

Please cite as: Müller, B., van Someren, D. H., Gloudemans, R. T. M., Van Leeuwen, M. L., & Greifeneder, R. (2017). Helping made easy: Ease of Argument Generation Enhances Intentions to Help. *Social Psychology*, 48, 113-121. doi: 10.1027/1864-9335/a000293

Helping made easy: Ease of Argument Generation Enhances Intentions to Help

Correspondence concerning this article should be addressed to Barbara C. N. Müller,
Behavioural Science Institute, Radboud University Nijmegen, P.O. Box 9104, 6525 HR
Nijmegen, The Netherlands. Telephone number: +31 (0) 24 361 5945. E-mail:
B.Muller@bsi.ru.nl

Abstract

Previous work has shown that self-generating arguments is more persuasive than reading arguments provided by others, particularly if self-generation feels easy. The present study replicates and extends these findings by providing evidence for fluency effects on behavioural intention in the realm of helping. In two studies, participants were instructed to either self-generate or read two versus ten arguments about why it is good to help. Subsequently, a confederate asked them for help. Results show that self-generating few arguments is more effective than generating many arguments. While this pattern reverses for reading arguments, easy self-generation is the most effective strategy compared to all other conditions. These results have important implications for fostering behavioural change in all areas of life.

Word count: 118 words

Keywords: fluency; ease-of-retrieval; behavioural intentions; self-persuasion

Helping made easy: Ease of Argument Generation Enhances Intentions to Help

To persuade others to do something, it is considered common to provide arguments (Crano & Prislin, 2006; Wood, 2000), yet often this strategy does not notably increase compliance (e.g., Liberman & Chaiken, 1992). A more successful strategy to elicit certain behaviours is to ask others to self-generate arguments, a technique called self-persuasion (e.g., Greenwald & Albert, 1968; Janis & King, 1954; King & Janis, 1956; for an overview see Aronson, 1999), which has proven to successfully influence both attitudes and behaviour (e.g., Briñol, McCaslin, & Petty, 2012; Müller et al., 2009; Müller et al., 2016). Several reasons are discussed in the literature on why self-persuasion is particularly effective. Firstly, Bem's (1967, 1972) perspective on attitude formation holds that individuals construct their attitudes by observing their own behaviour. As a result, someone who finds him- or herself *formulating* arguments about why it is good to act in a particular way may conclude that this is his or her own stance. Secondly, when arguments are *provided*, individuals are likely to notice that others are trying to persuade them. Such persuasion attempts may be experienced as a threat to their freedom to choose. As a consequence, individuals may engage in self-guarding strategies, including reactance to the suggested behaviour (Brehm, 1966; Crawford, McConnell, Lewis, & Sherman, 2002). Such self-guarding strategies are much less likely to occur when arguments have not been provided, but when arguments are self-generated (Brehm, 1966; Loman, Müller, Oude Groote Beverborg, van Baaren, & Buijzen, 2016). Thirdly, while people are able to detect an external source of influence, and have the tendency to correct for information provided by this external source, it is much more difficult for them to detect an internal source of influence (e.g., Mussweiler & Neumann, 2000). Fourthly, when individuals generate arguments, they tend to come up with arguments that they find the most compelling (Greenwald & Albert, 1968).

When relying on self-persuasion, one could argue that one can never have too much of a good thing, so that the more arguments individuals generate, the better. However, Wänke, Bless, and Biller (1996) observed that participants who generated three arguments favouring or opposing a certain topic changed their attitudes more in line with these arguments than those who generated seven arguments. These findings extended earlier work of Schwarz, Bless, Strack, and colleagues (1991) in the realm of self-perception. These authors observed that participants who recalled few prior instances of assertive behaviour (which is easy) judged their assertiveness as higher than participants who recalled many instances (which is difficult). Presumably, the participants relied on the perceived ease or difficulty of recall, inferring, for instance, the following: if recalling instances feels easy, there are many, suggesting that I am rather assertive; in contrast, if recalling feels difficult, there are only few such instances, suggesting that I am not very assertive. Since its publication, the few-versus-many paradigm introduced by Schwarz, Bless, Strack, and colleagues has been relied on numerous, and the ease-of-retrieval pattern has proven to be a reliable effect of medium size (for meta-analytic evidence, see Weingarten & Hutchinson, 2016; for conceptual reviews, see Greifeneder, Bless, & Pham, 2011; Schwarz, 2004; Wänke, 2013).

That the experience of ease or difficulty may constitute a valuable source of information was first demonstrated in the context of frequency and probability judgments (e.g., Tversky & Kahneman, 1973). Subsequently, ease-of-retrieval effects were observed in the realms of (self-)attitudinal judgments (e.g., Schwarz, Bless, Strack, et al., 1991; Wänke, Böhner, & Jurkowitsch, 1997; Weick & Guinote, 2008) and self-persuasion (e.g., Clarkson, Tormala, & Leone, 2011; Wänke et al., 1996). Recently, it has been further suggested that ease-of-retrieval may inform behavioural intentions (Menon & Raghurir, 2003) and even guide behaviour (Greifeneder, Müller, Stahlberg, Van den Bos, & Bless, 2011b; Müller,

Greifeneder, Stahlberg, Van den Bos, & Bless, 2010; Stone & Fernandez, 2011). For instance, Greifeneder and colleagues (2011b) asked participants to name few or many reasons for why a specific procedure is unfair, and observed that the ease or difficulty associated with naming these reasons guided trustful behaviour.

Interestingly, none of these behavioural studies focused on the generation of reasons to perform a specific behaviour, which is the signature of self-persuasion. This is surprising for at least two reasons. First, behaviour change is a topic of utmost importance across various domains of psychology and beyond, including, for instance, health behaviour or sustainability. Given that (easy) self-generation has proven fruitful with respect to attitudes (e.g., Aronson, 1999), these domains may strongly benefit from knowing whether (easy) self-generation may be effective on the behavioural level, too. Second, a large literature suggests that attitudes do not necessarily translate into behaviour (“attitude-behaviour gap”; e.g., Ajzen & Fishbein, 1977; Bohnet & Schwarz, 2001; Eagly & Chaiken, 1993; Fazio & Towles-Schwen, 1999; Holland, Verplanken, & van Knippenberg, 2002). The powerful effects of (easy) self-generation on attitudes thus need not be mimicked on the behavioural level, and research focusing on the effect of (easy) self-generation on behaviour is needed. Note that we conclude from the attitude-behaviour gap that attitudes do not equal behaviour; it is not implied that the effect of self-generation on behaviour needs to be mediated via attitudes, as will be further discussed in the General Discussion.

Against this background, the present contribution constitutes an extended replication of the evidence reported by Wänke and colleagues (1996). In addition to replicating, the present contribution shifts the focus from attitudes to behaviours, collects data in the field, and assesses non-factorial control groups. Note that we measure, strictly speaking, behavioural intent and not behaviour per se, because the experiment was stopped once participants consented to perform the behaviour. Conclusions about behaviour appear

nevertheless possible, because this measure of intent comes very close to actual behaviour, and because intent has been shown to be a good (Webb & Sheeran, 2006) or even the most important precursor of behaviour (e.g., Ajzen, 1991).

With these goals in mind, in Studies 1 and 2, students in the students-restaurant of the University TOWN/COUNTRY were asked to persuade themselves by generating two, ten, or no arguments (control) for why it is good to help others. To measure helping, students were subsequently asked to provide feedback on an essay by a confederate posing as another student. The dependent variable was whether participants consented to this request. In Study 2, participants in two extra conditions were asked to read either two or ten arguments for why it is good to help, before being approached by a confederate who asked for help. Note that the arguments provided in the reading conditions were the best arguments generated in Study 1, thus constituting a particularly conservative benchmark. For Studies 1 and 2, we predict that generating two compared to ten arguments for why it is good to help will result in stronger helping intentions. This pattern is hypothesised to reverse in Study 2 when participants do not generate but are provided with arguments: here, ten arguments should lead to stronger helping intentions than two arguments.

Study 1

Method

Participants and design. Sixty participants (41 females, $M_{\text{age}}=21.9$ years, $SD=2.27$) were randomly assigned to one of three conditions (ten arguments vs. two arguments vs. control).

Materials and procedure. The experiment took place in the student-restaurant of University TOWN during off-peak hours. In all three conditions, the experiment started with the female confederate taking a seat close to a person sitting alone at a table. In order to avoid selection bias, all persons sitting alone were approached. One minute later, the experimenter

approached both, and asked for participation in a short experiment. If the participant agreed, the confederate also consented, after which the experimenter gave them pen and paper and asked them to write down arguments for “why it is good to help.” To ensure that the confederate was blind to condition, the experimenter did not mention the number of arguments verbally. After returning the arguments, the participant and confederate completed a short questionnaire that gathered their age, gender, whether they were currently a student, whether they currently engaged in paid work or volunteering, and their opinion about debating. The experimenter then thanked them for participating, and left.

After half a minute, the confederate approached the participant with the target request (Burger, Soroka, Gonzago, Murphy, & Somervell, 2001). The confederate mentioned to attend a writing course, that participants of this course were required to write an eight-page essay, and that she had to ask someone unknown to provide feedback on this essay. The confederate presented the essay to the participant and asked whether he or she would be willing to deliver this feedback. In the control condition, the confederate only made the target request to the participant after sitting closely for approximately one minute. In all conditions, the participant’s response to the request (“yes” or “no”) was the dependent variable. Subsequently, the participant was told that the feedback did not actually have to be given. Finally, participants were debriefed and thanked.

Results

In the two arguments condition, 20 participants (91%) generated two arguments, one participant (4.5%) generated four arguments, and one participant (4.5%) five arguments. In the ten arguments condition, 14 participants (78%) generated ten arguments, two participants

(11%) generated nine arguments, and two participants (11%) generated six arguments. In both conditions, no counterarguments were written up.¹

Chi-square analyses indicated that participants in the two arguments condition agreed to provide feedback more often (86.4%) than participants in the ten arguments condition (44.4%), $\chi^2_1 = 7.93, p = .005, \phi_c = .45$, and participants in the control condition (45.0%), $\chi^2_1 = 8.07, p = .005, \phi_c = .44$. The number of participants who agreed to provide feedback did not differ significantly between the ten arguments condition and the control condition, $\chi^2_1 = 0.001, p = .97$ (Figure 1).

Quality. After study completion, six independent judges were asked to rate each of the arguments that were generated on argument quality using a seven-point scale (1 = *very bad argument*; 7 = *very good argument*; ICC = .27, 95% CI [.11, .41]). A MANOVA with condition and position of the argument as factors revealed that the quality of the arguments in the two-arguments condition was not rated as significantly higher ($M=4.77, SD=0.52$) than those in the ten arguments condition ($M=4.43, SD=0.63$), $F(1,200) = 2.96, p = .09$.

Discussion

These results replicate and extend earlier research (e.g., Wänke et al., 1996) by showing that the impact of easy self-generation is not confined to the attitudinal level, but extends to behavioural intentions. To the extent that behavioural change is desired, self-persuasion that feels easy therefore appears as an effective means.

Three potential alternative explanations deserve short discussion. First, one might argue that participants who had to generate ten arguments had a stronger feeling of having helped the experimenter than participants who generated two arguments, which then led to less helping when the confederate made the target request. That would mean that not ease-of-retrieval is responsible for the differences in the two conditions, but the size of the first

¹ Pattern and significance levels remain the same when excluding the participants who did not exactly follow instructions.

request and the feeling of already having done enough after generating ten arguments. However, the foot-in-the-door literature suggests that a successful bigger first request leads, if anything, to higher compliance with the second target request (e.g., Fish & Kaplan, 1974; Freedman & Fraser, 1966; Seligman, Bush, & Kirsch, 1976), based on a more mindless state during the second request (Fennis & Janssen, 2010). This is true irrespective of whether the initial and target requests are rather similar (Fennis & Jansen, 2010; Seligman et al., 1976) or different (Fish & Kaplan, 1974; Freedman & Fraser, 1966). Considerations of “having helped enough already” in the ten arguments condition are therefore unlikely to constitute a valid alternative explanation of the present findings.

Second, assuming that participants had other plans after their stay in the cafeteria, one could argue that those having generated ten compared to two arguments were more likely to be short of time when approached with the second request.

Third, by trend the average argument content quality was higher in the few compared to the many condition. Although this difference did not reach conventional levels of significance, it may deserve attention since we effectively tested the null-hypothesis of no difference. On the conceptual level, differences in content quality are interesting because they constitute an alternative explanation to experiences of ease of difficulty as the underlying mechanism (see Wänke, 2013, for an extended discussion). To be psychologically meaningful, however, such quality differences need to reflect participants’ own perspective, and not the judgments of external raters. This is because participants’ quality ratings likely differ from those of raters who know about all arguments across participants, whereas participants only know their own. To test the content quality alternative explanation, self-ratings are necessary, which we collected in Study 2.

Study 2

Study 2 is to replicate and extend Study 1 by using a variant of the writer-reader paradigm introduced by Wänke and colleagues (1996). These authors asked some participants to generate arguments, and then provided these same arguments to other participants. By means of such a yoked design, the authors effectively ruled out differences in content quality as an alternative explanation for the few-versus-many paradigm (for an extended discussion, see Wänke, 2013; for further supporting evidence, e.g., Greifeneder, Müller, Stahlberg, Van den Bos, & Bless, 2011a; Ruder & Bless, 2003; Tsai & McGill, 2011). Instead of yoking participants, we selected the best ten arguments from Study 1 and presented either two or ten of these to some participants in Study 2. By doing so, we wished to directly compare the potency of self-generation versus argument provision. In particular, whereas Study 1 allows comparing the effectiveness of easy self-generation to a control group, it is silent with respect to other persuasion techniques. By providing arguments in Study 2 we can gauge the effectiveness of easy self-persuasion with respect to a persuasion technique that is particularly common (e.g., Crano & Prislin, 2006). We selected the best arguments from Study 1 to set an especially conservative benchmark for this test. Method

Participants and design. One-hundred-and-fifty participants (90 females, $M_{\text{age}}=22.3$ years, $SD=3.29$) were randomly assigned to a 2 (Argument Number: two vs. ten) x 2 (Argument Type: self-generated vs. provided) between-subjects design, with an additional non-factorial control group.

Materials and procedure. The procedure of Study 2 was identical to Study 1, except for four changes: first, participants were either asked to self-generate arguments, or they were provided with arguments. The provided arguments were selected from Study 1 based on the external raters' quality judgments. In particular, the ten/two arguments that received the highest average rating were selected ($M_{\text{ten}} = 5.78$, $SD_{\text{ten}} = 0.11$; $M_{\text{two}} = 5.92$, $SD_{\text{two}} = 0.12$).

Second, as an added precaution to ensure confederate blindness, the confederate was seated in such a way that she was not looking at the participant directly. Third, as an additional manipulation check, the experimenter surreptitiously measured how much time participants in the generation conditions took to produce the arguments (generation latencies). Fourth, before being debriefed, participants in the generation conditions were asked to rate the quality of each of their arguments on a five-point Likert scale, ranging from *bad* to *good*; additionally, they were asked to rate how difficult it was to generate the arguments on a five-point Likert scale, ranging from *very difficult* to *very easy*.

Results

In the two arguments condition, 30 participants (100%) generated two arguments. In the ten arguments condition, 22 participants (73.3%) generated ten arguments, one participant (3.3%) generated 12 arguments, one participant (3.3%) generated 11 arguments, two participants (6.7%) generated eight arguments, two participants (6.7%) generated seven arguments, and one participant (3.3%) generated three arguments. Furthermore, one participant (3.3%) generated nine arguments why it is good to help, and three counter arguments why it is not good to help. In the two arguments condition, no counterarguments were written up.²

Helping intention. A logistic regression was performed to test whether participants were more likely to help (the dependent variable) as a result of the type of assignment as predictor (self-generated or provided), the number of arguments as predictor (two or ten), and the interaction between the two. Type of assignment (self-generated or provided) significantly predicted helping (OR = 21.00; SE = .73; $p < .05$), as well as the number of arguments (OR = 3.50; SE = .55; $p < .05$). Importantly, both main effects were qualified by the predicted significant interaction (OR = 0.02; SE = .90; $p < .05$; see Figure 2). Participants

² Pattern and significance levels remain the same when excluding the participants who did not exactly follow instructions.

who self-generated two arguments agreed to provide feedback more often than participants who self-generated ten arguments (OR = 9.00; SE = .61; $p < .05$). This pattern reversed when participants were provided with arguments: participants who were provided with ten arguments agreed to provide feedback more often than participants who were provided with two arguments (OR = 3.50; SE = .55; $p < .05$).

Of interest, chi-square analyses showed that participants who self-generated two arguments agreed to provide feedback more often (90.0%) than participants in the control condition (36.7%), $\chi^2_1 = 18.37, p < .001, \phi_c = .55$; the number of participants who agreed to provide feedback did not differ significantly between those who generated ten arguments (33.3%) and those in the control condition, $\chi^2_1 = 0.07, p = .79$. The number of participants who agreed to provide feedback did not differ significantly between those who were provided with ten arguments (60.0%) and those in the control condition, although the results show a trend towards the former being more effective, $\chi^2_1 = 3.27, p = .07$, nor was there a difference between those who were provided with two arguments (30.0%) and the control condition, $\chi^2_1 = 0.30, p = .58$.

Generation latency. Participants who self-generated two arguments required significantly less time ($M=111.50$ s, $SD=118.12$) than participants who self-generated ten arguments ($M=355.77$ s, $SD=117.96$), $F(1,58) = 64.24, p < .001, \eta_p^2 = .53$.

Ease/difficulty. Participants who self-generated two arguments found generating the arguments significantly easier ($M=3.67, SD=0.92$) than participants who self-generated ten arguments ($M=2.50, SD=0.90$), $F(1,58) = 24.59, p < .001, \eta_p^2 = .30$. Generation latency and perceived ease/difficulty were significantly negatively correlated, $r(60) = -.60, p < .01$, reflecting that the less time participants took to self-generate the arguments, the easier they perceived the task. A logistic regression with perceived ease/difficulty as predictor and helping as dependent variable revealed a significant effect, OR = 2.08, SE = .28; $p < .05$.

However, mediation analyses using PROCESS (Hayes, 2012) with number of arguments as predictor, ease/difficulty as mediator, and helping as dependent variable suggest that perceived ease/difficulty does not mediate the effect of the number of arguments on helping, indirect effect -0.15 bootstrapped 95% CI [-1.13, 1.10] based on 5000 bootstrap replications.

Quality. Participants who self-generated two arguments did not rate the quality of their arguments as significantly higher ($M=3.57$, $SD=0.80$) than those who self-generated ten arguments ($M=3.50$, $SD=0.49$), $F(1,58) = 0.17$, $p = .68$. These results suggest that differences in content quality are unlikely to account for the observed behavioural data (see also Wänke, 2013).

Discussion

Study 2 replicates findings of Study 1 by demonstrating that more participants in the few compared to many self-generated arguments condition intended to help. In addition, Study 2 used a variant of the writer-reader design introduced by Wänke and colleagues (1996). While Wänke and colleagues yoked every participant in the generation condition with one participant in the provision condition reader, we selected the best arguments from Study 1 and provided these to the readers in Study 2, with the goal to compare the common persuasion technique of providing arguments with self-generation. Replicating earlier evidence (e.g., Petty & Cacioppo, 1984), provided arguments resulted in a *more-is-better* pattern, that is: reading ten compared to two arguments for helping led to more participants who intended to help. However, reading ten arguments was still less effective than self-generating two arguments. This appears particularly noteworthy because by providing the best arguments in the reading conditions, we have chosen a conservative benchmark. From our perspective, these results powerfully attest to the strength and potential of easy self-generation to evoke behavioural change. We hasten to add, however, that these findings are contingent upon the specific arguments provided by our participants in Studies 1 and 2, and

may therefore not allow for generalised conclusions about the relative strength of fluency versus content quality. Nevertheless, the observed difference in effectiveness between argument provision and self-generation appears impressive.

Interestingly, reading any number of arguments (two or ten) was not more persuasive than having no arguments at all (control condition). One could speculate that being provided with arguments is simply not very effective; after all, in previous research on the strength of provided arguments, mostly marginal effects were reported (e.g., Clarkson et al., 2011; King & Janis, 1956; Petty & Cacioppo, 1984; Weick & Guinote, 2008). Another explanation could be that individuals in these conditions produced self-guarding strategies such as reactance, which can occur when people recognise a persuasion attempt (Brehm, 1966; Crawford et al., 2002). Furthermore, participants might have generated counterarguments against the provided arguments (Tormala, Falces, Briñol, & Petty, 2007).

It should be noted that perceived ease/difficulty predicted helping intention, yet did not prove as a significant mediator of the link between the number of arguments and helping. This may be surprising, but is consistent with recent meta-analytic evidence provided by Weingarten and Hutchinson (2016) who observed a medium-sized effect of the few-versus-many manipulation on the dependent variable, of which, however, only half was mediated by perceived ease of retrieval. The authors discuss various explanations and call for future research on the inferential mechanisms underlying the ease-of-retrieval effect.

General Discussion

Research has shown that self-generation is a particularly powerful path to attitude change (Aronson, 1999), especially when self-generation feels easy (Wänke et al., 1996). The present studies successfully replicate these findings. While the few-versus-many ease-of-retrieval paradigm has been relied on numerous in the literature (e.g., Greifeneder et al., 2011a; Schwarz, 2004; Wänke, 2013; Weingarten & Hutchinson, 2016), field settings such as

the present one are rare. Moreover, few studies have assessed non-factorial control groups, presumably because these harbour a methodological confound. At the same time, non-factorial control groups may allow for insights about whether it is experienced ease or experienced difficulty, or both, that drive the difference between the few versus many conditions. The present studies consistently suggest that experienced ease leads to a different level of helping compared to the control condition. At least in our studies, easy self-generation thus creates an advantage, whereas the experience of difficulty does not result in a disadvantage compared to the control group.

The present studies extend prior self-persuasion findings from the realm of attitudes to behavioural intentions. In particular, we show that participants are particularly likely to help a stranger after self-generating arguments for why it is good to help felt easy. In contrast to the success of easy self-generation, *reading* any number of arguments resulted in helping intentions on the level of the control condition. Together, these findings suggest that easy self-generation is a powerful means for guiding behaviour and may thus be of interest to researchers in very different areas of psychology and beyond.

Strictly speaking, the present experiments measured intent and not behaviour. However, the two were intimately linked in our studies, because what kept participants from enacting their intentions was the confederate who stopped proceedings after intent was measured. Hence, though we measured intent, conclusions about behaviour appear justified. This is interesting because despite the enormous amount of research on retrieval or generation fluency on frequency or attitudes (see Wänke, 2013; Weingarten & Hutchinson, 2016), there is a scarcity of evidence that links fluency to intention (e.g., Menon & Raghuram, 2003) or actual behaviour (e.g., Greifeneder et al., 2011c; Müller et al., 2010; Stone & Fernandez, 2011).

An open question relates to the processes that underlie the current documented effect on behavioural intention. One way to conceptualize this process is in terms of attitudes, assuming that self-generating reasons for helping leads to the formation of an attitude towards helping, which may then translate into behaviour, either in a more deliberate fashion via intentions (e.g., Ajzen & Fishbein, 1977), or a more automatic fashion (e.g., Fazio, 1990). Because we did not assess attitudes, we cannot formally test this account. However, for the same reason, attitudes may not have been very accessible, which is a necessary precursor in both models (e.g., Ajzen & Fishbein, 1977; Fazio, Powell, & Williams, 1989).

A second way in which effects on behaviour have been conceptualized is in terms of priming (e.g., Dijksterhuis & Bargh, 2001). From this perspective, both self-generation and provision increases the accessibility of arguments, and accessible content guides behavioural responses. Note, however, that such a priming perspective would predict more helping when many compared to few arguments are accessible, for writers and readers alike. This, however, is not what we observed in Study 2.

The third way follows the logic of Schwarz' (2011) "feelings-as-information" account, in that participants are assumed to implicitly ask themselves "Should I provide help?" and infer the answer to this question based on their cognitive feelings. In particular, if recalling arguments is easy, participants may infer that there are many reasons to help, and thus engage in helping; in contrast, if recalling is difficult, participants may come to the conclusion that there are overall few reasons to help, and thus not engage in helping. Note that mediation via attitudes is not needed for this explanation to hold. This allows for the intriguing conclusion that ease-of-retrieval effects on behaviour need not be weaker than ease-of-retrieval effects on attitudes. Interestingly, to draw inferences, individuals need to hold naive theories about what experienced ease or difficulty means in the respective context (e.g., Unkelbach & Greifeneder, 2013). In the tradition of Tversky and Kahneman (1973), the

above example employs a naive theory that links fluency with frequency, that is, experiences of ease or difficulty with the existence of many versus few cognitions (for a direct test of this naive theory, e.g., Winkielman & Schwarz, 2001). Other naive theories link fluency to confidence (e.g., Wänke & Bless, 2000) or thought complexity (Briñol, Petty, & Tormala, 2006). For instance, when recall feels easy (difficult), individuals may infer that they can (cannot) be confident in the recalled content information. Theoretically, each of these naive theories, or even multiple ones, may account for the observed pattern of results. Which naïve theory is recruited in a specific situation may also depend on contextual variables, such as the question being asked.

Conclusion

The present findings highlight the potential of self-generation techniques, especially if self-generation is fluent. They thus add to a long and fruitful tradition of research on self-persuasion (e.g., Greenwald & Albert, 1968; Janis & King, 1954; King & Janis, 1956), and demonstrate important implications for all domains in which behavioural change is desired. Apparently, what is easily self-produced convinces the most.

Acknowledgement

We would like to thank B. P. for providing helpful comments on earlier drafts of this article.

References

- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, *50*, 179-211. doi:10.1016/0749-5978(91)90020-T
- Ajzen, I., & Fishbein, M. (1977). Attitude-behavior relations: A theoretical analysis and review of empirical research. *Psychological Bulletin*, *84*, 888-918. doi:10.1037/0033-2909.84.5.888
- Anderson, N. H. (1981). *Foundations of information integration theory*. New York, NY: Academic Press.
- Aronson, E. (1999). The power of self-persuasion. *American Psychologist*, *54*, 875-884. doi:10.1037/h0088188
- Bem, D. J. (1967). Self-perception: An alternative explanation of cognitive dissonance phenomena. *Psychological Review*, *74*, 183-200. doi:10.1037/h0024835
- Bem, D. J. (1972). Self-perception theory. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 6, pp. 1-63). New York, NY: Academic Press. doi:10.1016/S0065-2601(08)60024-6
- Brehm, J. W. (1966). *A theory of psychological reactance*. New York, NY: Academic Press.
- Briñol, P., McCaslin, M. J., & Petty, R. E. (2012). Self-generated persuasion: Effects of the target and direction of arguments. *Journal of Personality and Social Psychology*, *102*, 925-940. doi:10.1037/a0027231
- Briñol, P., Petty, R. E., & Tormala, Z. L. (2006). The malleable meaning of subjective ease. *Psychological Science*, *17*, 200-206. doi:10.1111/j.1467-9280.2006.01686.x
- Burger, J. M., Soroka, S., Gonzago, K., Murphy, E., & Somervell, E. (2001). The effect of fleeting attraction on compliance to requests. *Personality and Social Psychology Bulletin*, *27*, 1578-1586. doi:10.1177/01461672012712002

- Clarkson, J. J., Tormala, Z. L., & Leone, C. (2011). A self-validation perspective on the mere thought effect. *Journal of Experimental Social Psychology, 47*, 449-454.
doi:10.1016/j.jesp.2010.12.003
- Crano, W. D., & Prislin, R. (2006). Attitudes and persuasion. *Annual Review of Psychology, 57*, 345-374. doi:10.1146/annurev.psych.57.102904.190034
- Crawford, M. T., McConnell, A. R., Lewis, A. C., & Sherman, S. J. (2002). Reactance, compliance, and anticipated regret. *Journal of Experimental Social Psychology, 38*, 56-63. doi:10.1006/jesp.2001.1481
- Dijksterhuis, A., & Bargh, J. A. (2001). The perception-behavior expressway: Automatic effects of social perception on social behaviour. *Advances in Experimental Social Psychology, 33*, 1-40. doi:10.1016/s0065-2601(01)80003-4
- Eagly, A. H., & Chaiken, S. (1993). *The psychology of attitudes*. Orlando, FL: Harcourt Brace Jovanovich College Publishers.
- Fazio, R. H. (1990). Multiple processes by which attitudes guide behavior: The MODE model as an integrative framework. In M. P. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 23, pp. 75-109). New York, NY: Academic Press.
- Fazio, R. H., Powell, M. C., & Williams, C. J. (1989). The role of attitude accessibility in the attitude-to-behavior process. *Journal of Consumer Research, 16*, 280-288.
doi:10.1086/209214
- Fazio, R. H., & Towles-Schwen, T. (1999). The MODE model of attitude-behavior processes. In S. Chaiken & Y. Trope (Eds.), *Dual process theories in social psychology* (pp. 97-116). New York, NY: Guilford.
- Fennis, B. M., & Janssen, L. (2010). Mindlessness revisited: Sequential request techniques foster compliance by draining self-control resources. *Current Psychology, 29*, 235-246. doi:10.1007/s12144-010-9082-x

- Fish, B., & Kaplan, K. J. (1974). Does a “foot-in-the-door” get you in or out? *Psychological Reports, 34*, 35-42. doi:10.2466/pr0.1974.34.1.35
- Freedman, J. L., & Fraser, S. C. (1966). Compliance without pressure: the foot-in-the-door technique. *Journal of Personality and Social Psychology, 4*, 195-202.
doi:10.1037/h0023552
- Greenwald, A. G., & Albert, R. D. (1968). Acceptance and recall of improvised arguments. *Journal of Personality and Social Psychology, 8*, 31-34. doi:10.1037/h0021237
- Greifeneder, R., & Bless, H. (2007). Relying on accessible content versus accessibility experiences: The case of processing capacity. *Social Cognition, 25*, 853-881.
doi:10.1521/soco.2007.25.6.853
- Greifeneder, R., Bless, H., & Pham, M. T. (2011a). When do people rely on affective and cognitive feelings in judgment? A review. *Personality and Social Psychology Review, 15*, 107-141. doi:10.1177/1088868310367640
- Greifeneder, R., Müller, P., Stahlberg, D., Van den Bos, K., & Bless, H. (2011b). Beyond procedure's content: Cognitive subjective experiences in procedural justice judgments. *Experimental Psychology, 58*, 341-352. doi:10.1027/1618-3169/a000101
- Greifeneder, R., Müller, P., Stahlberg, D., Van den Bos, K., & Bless, H. (2011c). Guiding trustful behavior: The role of accessible content and accessibility experiences. *Journal of Behavioral Decision Making, 24*, 498-514. doi:10.1002/bdm.705
- Hayes, A. F. (2012). PROCESS: A versatile computational tool for observed variable mediation, moderation, and conditional process modeling [White paper]. Retrieved from <http://www.afhayes.com/public/process2012.pdf>
- Holland, R. W., Verplanken, B., & van Knippenberg, A. (2002). On the nature of attitude-behavior relations: The strong guide, the weak follow. *European Journal of Social Psychology, 32*, 869-876. doi:10.1002/ejsp.135

- Janis, I. L., & King, B. T. (1954). The influence of role-playing on opinion change. *Journal of Abnormal and Social Psychology, 49*, 211-218. doi:10.1037/h0056957
- King, B. T., & Janis, I. L. (1956). Comparison of the effectiveness of improvised versus non-improvised role-playing in producing opinion changes. *Human Relations, 9*, 177-186. doi:10.1177/001872675600900202
- Liberman, A., & Chaiken, S. (1992). Defensive processing of personally relevant health messages. *Personality and Social Psychology Bulletin, 18*, 669-679. doi:10.1177/0146167292186002
- Loman, J. G. B., Müller, B. C. N., Oude Groote Beverborg, A., van Baaren, R. B., & Buijzen, M. A. (2016). *Self-persuasion in media messages: Reducing alcohol consumption among students with open-ended questions*. Manuscript submitted for publication.
- Menon, G., & Raghurir, P. (2003). Ease-of-retrieval as an automatic input in judgments: A mere-accessibility framework?. *Journal of Consumer Research, 30*, 230-243. doi:10.1086/376804
- Müller, B. C. N., van Baaren, R. B., Ritter, S. M., Woud, M. L., Bergmann, H., Harakeh, Z., ... Dijksterhuis, A. (2009). Tell me why...: The influence of self-involvement on short term smoking behaviour. *Addictive Behaviors, 34*, 427-431. doi:10.1016/j.addbeh.2008.12.016
- Müller, B. C. N., Ritter, S. M., Glock, S., Dijksterhuis, A., Engels, R. C. M. E., & van Baaren, R. B. (2016). Smoking-related warning messages formulated as questions positively influence short-term smoking behaviour. *Journal of Health Psychology, 21*, 60-68. doi:10.1177/1359105314522083
- Müller, P., Greifeneder, R., Stahlberg, D., Van den Bos, K., & Bless, H. (2010). Shaping cooperation behavior: The role of accessibility experiences. *European Journal of Social Psychology, 40*, 178-187. doi:10.1002/ejsp.632

- Petty, R. E., & Cacioppo, J. T. (1984). The effects of involvement on responses to argument quantity and quality: Central and peripheral routes to persuasion. *Journal of Personality and Social Psychology*, *46*, 69-81. doi:10.1037/0022-3514.46.1.69
- Rothman, A. J., & Schwarz, N. (1998). Constructing perceptions of vulnerability: Personal relevance and the use of experiential information in health judgments. *Personality and Social Psychology Bulletin*, *24*, 1053-1064. doi:10.1177/01461672982410003
- Ruder, M., & Bless, H. (2003). Mood and the reliance on the ease of retrieval heuristic. *Journal of Personality and Social Psychology*, *85*, 20-32. doi:10.1037/0022-3514.85.1.20
- Schwarz, N. (2004). Meta-cognitive experiences in consumer judgment and decision making. *Journal of Consumer Psychology*, *14*, 332-348. doi:10.1207/s15327663jcp1404_2
- Schwarz, N. (2011). Feelings-as-information theory. In P. V. Lange, A. W. Kruglanski, & E. T. Higgins (Eds.), *Handbook of theories of social psychology* (Vol. 1, pp. 289-308). Washington, D.C.: SAGE.
- Schwarz, N., Bless, H., & Bohner, G. (1991). Mood and persuasion: Affective states influence the processing of persuasive communications. *Advances in Experimental Social Psychology*, *24*, 161-199. doi:10.1016/S0065-2601(08)60329-9
- Schwarz, N., Bless, H., Strack, F., Klumpp, G., Rittenauer-Schatka, H., & Simons, A. (1991). Ease of retrieval as information: Another look at the availability heuristic. *Journal of Personality and Social Psychology*, *61*, 195-202. doi:10.1037/0022-3514.61.2.195
- Schwarz, N., & Bohner, G. (2001). The construction of attitudes. In A. Tesser & N. Schwarz (Eds.), *Blackwell handbook of social psychology: Intraindividual processes* (pp. 436-457). Oxford, UK: Blackwell.

- Seligman, C., Busch, M., & Kirsch, K. (1976). Relationship between compliance in the foot-in-the-door paradigm and size of first request. *Journal of Personality and Social Psychology*, *33*, 517-520. doi:10.1037/0022-3514.33.5.517
- Stone, J., & Fernandez, N. C. (2011). When thinking about less failure causes more dissonance: The effect of elaboration and recall on behavior change following hypocrisy. *Social Influence*, *6*, 199-211. doi:10.1080/15534510.2011.618368
- Tormala, Z. L., Falces, C., Briñol, P., & Petty, R. E. (2007). Ease of retrieval effects in social judgment: The role of unrequested cognitions. *Journal of Personality and Social Psychology*, *93*, 143-157. doi:10.1037/0022-3514.93.2.143
- Tsai, C.I., & McGill, A. L. (2011). No pain, no gain? How construal level and fluency affect consumer confidence. *Journal of Consumer Research*, *37*, 807 – 821 .
- Tversky, A., & Kahneman, D. (1973). Availability: A heuristic for judging frequency and probability. *Cognitive Psychology*, *5*, 207-232. doi:10.1016/0010-0285(73)90033-9
- Unkelbach, C. (2007). Reversing the truth effect: Learning the interpretation of processing fluency in judgments of truth. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, *33*, 219-230. doi:10.1037/0278-7393.33.1.219
- Unkelbach, C., & Greifeneder, R. (2013). A general model of fluency effects in judgment and decision making. In C. Unkelbach & R. Greifeneder (Eds.), *The experience of thinking: How the fluency of mental processes influences cognition and behavior* (pp. 11-32). Hove, United Kingdom: Psychology Press.
- Wänke, M. (2013). Almost everything you always wanted to know about ease-of-retrieval effects. In C. Unkelbach & R. Greifeneder (Eds.), *The experience of thinking: How the fluency of mental processes influences cognition and behavior* (pp. 151-169). Hove, United Kingdom: Psychology Press.

- Wänke, M., & Bless, H. (2000). The effects of subjective ease of retrieval on attitudinal judgments: The moderating role of processing motivation. In H. Bless & J. P. Forgas (Eds.), *The message within: The role of subjective experience in social cognition and behavior* (pp. 143-161). Philadelphia, PA: Psychology Press.
- Wänke, M., Bless, H., & Biller, B. (1996). Subjective experience versus content of information in the construction of attitude judgments. *Personality and Social Psychology Bulletin*, *22*, 1105-1113. doi:10.1177/01461672962211002
- Wänke, M., Bohner, G., & Jurkowitsch, A. (1997). There are many reasons to drive a BMW: Does imagined ease of argument generation influence attitudes? *Journal of Consumer Research*, *24*, 170-178. doi:10.1086/209502
- Webb, T. L., & Sheeran, P. (2006). Does changing behavioral intentions engender behavioral change?: A meta-analysis of the experimental evidence. *Psychological Bulletin*, *132*, 249-268. doi:10.1037/0033-2909.132.2.249
- Weick, M., & Guinote, A. (2008). When subjective experiences matter: Power increases reliance on the ease of retrieval. *Journal of Personality and Social Psychology*, *94*, 956-970. doi:10.1037/0022-3514.94.6.956
- Weingarten, E., & Hutchinson, J. W. (2016). *Does ease mediate the ease-of-retrieval effect? A meta-analysis*. Unpublished manuscript, Marketing Department, Wharton School of the University of Pennsylvania, Philadelphia, PA.
- Winkielman, P., & Schwarz, N. (2001). How pleasant was your childhood? Beliefs about memory shape inferences from experienced difficulty of recall. *Psychological Science*, *12*, 176-179. doi:10.1111/1467-9280.00330
- Wood, W. (2000). Attitude change: Persuasion and social influence. *Annual Review of Psychology*, *51*, 539-570. doi:10.1146/annurev.psych.51.1.539

Figures

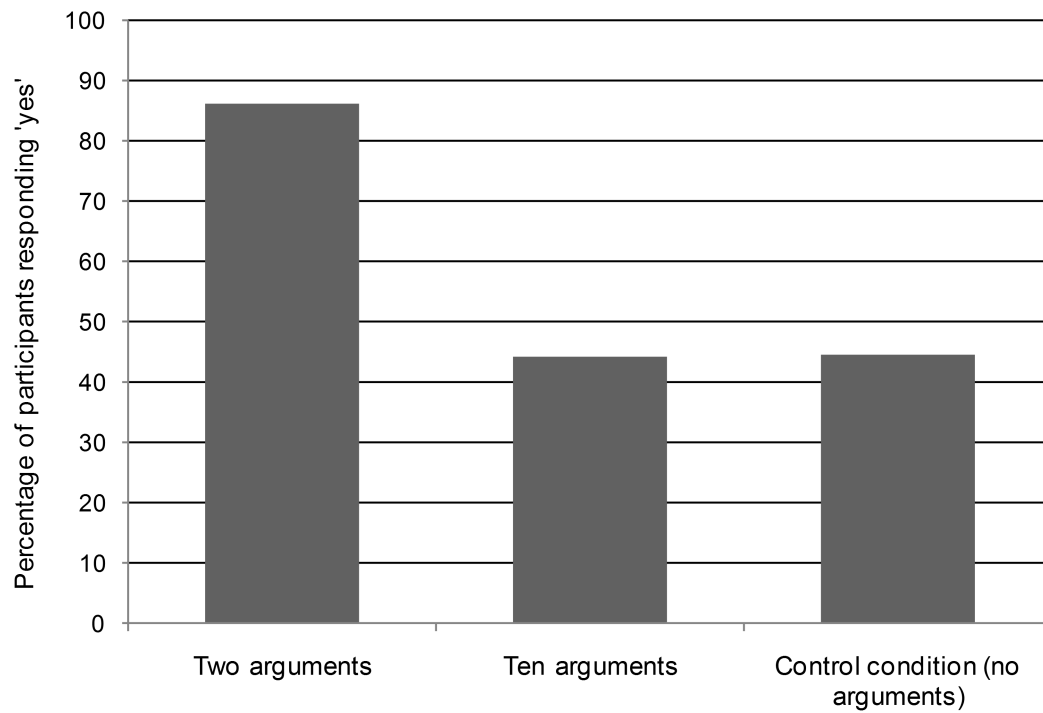


Figure 1. The percentage of participants who responded “yes” to a feedback request after generating two, ten, or no arguments why it is good to help (Study 1).

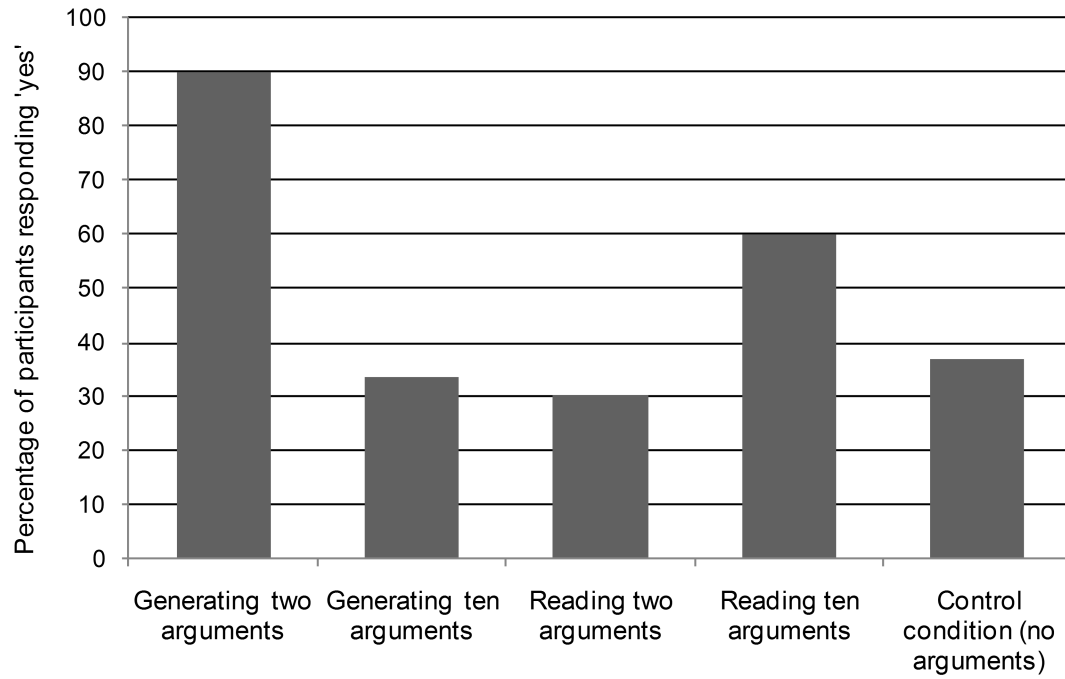


Figure 2. The percentage of participants who responded “yes” to a feedback request after generating two or ten arguments, reading two or ten arguments, or not generating or reading arguments why it is good to help (Study 2).