

ORIGINAL ARTICLE

## Comparing the Impact of Explicit and Implicit Resistance Induction Strategies on Message Persuasiveness

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*Traditional strategies that help people to resist persuasive communication, such as warnings of persuasive intent, are explicit, effortful, and require cognitive capacity. Typically, however, message recipients are unable or unmotivated to allocate their cognitive resources to adopting resistance strategies that help them withstand persuasive messages. Therefore, this study investigates a more implicit, persuasive intent priming strategy that thwarts the need for cognitive capacity. In two experiments, we demonstrate that compared with a no-strategy control condition, a persuasive intent prime is as effective as a traditional persuasive intent forewarning strategy in reducing the influence of heuristic cues in advertising. Interestingly, we show that the persuasive intent prime requires less cognitive resources than the persuasive intent forewarning strategy.*

**Keywords:** Persuasive Communication, Resistance, Advertising, Heuristic Cues, Forewarning, Priming.

doi:10.1111/jcom.12118

Many persuasive communications include basic persuasive elements—heuristic cues—that reinforce the swaying power of the message. These heuristic cues vary from using expert (e.g., Biswas, Biswas, & Das, 2006) or celebrity (e.g., Erdogan, 1999) endorsers, increasing the number (rather than the quality) of arguments (e.g., Petty & Cacioppo, 1984), and referring to a product's country of origin (e.g., Verlegh, Steenkamp, & Meulenberg, 2005) to including normative expressions, such as “85% of customers are satisfied with the product” (e.g., Axsom, Yates, & Chaiken, 1987). How persuasive are these cues? Do we invariably say “yes” to messages that include such cues? Alternatively, are there conditions in which we are able to successfully

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resist the impact of such cues? If so, how effortful and deliberate does this resistance process need to be? These questions are central to this research.

Our point of departure is the established finding showing that heuristic cues typically function as basic rules of thumb or shortcuts in guiding decision making (e.g., “if an expert says so, then it must be true,” “wine from France must be good,” or “if other customers like the product, then I probably like it as well”). This function is particularly apparent when people are unmotivated or unable to engage in deliberate, reflective, and effortful processing, which is quite ubiquitous with respect to responding to persuasive communications (e.g., Chaiken, Liberman, & Eagly, 1989; Kruglanski & Thompson, 1999; Petty, Cacioppo, & Schumann, 1983). Under these conditions, the use of these heuristic cues as decision rules has been described as a largely implicit, automatic, impulsive, and unintentional process that unfolds outside of the message recipient’s awareness (e.g., Bargh & Ferguson, 2000; Devine, 1989; Dovidio, Evans, & Tyler, 1986; Janiszewski, 1988). As a result, the outcome—persuasion—is frequently the product of a largely unconscious, automatic process (e.g., Bargh, 2004; Cialdini, 1993). Interestingly, although this view is not uncontested, this mode of decision making appears to be the rule rather than the exception, as researchers estimate that approximately 95% of our day-to-day decision making is governed by these impulsive, unconscious processes rather than by deliberative processes (Bargh, 2004; Chartrand, 2005; Dijksterhuis, Smith, van Baaren, & Wigboldus, 2005).

If this view is accurate and if the bulk of present-day persuasive messages indeed feature a plethora of heuristic cues, then the question of why we are not invariably swayed by these persuasion attempts becomes pertinent, and we inquire as to why we do not consistently yield to all requests or offers that are presented to us by advertisers, fundraisers, or politicians. In other words, given the background presented, how can we explain that we are frequently able to resist the lure presented by advertising and other forms of persuasive communication?

Although the prevailing view in the literature is that saying *yes* is easier than saying *no* (Gilbert, 1991; Gilbert, Tafarodi, & Malone, 1993), the present paper aims to supplement this perspective by arguing that this is only part of the story and that in extension of the previous research, the effortless, impulsive, and automatic resistance of heuristic cues in persuasive messages can still be found in the recipient’s toolbox and can be mobilized by an efficient priming strategy that activates the concept of “persuasive intent.” We will demonstrate that this implicit priming strategy requires fewer cognitive resources than more “traditional,” explicit warning strategies that point people to the persuasive intent of a message even to the extent that this strategy is as resource efficient as when no resistance is observed. As a result, the presented priming strategy makes it possible to combat the unconscious effects of heuristic-based advertising cues with processes that are unconscious themselves; therefore, this strategy obviates the need to mobilize substantial cognitive resources to actively and deliberately resist conversion.

In the following section, after delineating the “playing field,” we will discuss previous research suggesting that resistance to persuasion is typically conceived of as a

deliberate, effortful process. Next, we will outline the contours of a resistance strategy that taps into less effortful, more automatic processes of resisting persuasion, and we will report two experiments testing our notions.

### Resisting persuasion

In defining resistance, Knowles and Linn (2004) distinguish between motivated resistance and outcome resistance, which is referred to as “the antithesis of persuasion” (Knowles & Linn, 2004, p. 3), or the lack of, or even negative, attitude change in response to persuasive attempts (cf., Sagarin, Cialdini, Rice, & Serna, 2002). Motivated resistance, on the other hand, acknowledges the fact that people are armed with resistance strategies that they may employ as a counterforce to combat even well-designed campaigns. Within this definition, strategies that people use to resist persuasion are perceived as mediators explaining the relationship between the persuasive attempt and the outcome. In the present research, we focus on resistance as an outcome such that it changes people’s perception of the persuasiveness of the message. Hence, in our definition we do not equate resistance with the lack of persuasion but propose that the lack of, or decrease in persuasion (e.g., decreased perceived message persuasiveness, attitude change, and/or behavioral intention) is typically a consequence of resistance processes.

There are various ways in which people succeed in resisting a persuasive attempt, ranging from actively generating objections and concerns regarding the gist of a message (Wright, 1975; Zuwerink-Jacks & Cameron, 2003; Zuwerink & Devine, 1996) to derogating the source of the message (Zuwerink-Jacks & Cameron, 2003; Sinclair & Kunda, 1999; Wright, 1973) or bolstering their existing attitude toward the issue (Abelson, 1959; Lydon, Zann, & Ross, 1988; Sherman & Gorkin, 1980). Notably, research shows that these resistance responses can be instigated by various strategies. A well-known and often applied strategy that helps people to resist persuasion is forewarning of the upcoming persuasive attempt (Freedman & Sears, 1965). Previous research has focused on two types of message forewarning: (a) warnings that inform message recipients about the actual topic and position that is taken in the persuasive message (“e.g., you are going to read a message advocating the use of condoms”) or (b) warnings that convey the persuasive intent of the upcoming message (“you are about to be exposed to a message that will try to influence your thoughts and opinions”). In terms of fostering resistance, both types of warnings have been found to be moderately effective (Benoit, 1998) and are argued to activate distinct psychological processes. Warning people about the advocated topic and position is reminiscent of classic inoculation approaches (e.g., Banas & Rains, 2010; Wigley & Pfau, 2010) because they increase the *ability* to resist by enabling message recipients to arm themselves by carefully preparing counterarguments prior to message exposure, thus helping them to resist such messages (Freedman & Sears, 1965; Petty & Cacioppo, 1977). Warnings that explicitly state the persuasive intent of a message cannot invoke such a mechanism because the recipient in this case does not know the actual topic of the message in advance. However, research suggests that

warning people that someone intends to influence them increases their *motivation* to resist by promoting feelings of psychological reactance (Brehm, 1966; Fukada, 1986; Hass & Grady, 1975). That is, being warned of persuasive intent causes people to feel restricted in their freedom to think and feel what they want, and they are consequently motivated to actively restore this freedom. Reactance then produces resistance to persuasion through a similar process of counterarguing the message, albeit of a more spontaneous “online” nature (because recipients have not had the opportunity to carefully prepare them in advance). Thus, both types of forewarning promote resistance through active counterarguing, either before receiving a persuasive message or during or after exposure to the message. However, what is the nature of this resistance response?

Research converges that this process must be viewed as a form of active self-regulation and consequently characterized as being deliberate, reflective, elaborate, and effortful, relying on the limited processing capacity of working memory for its operation (e.g., Baumeister, Bratslavsky, Muraven, & Tice, 1998; Miller, 1956). For example, Wheeler, Brinol, and Hermann (2007) and Burkley (2008) have argued that resisting persuasion attempts requires cognitive resources, which are finite and hence in limited supply. Both series of studies found that when participants first completed a taxing, self-regulatory cognitive task and were then exposed to a persuasive message, subsequent resistance suffered as indicated by, for example, reduced counterarguing. In addition to and in accordance with this limited capacity perspective, Janssen, Fennis, and Pruyn (2010) showed that when people are forewarned of the persuasive intent of an upcoming message, they tend to conserve their remaining self-regulatory resources in the service of actively resisting the message when they are confronted with it. Indeed, underscoring the effortful, deliberate nature of the resistance process following forewarning, Wood and Quinn (2003) reliably showed in their meta-analyses that the postmessage effects of forewarning on resistance are significantly reduced when people are distracted between the warning and the delivery of the appeal and are thus unable to actively employ their cognitive resources to defend themselves against the persuasive attack.

In sum, a large body of research converges on the notion that resistance to persuasive communications, including resistance as a consequence of forewarning either of persuasive intent or of content and position, is best understood as a cognitive resource-demanding, active, and effortful form of self-regulation that suffers when these finite resources are thwarted (e.g., Wood & Quinn, 2003), depleted (e.g., Burkley, 2008; Wheeler et al., 2007) or left untouched (e.g., Petty & Cacioppo, 1979). This conception might imply that resistance is *invariably* explicit, effortful, and deliberative. In the present research, however, we propose a priming strategy, which automatically and nonconsciously activates the concept of “persuasive intent,” something that is typically achieved via deliberative, explicit, and effortful means in traditional persuasive intent warning strategies.

**Persuasive intent priming produces effortless resistance**

In this research, we propose a priming strategy that assists message receivers in resisting the influence of heuristic cues in advertising. We focus on the resistance to heuristic cues for two reasons. First, these cues are omnipresent in persuasive communications, as highlighted earlier. Second, the choice for heuristic cues as the target for our priming strategy is plausible given the process that research has shown is responsible for producing persuasion under these conditions. As discussed above, persuasion as a function of these cues is largely an automatic, impulsive process (whereas argument-based persuasion is typically conceived of as a reflective, effortful process). Hence, it is logical to assume that if a priming strategy that does not heavily draw on limited processing capacity and operates outside of a message recipient's awareness can be developed, then such a strategy will primarily (or perhaps only) be effective at that same automatic, impulsive level and will thus be particularly geared toward combating the persuasive power of heuristic cues.

There is indeed support for these notions. More specifically, to be able to resist heuristic-based advertising, people should at least have (tacit) knowledge of the prevalence and functions of persuasive heuristic cues in messages. This assumption is warranted, as work on the persuasion knowledge model (Friestad & Wright, 1994) suggests. According to this framework, people develop knowledge on the tactics and strategies that marketers use in their persuasive attempts. This knowledge helps people to exert control over persuasive situations, and such control may result in resistance. For example, research on persuasion knowledge (e.g., Campbell & Kirmani, 2000) has shown that informing consumers of persuasive intent activates persuasion knowledge, which enables consumers to resist (unwanted) influence attempts (see also Friestad & Wright, 1994). A recent study on disclosures (Boerman, van Reijmersdal, & Neijens, 2012) revealed that warning participants about advertising in editorial content (i.e., "this program contains advertising by brand X") increased both conceptual and attitudinal persuasion knowledge. This finding suggests that a warning may direct attention to the persuasive tactics that are used in an advertisement, particularly when a warning refers to the persuasive intent of a message. Therefore, the warning may attract attention to the heuristic cue that is used as a tactic to persuade the message recipient and will activate strategies such as counterarguing and source derogation. We argue that these processes may subsequently affect the perceptions of the reliability and effectiveness of the message (i.e., message persuasiveness). Thus, we hypothesize that a traditional forewarning strategy that warns people of an upcoming persuasive attempt (i.e., persuasive intent warning) reduces the (typically observed) effects of heuristic cues on message persuasiveness.

Notably, recent research shows that the activation of such persuasion knowledge does not necessarily rely on conscious, effortful attention. More specifically, in a series of studies, Laran, Dalton, and Andrade (2011) demonstrated that persuasion knowledge can also be activated and used outside of conscious awareness. More specifically, these authors demonstrated that priming people with an advertising slogan may automatically instigate behavior that is the *opposite* of that implied by the slogan

(i.e., a reversed priming effect). This effect occurs because slogans are automatically perceived as persuasion tactics and thus prompt adoption of an unconscious goal to correct and hence to resist such tactics. From this research, it can be concluded that people can correct for strategies and tactics that are perceived as persuasive without being consciously aware of doing so.

Given these findings, we propose an implicit persuasive intent priming strategy that also taps into unconscious processes to resist persuasion. We suggest that reminding people of a situation in which someone attempted to influence their behavior (i.e., persuasive intent priming) may automatically activate defensive responses and therefore reduce persuasion to a similar extent as traditional persuasive intent warning strategies. We label this strategy as implicit (and contrast it to more traditional, explicit strategies) for good reasons. That is, in keeping with a large body of previous research (e.g., Bargh, 2004; Chartrand, 2005; Dijksterhuis et al., 2005), primes are viewed as “implicit” or “unconscious” to the extent that they may affect behavior and perceptions outside conscious awareness. That is, (successfully) primed individuals can either be unaware of the *stimulus* itself (as is the case with subliminal exposure to stimuli) or they can be unaware of the *influence* of that stimulus on subsequent thought and action. In the present case, we argue for implicit, unconscious influence based on the latter conceptualization: Whereas the strategy itself will of course be consciously perceived, the processes that are activated by it are expected to work outside of conscious awareness (in contrast to traditional forewarning strategies). Specifically, priming research (Srull & Wyer, 1979) has highlighted that the activation of a construct in memory through a priming procedure also activates semantic and behavioral representations that are associated with it through a process of spreading activation (see Bargh, 2006), and that this process unfolds nonconsciously and automatically. Hence, priming persuasive intent may (unconsciously) activate related constructs that are associated with it, such as resistance-related responses. Importantly, overt, behavioral responses (such as expressed evaluations, judgments, or motor actions) are thought to be represented similarly to any other type of construct in memory and consequently, will similarly be activated by the priming procedure.

Translated to the present study and in line with the research discussed previously, this implies that being reminded of a situation in which one is the target of a persuasive attempt is expected to automatically activate persuasion knowledge that is associated with it and hence will remind the individual of the persuasive strategy that the persuader used to convince him or her. Therefore, when being exposed to an advertisement, the prime is expected to result in automatically focusing attention on the persuasive strategy that is used in the advertisement (in this case, the heuristic cue). This effect will subsequently result in an automatic correction of the effects of heuristic cues in advertising, decreasing the perceived persuasiveness of the heuristic-based advertisement. Hence, following this priming strategy, the ad will be perceived as less convincing, reliable, and effective. An important advantage of this persuasive intent priming strategy is that its implicit, unconscious nature implies that it need not draw on working memory’s limited capacity for its operation and hence

is expected to require less cognitive capacity than its traditional, more deliberative and reflective counterpart (Dijksterhuis, 2004; Dijksterhuis, Bos, Nordgren, & van Baaren, 2006; Messner & Wanke, 2011; Strick et al., 2011). In sum, we expect that both persuasive intent strategies (priming and warning) will reduce the influence of heuristic cues on the perceived persuasiveness of the message. In a no-strategy control condition, we expect that recipients will perceive the heuristic-based advertisement as more persuasive than a control (nonheuristic) advertisement.

Thus, in two studies, we aim to test the proposition that persuasive intent warning and persuasive intent priming may be similarly effective in reducing message persuasiveness (compared with a no-strategy control condition, Experiment 1). However, we also propose that persuasive intent priming will “outperform” persuasive intent warning in terms of efficiency and, conversely, that forewarning will require more active cognitive effort than priming. Hence, we posit that persuasive intent priming will use available cognitive resources to a lesser extent than persuasive intent warning (Experiment 2).

## Experiment 1

Experiment 1 was designed as an initial test to assess whether both persuasive intent priming and forewarning reduce the perceived persuasiveness of an advertisement. The positive effect of including a heuristic cue in a persuasive message on perceived message persuasiveness was expected to similarly decrease when message recipients are warned or primed with persuasive intent, compared with a no-strategy control condition.

### Design and participants

We conducted a 3 (persuasive intent: forewarning versus priming versus no-strategy control)  $\times$  2 (heuristic cue: present vs. absent) between-subjects design as part of a larger research project. A total of 168 college students (36 male) participated in exchange for €3 or partial course credits. The mean age was 22 years ( $SD = 4.89$ ).

### Procedure

Upon arrival at the lab, the participants were informed that the experiment consisted of several unrelated parts. After responding to some demographic questions, the participants were exposed to the persuasive intent warning, the persuasive intent prime, or the no-strategy control condition. Next, the participants were exposed to an advertisement in which a heuristic cue was either present or not present. Finally, the persuasiveness of the advertisement was measured.

### Independent variables

*Persuasive intent.* In the persuasive intent warning condition, the participants were informed that they would be exposed to an advertisement attempting to influence

their behavior: "You will be exposed to an advertisement. This advertisement is intended to influence you" (cf. Benoit, 1998; Papageorgis, 1968). In line with previous work on priming mental constructs (e.g., Fennis & Aarts, 2012; Van den Bos, Ham, Lind, Simonis, & Van Essen, 2008; Whitson & Galinsky, 2008), the participants in the persuasive intent priming condition were instructed to recall and write down a situation in which someone had attempted to influence their behavior: "Think of a situation in which someone tried to influence you and describe this situation below." This manipulation is similar to the forewarning condition in that it also points to a situation of persuasive intent. However, in the persuasive intent priming condition, no explicit reference to the upcoming advertisement is made. In the no-strategy control condition, the participants recalled and wrote down a situation in which they had traveled with public transport: "Think of the last time you traveled with public transport and describe this situation below."

*Heuristic cue.* Half of the participants were presented with an advertisement that included a heuristic cue, and half of the participants viewed the same advertisement without the heuristic cue. The advertisement was for a facial cream of a familiar brand and included information on how the cream works. We chose this product and brand because this is a medium involvement product (Te'eni-Harari & Hornik, 2010) and it was assumed that our sample did not hold strong attitudes toward this product (as attitude accessibility may affect resistance; Pfau et al., 2003). To manipulate the salience of a heuristic cue, we consulted classic literature in social influence (Cialdini, 1993, 2001) and chose an authority heuristic. In the heuristic cue condition, it was noted three times that the cream was tested *scientifically* and that it was developed in a *scientific* laboratory. In line with the long tradition of persuasion studies employing dual process frameworks (Chaiken, 1980), the label "scientific" not only suggests authority but also closely matches previous manipulations of source credibility and expertise, which frequently used high status sources of undisputed authority (e.g., the "Carnegie Commission on Higher Education"). Moreover, in the heuristic cue condition, we added two (product) attributes in addition to the adjective "scientific" which, although technically meaningless (cf. Wänke & Reutner, 2010), jointly conveyed a perception of scientific corroboration to the claims in the advertisement. These meaningless attributes were "ultimate *cellulaire* revitalizing cream" and "exceptional treatment with *Extrait de Vie*." We conducted a pilot study to test whether people are indeed unaware of the meaning of the included attributes. We exposed 13 participants (7 males, with a mean age of 22 years) to the heuristic-based advertisement and asked them about the meaning of "cellulaire" and "extrait de vie." None of the participants were aware of the actual meaning of the attributes and were therefore also uninformed of how these attributes could be beneficial for the cream.

In the no-heuristic condition, the two attributes (i.e., "cellulaire" and "extrait de vie") and the references to scientific testing were removed and these latter were replaced with references to unqualified product tests. All other elements of the advertisement were identical.



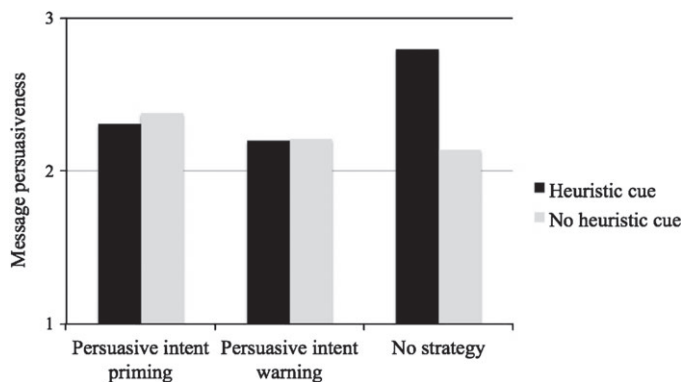
### Dependent variable

To measure persuasion in response to the advertisement, we used a three-item, 5-point scale (i.e., totally disagree/totally agree; see Lee, 2010) rating the extent to which the participants judged the advertisement to be convincing, reliable, and effective. We omitted a fourth item (consistent) to improve the scale's reliability (Cronbach's  $\alpha = .71$ ).

### Results and conclusion

Both persuasive intent strategies were expected to reduce the effect of heuristic cues in advertising (as compared with the no-strategy control condition). An analysis of variance (ANOVA) with persuasive intent and heuristic cue as independent variables and with the persuasiveness of the advertisement as a dependent variable demonstrated no main effects of either persuasive intent ( $F(2, 162) = 1.48, p = .231, \eta^2 = .02$ ) or heuristic cue ( $F(1, 162) = 2.23, p = .137, \eta^2 = .01$ ). However, in accordance with our hypothesis, we did observe an interaction effect between persuasive intent and heuristic cue ( $F(2, 162) = 3.26, p = .041, \eta^2 = .04$ ). Simple main effect analyses revealed that participants in the control condition rated the advertisement with the heuristic cue as more persuasive ( $M = 2.80, SD = .74$ ) than the no-heuristic advertisement ( $M = 2.14, SD = .78; F(1, 162) = 8.38, p = .004, \eta^2 = .05$ ). However, this effect was not observed in the persuasive intent warning ( $F < 1$ ) and persuasive intent priming conditions ( $F < 1$ , see Figure 1). This result indicates that persuasive intent warning and priming eliminates the influence of heuristic cues in advertisements.

The present findings provide an initial empirical demonstration of our reasoning that persuasive intent priming (i.e., reminding people of a situation in which someone attempted to influence them) entails an effect on message persuasiveness that is similar to the traditional strategy of forewarning. The next experiment extends these findings by showing that persuasive intent priming requires fewer cognitive resources than persuasive intent warning, making the priming strategy more resource efficient.



**Figure 1** Message persuasiveness as a function of heuristic cue and persuasive intent (Experiment 1).

## Experiment 2

The aim of this experiment is to replicate our key finding that both persuasive intent warning and priming decrease the perceived persuasiveness of an advertisement that includes a heuristic cue, compared with a control condition. In addition, the present experiment will use another product and another heuristic cue to increase the robustness of our findings. Moreover, the present experiment will directly tap into the presumed underlying process and examine whether priming or warning message recipients of persuasive intent differentially affects the extent to which participants use cognitive resources to resist the persuasive message.

### Design and participants

Our predictions were tested in a 3 (persuasive intent: warning vs. priming vs. no-strategy control)  $\times$  2 (heuristic cue: present vs. absent) between-subjects design that was part of a larger research project. One hundred and forty-three college students participated in the experiment in exchange for €3. Two participants were removed because they had a standardized residual  $>2.5$ . Of the remaining 141 participants 33 were male and the mean age was 22 years ( $SD = 3.19$ ).

### Procedure

The participants were welcomed at the lab and were informed that the experiment consisted of several unrelated parts. They first responded to some demographic variables and were then primed with persuasive intent or warned of persuasive intent. Next, the participants were exposed to an advertisement that did or did not include a heuristic cue. Subsequently, the participants rated the persuasiveness of the advertisement. A measure of consumed cognitive resources concluded the experiment.

### Independent variables

*Persuasive intent.* The same persuasive intent manipulation that was used in Experiment 1 was also used in Experiment 2. Hence, the participants in the warning condition were informed that they would be exposed to an advertisement attempting to influence their behavior. In the priming condition, the participants recalled and described a situation in which someone attempted to influence their behavior. The participants in the control condition recalled and wrote down a situation in which they had traveled with public transport.

*Heuristic cue.* The advertisement that was used in this experiment promoted an unfamiliar toothpaste brand and either included a heuristic cue or did not include such a cue. In this study, we used a heuristic cue that was related but not identical to the previous cue that was used, and we employed an expertise heuristic. Hence, in the heuristic cue condition, the toothpaste was recommended by a dentist whereas in the no-heuristic condition the toothpaste was recommended by a regular person. All other information in the advertisement was identical.

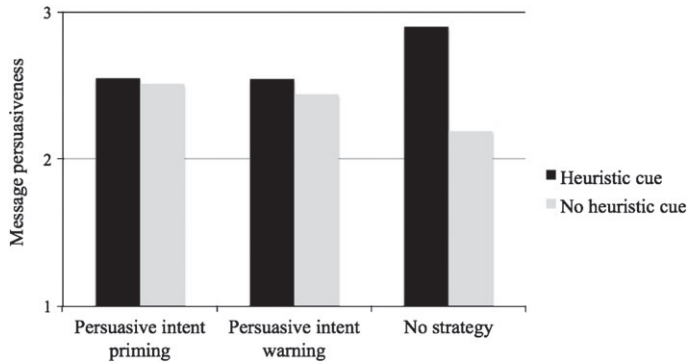
### Dependent variables

*Persuasiveness of the advertisement.* As in Experiment 1, we measured the persuasiveness of the advertisement with four items asking the participants to rate how convincing, reliable, effective, and consistent the advertisement was (1 = completely disagree, 5 = completely agree). The reliability of the measure was satisfactory (Cronbach's  $\alpha = .74$ ).

*Cognitive resources.* The amount of cognitive resources that people used in resisting the advertisement was measured by asking the participants to respond to 20 cognitively demanding assignments. There was no time limit. The idea behind this measure is that participants who provide more correct answers have more cognitive capacity remaining and have thus spent less cognitive resources in resisting the message (Schmeichel, Vohs, & Baumeister, 2003; Fennis, Janssen, & Vohs, 2009). The following is an example question: "Bill is taller than Jessica. Penny is shorter than John. Penny is shorter than Jessica. Who is the tallest?" The answer options are as follows: A: Bill; B: John; C: Jessica; and D: Bill or John. These types of questions are found to tap into the cognitive resources that people use for active self-regulation and higher executive functioning. Hence, performance on these questions suffers when people have exerted active self-regulation and when they are mentally depleted. Therefore, this test assesses how much cognitive resources people have remaining after having responded to the persuasive message. We reason that people who did not spend cognitive capacity on resisting the message (or did not attempt to resist the message at all) have more cognitive capacity remaining and thus show increased performance on this test. The total number of correct answers served as the dependent variable (cf. Fennis et al., 2009). Note that a higher score on this measure indicates that the persuasive intent strategy induced a more effortless—and therefore more resource efficient—process.

### Results and conclusion

To confirm our first hypothesis that both persuasive intent warning and priming reduce the influence of heuristic cues in advertising, we performed a full factorial ANOVA with persuasive intent and heuristic cue as independent variables and with the persuasiveness of the advertisement as the dependent variable. The results revealed a main effect of heuristic cue ( $F(1, 135) = 6.12, p = .015, \eta^2 = .04$ ) such that the advertisement including the heuristic cue was observed to be more persuasive ( $M = 2.65, SD = .70$ ) than the control advertisement ( $M = 2.36, SD = .66$ ). No main effect of persuasive intent was revealed ( $F < 1$ ). More important for the current hypothesis, the results yielded an interaction effect between persuasive intent and heuristic cue ( $F(2, 135) = 3.64, p = .029, \eta^2 = .05$ ). Consistent with the previous results, simple main effect analyses demonstrated that participants in the no-strategy control condition rated the advertisement with the heuristic cue as more persuasive ( $M = 2.90, SD = .73$ ) than the no heuristic advertisement ( $M = 2.19, SD = .64; F(1, 135) = 13.32, p < .001, \eta^2 = .09$ ). This effect was not observed in either the persuasive intent warning condition ( $F < 1$ ) or the persuasive intent priming condition



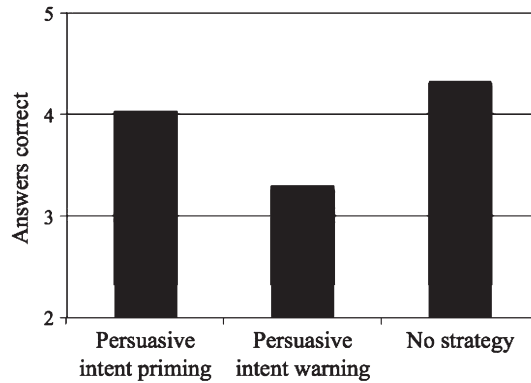
**Figure 2** Message persuasiveness as a function of heuristic cue and persuasive intent (Experiment 2).

( $F < 1$ , see Figure 2). Hence, we replicated the results of Study 1 by demonstrating that a priming strategy is as effective as a warning strategy in enhancing resistance.

However, a significant difference was observed between the participants' consumed cognitive resources ( $F(1, 138) = 3.13, p = .047, \eta^2 = .04$ ). In the persuasive intent warning condition, the participants used more cognitive resources, which was reflected in their lower scores on the cognitively demanding assignments ( $M = 3.30, SD = 1.56$ ) compared with the participants in the persuasive intent priming ( $M = 4.04, SD = 2.39; p = .085$ ) and the no-strategy control condition ( $M = 4.33, SD = 2.11; p = .016$ , see Figure 3). Importantly, the latter two conditions proved to be equivalent ( $p = .491$ ). These results demonstrate that although both strategies decrease the perceived message persuasiveness of heuristic cues in advertising, the participants in the persuasive intent priming condition consumed less cognitive resources than the participants in the persuasive intent warning condition. Interestingly, the implicit strategy is as resource efficient as the no-strategy condition (in which there is no persuasive intent warning or priming).

The findings of this experiment confirm that the effects of priming message recipients with persuasive intent are similar to the effects of more traditional forewarning strategies. Although the results of both experiments demonstrate that both strategies reduce the effect of heuristic cues in advertising, the priming strategy has been found to save cognitive resources. This finding indicates that persuasive intent priming activates an unconscious, effortless process that assists message recipients in eliminating the positive effects that are typically induced by heuristic cues.

On the basis of the current results, however, one could question whether the reduction of cognitive effort in the priming condition is indeed caused by the finding that this strategy induces an unconscious and therefore effortless process. To obtain support for our reasoning, we performed a posttest using a funneled debriefing procedure (Bargh & Chartrand, 2000) to test whether the participants in the priming condition recognized the goal of the experiment and whether they perceived a link between the different parts of the experiment (i.e., the manipulation, the questions about the



**Figure 3** Amount of correct answers as a function of persuasive intent. *Note:* Higher scores indicate fewer cognitive resources consumed.

advertisement, and the cognitive effort measure). Twenty college students followed the exact same procedure as the participants in the priming condition in Experiment 2. The only difference was that the posttest participants responded to the funneled debriefing questions after the experiment. The results demonstrated that only one of the participants correctly related the manipulation (i.e., directing them to recall and describe a situation in which someone attempted to influence their behavior) to the questions pertaining to the persuasiveness of the advertisement. No reference to the heuristic cue was made. None of the other participants identified the purpose of the experiment or perceived a relation between the different parts of the experiment. These results strongly suggest that the process induced by the priming manipulation is indeed an unconscious process, which may explain why this strategy is more resource efficient than the explicit forewarning strategy. Note that we do not argue that the priming strategy is itself an unconscious entity. The participants in the persuasive intent priming condition certainly thought consciously about the situation in which someone attempted to influence them. However, as confirmed by our posttest, the participants were unaware of the processes that were instigated by this strategy and, more importantly, the effects of these processes on their evaluation of the advertisement (for a discussion of the different “types” of awareness, see Chartrand, 2005).

### General discussion

In this research, we tested (a) whether it is possible to reduce the persuasiveness of heuristic cues by priming participants with the concept of persuasive intent and (b) whether this process is more resource efficient than a traditional forewarning method. In two studies, we observed that message recipients who were warned of the persuasive intent of a message or were primed with persuasive intent showed more resistance to a heuristic-based advertisement than message recipients in a control condition. Interestingly, however, recipients who were primed with persuasive intent consumed

fewer cognitive resources in resisting the message than recipients who were warned of persuasive intent, as the recipients in the priming condition had more resources remaining after resisting the advertisement than the recipients in the warning condition. Moreover, a posttest revealing that the message recipients were unaware that the priming procedure affected their responses strengthened our reasoning that the persuasive intent prime actuates an unconscious process. An explanation could be that the persuasive intent priming condition fosters a more direct and efficient level of cognitive resistance processing than the persuasive intent warning condition that more explicitly demands to anticipate being persuaded. Hence, our measure of cognitive resources may actually mean that priming cognitive processing is more efficient than blowing an alarm about the need to respond cognitively.

Our reasoning further implies that message recipients who are already mentally depleted would benefit more from a persuasive intent priming strategy than from a warning strategy. These recipients likely do not have the mental capacity remaining to respond to a forewarning strategy by counterarguing the message. Because cognitive capacity is scarce and because message recipients are often not motivated or able to resist a persuasive attempt, the priming strategy that is proposed here is likely more adaptive to an environment in which attempts at persuasion are omnipresent and inevitable.

A limitation of this research is that we only measured message persuasiveness as dependent variable. Moreover, this measure was barely reliable in our first study. For future research it would therefore be interesting to focus on other measures such as actual attitude change and behavioral outcomes. This would also add to the generalizability of our results. We hypothesize that evaluations on message persuasiveness will spill over to, for example, product evaluation and actual behavior. Moreover, to reveal more of the underlying processes measures of activated persuasion knowledge and resistance strategies such as counterarguing, source derogation and avoidance could be included. This way it can be further established whether people indeed use resistance strategies after a persuasive intent prime. Our sample consisted of college students. It can be argued that these students have greater persuasion knowledge than other people. Because we expect that persuasive intent forewarning and persuasive intent priming might activate persuasion knowledge, it might be argued that our participants recognized the heuristic cue more easily than other people would have. On the other hand, it has been argued that due to experience, all people possess persuasion knowledge to a certain degree (Friestad & Wright, 1994), which is expected to be activated by our strategies. Future research could investigate whether persuasion knowledge moderates the observed effects.

Another limitation of the present studies is that we did not include a manipulation check for the persuasive intent manipulation. However, for the forewarning manipulation, we used a standard procedure that has been used in much previous research (e.g., Wood & Quinn, 2003). The priming manipulation was based on this forewarning manipulation such that the information provided was as similar as possible although without any reference to the upcoming advertisement. For this

priming manipulation, it would be difficult to use a manipulation check because we assumed that the processes that are activated work on an unconscious level; hence, it would be impossible to ask people whether they, for example, felt the need to resist the message or felt that they were about to be manipulated. Nevertheless, the results of our studies confirm that the persuasive intent priming manipulation was successful in reducing perceived persuasiveness of the message.

Although this research revealed that priming persuasive intent has an unconscious and effortless effect on resistance, future research could benefit from delving into the underlying mechanism that is responsible for the effect. One option is that reminding a message recipient of a situation in which someone attempted to influence him or her primes the concept of resistance. In this context, it is noteworthy that nearly all of the participants in the implicit forewarning condition recalled and wrote down a situation in which they resisted an influence attempt (although no reference to resistance was made in the persuasive intent priming procedure). In other words, these participants described a situation in which another person failed to persuade them. Apparently, most message recipients automatically relate the concept of influence to the concept of resistance. The activation of the resistance concept could subsequently have affected resistance directly through the "perception-behavior" link (e.g., Bargh, Chen, & Burrows, 1996), by goal priming (e.g., Bargh, Gollwitzer, Lee-Chai, Barn-dollar, & Trotschel, 2001; Shah, 2003), or by activating a resistance "mindset" (e.g., Sassenberg & Moskowitz, 2005; Wyer & Jing Xu, 2010). Moreover, as there is no clear definition of the meaning of unconscious resistance it would be interesting for future research or theorizing to delve into this. In the current research, we demonstrated that the processes leading to a decrease in persuasion (i.e., resistance) work automatically. However, it remains unclear whether resistance in itself is also unconscious.

One could question why the persuasive intent strategies did not result in a more negative evaluation of the control advertisement (i.e., the advertisement without the heuristic cue). As stated in the introduction, forewarning strategies are not always effective in reducing persuasion (Benoit, 1998). The strength of pointing to the persuasive intent of a message could actually be its ability to assist people in distinguishing between biased and unbiased advertisements. This ability would likely be more useful and adaptive than simply disregarding all advertisements because some persuasive messages do not need to be resisted. Advertisements often provide consumers with useful information for choosing products that best suit their needs and sometimes even straightforwardly seek to promote healthy or prosocial behaviors. Therefore, it may be argued that rather than merely increasing resistance, the goal of these kind of strategies should be to assist consumers in reducing bias that may, for example, be activated by heuristic cues. To test this reasoning further, it would be interesting to include argument strength in the research design. If our reasoning is correct, then message recipients who are primed with persuasive intent would differentiate between an advertisement that includes weak or strong arguments because they would (unconsciously) weight the provided information (Bos, Dijksterhuis, & van Baaren, 2011) and use the activated persuasion knowledge.

In this research, we examined a resource efficient strategy that could help message recipients to resist (unwanted) persuasive messages. The persuasive intent priming manipulation, as used in the current experiments, is a simple and straightforward approach and thus reveals new avenues for (consumer) protection. In addition, the strategy shares many similarities with strategies used to protect consumers from implicit advertising tactics such as product placement. In many countries, specific logos have been designed to precede a program that contains product placement. Over time, these logos could be similar to our priming strategy. When people view such logos often and begin to associate these logos with persuasive intent, the logos will, over time, function as cues that could activate the processes that are involved with unconsciously resisting a message.

The findings of our research are the first to show that the automatic and often unconscious effects of heuristic cues in persuasive messages can be countered with strategies that also work on an unconscious level and that do not require mental resources.

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