helping scores: 1, physically picked up the dollar and handed it back to the confederate; 2, verbally notified the confederate about the dollar; 3, noticed the dollar drop but did nothing about it; or 4, took the dollar for herself.

Results and discussion

An initial examination of the helping scores revealed that a large number of participants fell into each of the four categories. Across all conditions, 44.1% handed the dollar back to

the confederate, 17.6% verbally alerted the confederate, 18.8% noticed the money but chose to say nothing about it, and 19.5% kept the dollar for themselves. This distribution allowed us to examine the dependent measure as a continuous variable. That is, although alerting the confederate about the dollar is a helpful act, retrieving the dollar and handing it to the confederate is a more effortful and helpful gesture. Similarly, not exerting the effort to alert the confederate about the dollar is an example of putting one's own interest ahead of the confederate's. But taking the confederate's money for oneself is a more selfish act.

The mean helping scores for the five conditions are shown in Table 1. We first examined these scores within a 2 (helpful vs. unhelpful model) \times 2 (similar vs. dissimilar model) ANOVA. The control condition was not included in this analysis. We found a significant main effect for model behavior, F(1, 119) = 8.96, p = .003, d = .52. Compared to participants who saw the unhelpful model, participants who saw the helpful model were more likely to help the confederate who dropped a dollar. However, we found no effect for model similarity, F(1, 119) = 2.03, p = .16, or its interaction with model behavior, F(1, 119) = .07, p = .80.

Because model similarity had no apparent effect on the participants' helping behavior, we collapsed the variable and examined helping scores across three conditions: helpful model, unhelpful model, and no model. We found a significant effect for condition, F(2, 151) = 5.64, p = .004, partial $\eta^2 = .069$. Tukey HSD comparisons found that participants in the helpful-model condition (M = 1.76; SD = 1.06) were significantly more likely to help than participants in either the unhelpful-model condition (M = 2.38; SD = 1.25), p = .009, or the no-model condition (M = 2.42; SD = 1.15), p = .03. The latter two conditions did not differ significantly, p = .98.

The results are consistent with our predictions. Compared to the control condition, participants were significantly more likely to help after seeing the helpful model. However, participants who saw the unhelpful model did not differ from the control group. Similarity between model and participant had no effect on helping behavior.

Study 2

Study 2 was designed to replicate the effect uncovered in the first study and to eliminate two possible alternative explanations for the results. First, imitating the helpful behavior in Study 1 called for participants to take action, whereas imitating the selfish response required no action. Although it is not clear how this difference could account for the findings, we created a situation in Study 2 in which imitating a selfish model required participants to take action, whereas taking no action would be the unselfish response. That is, we compared selfish and unselfish models in the second study rather than helpful and unhelpful models. Second, although it seems unlikely that any of our Study 1 participants failed to notice the scene that unfolded a few feet in front of them, it is possible that the helpful model made the act more salient than did the unhelpful model, and this difference

Table 1. Mean helping scores.

	Helpful model	Unhelpful model	No model
Similar model	1.88 (1.01)	2.55 (1.06)	2.42 (1.15)
Dissimilar model	1.63 (1.07)	2.20 (1.42)	

Notes: Standard deviations in parentheses. Number of participants in each condition are as follows: helpful-similar, 32; unhelpful-similar, 30; unhelpful-dissimilar, 30; unhelpful-dissimilar, 30; no model, 31.

in salience might account for the findings. To rule out this possibility, Study 2 models engage in a behavior that was equally attention-grabbing in both conditions.

Method

Participants. A total of 85 female undergraduates served as participants in exchange for class credit.

Procedure. Participants were randomly assigned to one of five conditions. In the four model conditions, a confederate pretending to be another participant entered the lab room shortly after the participant arrived. In the similar-model condition, the confederate was a woman. In the dissimilar-model condition, the confederate was a man. The participant and confederate sat across from one another at a small table. A basket filled with individually wrapped pieces of bite-size candy sat on the table a few feet away and an equal distance from both participants. The experimenter explained that the study was about "information processing" and administered a short task unrelated to the real purpose of the investigation. She explained that she would leave the participants alone in the room to complete the task and that they could simply leave the materials on the table and depart when finished. The experimenter added, "For participating in our study, you may take one piece of candy as you leave," and closed the door behind her.

The confederate paced himself or herself to complete the task before the participant was finished. The confederate then stood and leaned over the candy basket. In the selfishmodel condition, the confederate said, "There are too many to choose from, I can't pick just one," and in five separate motions proceeded to take five pieces of candy from the basket. In the unselfish-model condition, the confederate said, "Which one do I want?" and with an obvious motion picked one piece of candy from the basket. The confederate closed the door behind him or her when exiting, leaving the participant alone in the room. The confederate also noted whether the participant saw him or her taking the candy. In all cases, the participant did appear to watch the confederate take the candy. That is, it should have been apparent to all participants that the confederate either acted selfishly and took more than his or her share of the candy or that the confederate acted unselfishly and took the amount of candy he or she was entitled to.

Participants assigned to the no-model condition completed the task with no confederate present. They were given the same instructions as in the other conditions to take one piece of candy. In all conditions, the experimenter counted the remaining pieces of candy in the basket to determine how many had been taken by the participant.

Results and discussion

Participants who took two or more pieces of candy were coded as committing a selfish act. Participants who took either one or no pieces of candy were coded as having responded unselfishly. The percentage of participants taking extra candy for the five conditions is shown in Table 2. As in Study 1, we first examined the data in the four model conditions. A log-linear analysis as a function of model behavior (selfish vs. unselfish model) and model similarity (similar vs. dissimilar model) revealed a significant main effect for model behavior, χ^2 (1, N = 67) = 4.91, p = .03, $\phi = .27$. Participants who saw the model take five pieces of candy were more likely to take extra candy than participants who saw the model take one piece of candy. However, once again we found no effect for model similarity, χ^2 (1, N = 67) = 3.05, p = .08, $\phi = .21$. Moreover, adding the interaction

Table 2.	Percent	of	participants	taking	extra	candy.

	Unselfish model	Selfish model	No model
Similar model	27.78	50.00	44.40
Dissimilar model	6.25	33.33	

Notes: Number of participants in each condition are as follows: unselfish-similar, 18; selfish-similar, 18; unselfish-dissimilar, 16; selfish-dissimilar, 15; no model, 18.

effect to the analysis did not increase the amount of variance accounted for (entropy measure = .10 without interaction; entropy measure = .09 with interaction).²

We again collapsed the model similarity variable and examined the percentage of people taking extra candy across three conditions. We found an overall effect for condition, χ^2 (2, N=85) = 6.02, p=.05, $\phi=.27$. Participants in the unselfish-model condition (17.6%) were significantly less likely to take more than one piece of candy than participants in either the no-model condition (44.4%), χ^2 (1, N=67) = 4.91, p=.03, $\phi=.27$, or the selfish-model condition (42.4%), χ^2 (1, N=52) = 4.30, p=.04, $\phi=.29$. The no-model and selfish-model conditions did not differ significantly, χ^2 (1, N=51) = 0.00.

The findings from Study 2 parallel those from the first study. Participants were more likely to act in an unselfish manner after witnessing the unselfish model. However, seeing the model act selfishly did not lead participants to act more selfishly when given the chance. Once again, we found no effect for model similarity in the second study.

General discussion

The results from one field investigation and one laboratory investigation support the hypothesis that, at least under certain circumstances, people are more likely to imitate acts of kindness than selfish acts. The findings are consistent with a growing body of research that suggests an innate human preference for fairness and helping over selfish and uncooperative behavior.

Although we found no evidence that our unhelpful (Study 1) or selfish (Study 2) models affected participants' behavior, it would be incorrect to conclude that a single model who engages in socially inappropriate acts cannot influence the behavior of others. Indeed, researchers have demonstrated many instances in which a single offensive act modeled by one individual can alter the actions of those who witness it (e.g., Blanchard, Crandall, Brigham, & Vaughn, 1994; Zitek & Hebl, 2007). Nonetheless, our findings suggest that modeling helpful and kind behaviors are likely to have a larger effect than modeling selfish and unhelpful behavior.

We also looked at the effect of similarity between the witness and the model. As in some previous research, we found no effect for similarity in either of our studies. This is not to say that similarity cannot play a role in imitation. However, at this point, how similarity affects this process is not well understood. One possibility is that similarity may come into play only when the dimension on which the two individuals are similar or dissimilar is relevant for the behavior in question. In our studies, participants may have expected that men and women are equally likely to help others or to act selfishly in the situations we created, thus making the gender of the model irrelevant when our participants were deciding how to respond. We should add that limiting our participants to women also leaves open the question of generalizing the findings to men. Researchers often find gender differences in the amount of and the reasons for helping others (Eagly &

Crowley, 1986). Thus, whether we would find similar results with male participants is a question for future research.

Although the present set of studies succeeded in demonstrating the predicted effect and in eliminating some alternative accounts of the findings, future research should also focus on identifying some of the processes underlying the effect. As described earlier, it is likely that several complementary processes could be contributing to the tendency to imitate helpful acts more readily than selfish acts. Some of these processes may reflect innate human tendencies, as indicated by recent studies in developmental psychology and neuropsychology. However, others are likely to be social psychological processes. In particular, the use of models as a source of informational influence most likely plays a role. Researchers might also examine cognitive processes, such as features of the model or situation that capture the observer's attention or tap into the observer's schemas or scripts.

No doubt it also is the case that there are many other unexamined variables that might affect how individuals respond to helpful and selfish models. These variables include the amount of harm caused by the selfish act, the cost of helping, and whether the selfish act harms a specific individual or the community generally. Additional studies might also examine the effect of specific features of the modeled helpful and selfish acts. For example, in Study 2, our unselfish model drew attention to himself or herself with a statement ("I can't pick just one."), whereas our unselfish model used a question ("Which one do I want?"). Whether this difference had an effect on the participants' behavior remains an open question.

Finally, our findings provide an optimistic message and perhaps a little advice for everyday behavior. Doing the right thing may be more important than most of us recognize. Not only can we make the world a better place by saying a kind word to the weary sales clerk or tipping the street fair musician, but modeling these acts of kindness can also change the power of one into the power of two.

Notes

- 1. Other ways of analyzing the data produced findings consistent with our interpretation, albeit weaker because of lower power due to fewer participants per cell or because a categorical variable was examined rather than a continuous variable. Specifically, a significant effect for condition was found when all five conditions were examined within a one-way ANOVA, F(4, 149) = 3.34, p = .01, partial $\eta^2 = .082$. However, specific cell comparisons revealed a significant difference only between the helpful similar model and the dissimilar unhelpful model, p = .019, Tukey HSD test. When we collapsed the two helpful responses (scores of 1 and 2) and the two selfish responses (scores of 3 and 4) into helping and selfish categories and examined the dependent measure as a categorical variable, we found a pattern consistent with our predictions, with helpful responses by 72.6% of helpful model participants, 52.4% of the unhelpful model participants, and 58.1% of the participants in the control condition. However, the overall effect across the three categories fell short of statistical significance, χ^2 (2, N = 154) = 5.48, p = .06.
- 2. Because taking either one or no pieces of candy seemed equally unselfish, we thought it more appropriate to examine the percentage of transgressors rather than the number of pieces taken. However, when we examined the total number of pieces taken within a 2 (selfish vs. unselfish model) \times 2 (similar vs. dissimilar model) ANOVA, a similar pattern emerged. We found a significant main effect for model behavior, F(1, 63) = 4.94, p = .03, partial $\eta^2 = .073$, but no effect for model similarity, F(1, 63) = 0.85, p = .36 or its interaction with model behavior, F(1, 63) = .00, p = .99.

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