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For my own benefit or for the benefit of others: Reminders of money moderate the effects of  
self- vs. other-related persuasive arguments

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### **Abstract**

Persuading people to follow a behavioral recommendation can be attempted by outlining the negative consequences for those performing this behavior or by outlining the negative consequences for others. Prior research has shown that reminding people of money (e.g., touching money) leads to higher self-sufficiency resulting in more self-focused and less social behavior. Consequently, we show that touching money also affects the persuasiveness of arguments focusing on the self vs. other people. After reading an argument outlining the negative consequences of a behavior (e.g. smoking) for the person performing that behavior (e.g., premature skin aging), participants reported stronger intentions to abstain from that behavior when they had previously touched money compared to a control group. In contrast, following arguments that stressed the negative consequences the behavior had for other people (e.g., children imitating smoking behavior) participants who had touched money reported less inclination for behavioral change compared to a control group.

Key words: money, behavioral intentions, health

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Our relationship with money is denoted by ambivalence. On the one hand, money represents a tool for personal advancement, but on the other hand money can act like an addictive drug (Lea & Webley, 2006). Similarly, people who own a lot of money (i.e., rich people) are met with mixed feelings of admiration and contempt (Cuddy, Fiske, & Glick, 2007) for supposedly being able and competent yet indifferent and cold (Fiske, Cuddy, & Glick, 2002).

Indeed, recent research on the psychological effects of money suggests that merely activating the concept of money (e.g. merely touching money) causes people to increase behavior directed towards their own advancement and benefits and at the same time reduces behavior directed towards other people's needs and benefits. For example, reminders of money led people to spend more time working (Mogilner, 2010) and solving problems (Vohs, Mead, & Goode, 2006, 2008). In contrast, reminders of money led people to be less inclined to donate their time (Pfeffer & Devoe, 2009; Vohs, Mead, & Goode, 2006) or money (Vohs, Mead, & Goode, 2006, 2008) to help others compared with a control group. Further, reminders of money increased the desire to spend time away from other people (Mogilner, 2010, Vohs, Mead & Goode, 2006, 2008) and led to indifference or even reactance towards other people's opinions (Liu, Smeesters, & Vohs, 2012).

In sum, people primed with money differ in their behavioral patterns from people not primed with money. It has been proposed that the difference in behavior is motivated by a money-induced state of self-sufficiency (Vohs, Mead, & Goode, 2006, 2008) and the striving for autonomy (Liu, Smeesters, & Vohs, 2012). The common theme of these money-induced motives (self-sufficiency and striving for autonomy) is that people become more self-oriented when reminded of money and thus shift their focus more towards self-related needs and less towards the needs of other people. Consequently, after being reminded of money, behavior

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should be more motivated by self-relevant reasons and less by other-relevant reasons. We propose that this has direct implications for persuasive appeals directed at changing or inducing a particular behavior. Consequently, because money shifts peoples focus more towards self-related needs, reminders of money should make people more susceptible to arguments proposing that the behavior will bring benefits for the self and less susceptible to arguments proposing benefits for other people. That is to say, reminders of money should enhance intentions to follow a recommended behavior when the argument relates to the message recipients and reduce intentions to follow a recommended behavior when the argument relates to the benefit of other people.

We applied these considerations to social marketing campaigns. Social marketing campaigns are campaigns concerned with promoting behavior that is beneficial for a certain group or society (Kotler & Zaltman, 1971). Examples include campaigns promoting a healthy diet, anti-smoking campaigns or pro-environmental campaigns. In that vein, such campaigns often argue for or against a certain behavior by outlining the consequences for the person performing the behavior (self-related consequences) or the consequences of the behavior for other people (other-related consequences). Social marketing campaigns against smoking, for example, often focus on either outlining the negative consequences of smoking for the smoker (self-related), such as the risk of premature skin aging, or the risk of developing lung cancer; or they focus on the negative consequences for non-smokers (other-related). These could include, for example, the higher risk of children of smokers to eventually become smokers themselves, or the negative impact passive smoking can have on peoples health.

We hypothesize that, compared to a control group, mere reminders of money render self-related arguments more effective and other-related arguments less effective in inducing the respective behavioral intentions.

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## Method

### Design

In order to test our hypothesis that mere reminders of money would reduce the effect of other-related persuasive appeals and enhance the effect of self-related persuasive appeals on behavioral intentions we conducted a study with a 2 (prime: money vs. control) x 2 (self vs. other related appeal) mixed-factorial design. Participants either touched money or paper slips (between participants) before they read arguments of two social marketing campaigns. They were asked to report whether the message convinced them, how much they supported the campaign and how likely they were to follow the behavioral recommendations. In one condition the first campaign presented a self-related argument and the second an other-related argument (within participants), and vice versa in the other condition.

### Participants and Procedure

Sixty-eight psychology students (56 female;  $M_{\text{age}} = 21.51$ ,  $SD = 3.51$ ) participated in the study in exchange for course credit. Participants were told that they would take part in two unrelated studies, one about estimates and the other about advertising campaigns. For the supposed estimate task, participants were led to a transparent glass bowl filled with banknotes in the money condition (an equivalent of about \$1286) or slips of paper of the same size and color as the banknotes in the control condition. Participants were then requested to place their hand inside the bowl and rummage through the money (the slips of paper), allegedly in order to get a feel for the amount of money (number of slips) inside the bowl. They were then asked to give an estimate for the amount of money or the number of slips inside the bowl. After they

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had completed the task the experimenter removed the bowl and handed participants an ostensibly unrelated questionnaire.

The questionnaire contained texts for two social marketing campaigns, one arguing to reduce meat intake and the other arguing against smoking cigarettes. For both campaigns we had designed persuasive arguments containing reasons relating to the wellbeing of other people or the wellbeing of the argument recipient. One message promoting a reduction in meat intake argued that the crop used for the raising of livestock could instead be used to feed starving people in the third world (other-related). The other message promoting a reduction in meat intake argued that high meat intake enhanced the risk of developing illnesses such as pulmonary heart disease (self-related). For the two anti-smoking campaigns, one message argued that smoking would enhance the probability that children would eventually imitate one's behavior and hence had a higher risk of becoming smokers themselves (other-related). The other message argued that smoking fostered premature skin aging (self-related). The self-related and the other-related arguments were designed to be as similar as possible in sentence construction, tone and wording. Each participant received the other-related argument against meat intake and the self-related argument against smoking or vice versa. In order to assess participants' intentions to follow the recommended behavior, participants were asked to indicate on a 7-point scale how persuasive they thought the message was (1 = not at all persuasive, 7 = very persuasive), how likely they were to support the campaign (1 = not at all likely, 7 = very likely) and whether the argument had convinced them to follow the recommended behavior (1 = not at all, 7 = very much so). These three items were combined and averaged to form a global behavioral intention score, Cronbach's  $\alpha = .80$  (meat) and  $\alpha = .82$  (cigarettes). Thus for every participant we had one behavioral intention score for a self-related message and one behavioral intention score for one other-related message.

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In order to control for personal relevance of the arguments, participants indicated how often they generally eat meat (1 = never, 7 = every day) and how many cigarettes they smoked (1 = non at all, 7 = more than 30 per day). Additionally, to eliminate potential alternative explanations for our hypothesized effects, participants were asked to indicate their mood on a 7-point scale (1 = very poor, 7 = very good).

## Results

To test our hypothesis that touching money would reduce behavioral intentions towards other-related persuasive appeals and enhance behavioral intentions towards self-related persuasive appeals, we conducted a mixed between-within subjects ANOVA with type of argument (self- vs. other-related) as within-subjects factor and type of manipulation (money vs. control) as between subject factor. Additionally, we included argument order (self-related first vs. other-related first) to ensure against possible argument order effects.

The analysis revealed a marginally significant main effect for type of message,  $F(1, 64) = 3.24, p = .077, \eta_p^2 = .05$ , indicating that intentions to follow the recommended behavior was slightly higher for other-related messages ( $M = 4.25, SD = 1.23$ ) than for self-related messages ( $M = 3.86, SD = 1.41$ ). More importantly, this main effect was qualified by a significant two-way interaction between type of manipulation (money vs. control) and the type of message (self vs. other),  $F(1, 64) = 8.98, p = .004, \eta_p^2 = .12$  (see Figure 1). As predicted, priming money reduced intentions to perform the recommended behavior after being exposed to other-related arguments compared to a control group ( $M_{\text{money}} = 3.94, SD = 1.23$  vs.  $M_{\text{control}} = 4.53, SD = 1.23$ ),  $F(1, 64) = 4.59, p = .018$ , one-tailed,  $\eta_p^2 = .08$ , but increased intentions to perform the recommended behavior after being exposed to self-related arguments ( $M_{\text{money}} = 4.17, SD = 1.37$  vs.  $M_{\text{control}} = 3.57, SD = 1.41$ ),  $F(1, 64) = 3.02, p = .044$ ,

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one-tailed,  $\eta_p^2 = .05$ . These effects were independent of argument order,  $F(1, 64) = 2.36, p = .129$ ).

Additionally, neither the amount of meat consumed ( $F < 1$ ) nor the amount of cigarettes smoked ( $F < 1$ ) further moderated the hypothesized effect of type of manipulation (money vs. control) on the acceptance of self- versus other-related messages.

In order to ensure against the possibility that the differences in persuasion could be driven by participants' mood we tested whether the money manipulation may have affected participants' mood. No differences were found between the money and the control condition ( $t < 1$ ). Furthermore, including mood as a covariate in our analysis did not alter any of the reported effects.

## Discussion

Merely touching money enhances the intention to follow behavioral recommendations based on self-related arguments of social marketing campaigns and reduces the intention to follow behavioral recommendations based on other-related arguments compared to a control condition. We argue that self-related arguments are perceived as being more convincing for people who had previously touched money because activating the concept of money enhanced self-sufficiency and thereby led to a focus on personal advancement rather than a focus on other people's benefits. In the same vein, arguments focusing on other people's benefits are perceived to be less convincing when the concept of money had been activated.

According to Fishbein & Ajzen (1975) behavioral intentions are dependent on the extent to which one expects the behavior to cause a certain outcome and the subjective evaluation of this outcome. In our study the respective arguments made specific outcomes



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salient. These outcomes were either self-related (e.g., cutting back on meat could improve one's health) or other-related (e.g., cutting back on meat could help to fight hunger in the world). We assume that the money prime caused different evaluations of the respective outcomes which, consequently, caused differences in the intention to follow the recommended behavior. Our assumption is built on previous findings that mere reminders of money (e.g. touching money) function as a psychological resource to master one's environment (Boucher & Kofos, 2012; Zhou, Vohs & Baumeister, 2009). Because greater resources reduce the need to rely on other people and enhance the ability to look out for oneself, it can be argued that reminders of money would lead to greater self-sufficiency by providing resources needed in order to be self-sufficient (see, Zhou, Vohs & Baumeister, 2009). Consequently, one may assume that when others become less relevant for one's own well-being and goal achievement, concerns for others are weighted less when one forms the intention to engage in a behavior or not. In contrast, the negative consequences for oneself become increasingly threatening the more one is relying on oneself. Autonomy and self-sufficiency also imply that one has to take good care of oneself because nobody else will. Thus, negative consequences for oneself seem more of a deterrent compared to people who are less self-reliant. In sum, we argue that activating the concept of money enhanced self-sufficiency and independence and thereby led to a focus on personal advancement rather than a focus on other people's benefits. In turn, behavioral consequences that are in line with personal well-being and advancement are evaluated more favorably and one is more likely to engage in the behavior. Likewise, positive consequences for others are valued less highly.

Within Fishbein & Ajzen's (1975) framework social norms are another important parameter responsible for forming a behavioral intention. With money primes inducing a striving for autonomy and independence (Liu, Smeesters, & Vohs, 2012), recipients may have

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been less willing to submit to social pressure. This alone would, however, only explain the decrease in behavioral intention following other-related arguments. To explain the increase following self-related arguments we have to additionally assume that preventing negative consequences for oneself became more important due to heightened self-focus.

### **Limitations and future research**

As assessed in other studies from our lab (see for example Samochowiec, Wänke & Fiedler, 2010), the sample we used in our study was highly social and liberal in their political views. As such, it can be assumed that social concerns and the wellbeing of others were of great importance to our participants. This explains the advantage of other-related arguments in the control group. It remains to be seen if touching money would further reduce the effectiveness of other-related arguments and further enhance the effectiveness of self-related arguments even in a population that is more concerned with personal achievement and less with social concerns. Our assumption would be in the event of equal effectiveness of other- and self-related arguments (e.g., as a consequence of a sample less invested in social concerns) we would expect a significant advantage for self-related over other-related arguments in the money condition. However, more research is needed to test this assumption.

Further, the design we used to test our hypothesis was a within-subject's design. That is to say, subjects all received one self-related and one other-related argument. The contrast of these arguments may have benefited the reported effects. Future research may investigate the robustness of the reported effects by employing a between subject design.

### **Practical implications**

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We believe our findings have practical implications for the design of social marketing campaigns and, arguably, any other kind of persuasive communication. Generally, other-related arguments should be avoided in a context where people are likely to be reminded of money as reminders of money reduce the persuasiveness of other-related arguments. For example an advertisement addressing other-related benefits printed in an economy magazine, following a stock market report, or positioned next to a bank, should be less persuasive than the same advertisement printed in a cooking magazine, following a romantic comedy or positioned next to a school building.

### **Conclusion**

Taken together our research suggests that, compared to people not reminded of money, people reminded of money are more likely to follow a behavioral recommendation if they see how the recommended behavior would benefit them and less likely to follow a behavioral recommendation if they see how the recommended behavior would benefit people other than themselves.

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Figure 1. Reported intentions of following a recommended behavior after exposure to self-related vs. other-related arguments for people reminded with money and people not reminded of money.

