

Those Who Laugh Are Defenseless: How Humor Breaks Resistance to Influence

Madelijn Strick, Rob W. Holland, Rick B. van Baaren, and Ad van Knippenberg

Radboud University Nijmegen

Author Note

Madelijn Strick, Rob W. Holland, Rick B. van Baaren, and Ad van Knippenberg,
Behavioural Science Institute, Radboud University Nijmegen.

Correspondence regarding this manuscript should be addressed to Madelijn Strick,
Behavioural Science Institute, Radboud University Nijmegen, Montessorilaan 3, P.O. Box
9104, 6500 HE Nijmegen, The Netherlands; Phone: +31 24 361 2697; Fax: +31 24 361 2677;
E-mail: m.strick@bsi.ru.nl

Abstract

Three experiments illustrate how humor breaks resistance to the influence of advertisements. Previous research on resistance focused on negative thoughts about advertisements, and found that humor reduces the number of negative thoughts, but it was still debated through which underlying mechanisms (cognitive, affective, or both) this occurred. This study investigated whether resistance also leads to negative brand associations, and if and how humor prevents these negative brand associations. We explored the underlying processes by separately manipulating two typical aspects of humor processing (distraction and positive affect), and examining their respective effects on negative and positive brand associations. All experiments were conducted with university students as participants. The study showed that resistance leads to the formation of negative explicit (Experiment 1) and implicit (Experiment 2) brand associations. Humor prevented the formation of these negative brand associations more than nondistracting positive stimuli and neutral stimuli. The relation between humor and reduced negative brand associations was caused by distraction, indicating that a cognitive mechanism underlies the effect. Additionally, the positive affect evoked by humor created new positive brand associations, and this effect was not attenuated by resistance or distraction. Experiment 3 replicated these findings using an overt consumer behavior measure (brand coupon choice). These results indicate that using product-unrelated humor in advertisements is useful when resistance is high, serving both as a distraction of negative affect and a source of positive affect. Humor stimulates explicit and implicit brand associations, as well as consumer behavior.

Keywords: humor, advertising, resistance, implicit attitudes, brand preference

Those Who Laugh Are Defenseless: How Humor Breaks Resistance to Influence

Advertisements (ads) pervade every social space: everyday, TVs, radios and the Internet press on people to buy adventure, increase their beauty, and improve their lives. Not surprisingly, marketing research has focused on the factors and processes that increase ad effectiveness. Traditionally, most research took the perspective of the advertiser, framing research questions along the lines of "what works" in ads, that is, which strategies cause a change in consumers' preferences (Wright, 1986). However, in the past years, researchers are focusing more on the subjective experience of the *targets* of the ads (i.e., the consumers), and how their feelings and beliefs about persuasive tactics influence the persuasion process (e.g., Friestad & Wright, 1994). One aspect that receives increasing research attention is consumer *resistance*, defined as "a motivated state in which the goal is to withstand the effects of a persuasive communication" (Jacks & O'Brien, 2004, see Knowles & Linn, 2004, for a review on resistance and persuasion). Advertising and marketing efforts often raise resistance. Many people feel that ads intrude on their private space, are manipulative, often deceitful, and create stereotypes (Shimp, 2003).

Resistance stems from a basic need to restore freedom in response to a persuasive attempt, and is common when people are exposed to advertising (Sherman, Crawford, & McConnell, 2004). Although most persuasion situations could be thought of as involving some resistance, previous research has identified several factors that increase it, such as the strength of the initial attitude under attack, an illegitimate source, forewarning, and beliefs of susceptibility (Knowles & Linn, 2004). A successful act of resistance to an ad entails the prevention of any influence of the ad on one's brand attitude and/or brand choice (McGuire, 1964; Brehm, 1966). As ads usually portray brands positively, the automatic response of consumers is to accommodate to this positive portrayal (Meyers-Levy & Sternthal, 1993). Because of the automatic nature of ad influence, consumers have to mobilize some counter-

response to prevent it, which typically requires effort (Burkley, 2008; Jacks & Devine, 2000; Wheeler, Briñol, & Hermann, 2000; Zuwerink & Devine, 1996).

Consumer resistance challenges advertisers' ability to reach their audience. One strategy advertisers often adopt is to use humor in their ads. Recent studies have demonstrated that humor can decrease negative cognitions related to advertising (Eisend, 2011), reduce psychological reactance to a public service announcement (Nabi, Moyer-Guse, & Byrne, 2007; Skalski, Tamborini, Glazer, & Smith, 2009), and is especially effective when ads feature weak rather than strong arguments (Cline & Kellaris, 1999), which suggests that humor can indeed counter consumer resistance. Although past work has made important progress, it is still under debate precisely how humor affects consumer resistance (Eisend, 2011; Gulas & Weinberger, 2006; Skalski et al., 2009). In the present research we attempt to contribute to this research field by investigating the basic processes by which humor reduces resistance.

The literature on the mechanisms underlying humor in ads comprises several theoretical explanations, which can be broadly categorized into affective and cognitive models. Affective models assume that the effect of humor on persuasion is mediated by positive affect. By definition, humor has the quality to elicit a generic positive response, including amusement and fun (Martin, 2007). Researchers have argued that this positive emotion can minimize the experience of resistance directly because it is simply incompatible with the counter-arguing and message-elaboration that accompanies resistance (e.g., Skalski et al., 2009; Slater, 2002). Another affective model is based on affect regulation, and assumes that people who are in a positive affective state avoid negative things in order to protect their positive state and even approach positive things in order to maintain it (Andrade, 2005; Gross, 1998). Indeed, counterarguing requires effort and can disrupt positive states (Batra & Stayman, 1990). Therefore, positive affect evoked by humor may lead to a reduced

motivation to offer resistance. In summary, affective models assume that there is a positive relation between positive affect and reduced resistance: the stronger the positive affect evoked by humor, the more it reduces resistance.

Cognitive models, on the other hand, are based on an information processing approach (Chaiken, 1980; McGuire, 1978; Petty & Cacioppo, 1986). According to this approach, humor can distract counterarguments similar to other forms of distractions. When exposed to advertising, consumers pay more or less attention to different parts of the ad. Humor in ads has a high attention-attracting ability (Eisend, 2009; Weinberger & Gulas, 1992), which leads consumers to pay attention and enhance cognitive responses. However, research illustrates that this enhanced attention is usually directed only at the humor, and does not support the cognitive elaboration of information that is unrelated to the humor (e.g., Krishnan & Chakravarti, 2003; Strick, Van Baaren, Holland, & Van Knippenberg, 2009). In fact, given that humor requires solving incongruities and therefore poses cognitive demands, it often leads attention away from other cognitive processes (e.g., Gelb & Zinkhan, 1986; Krishnan & Chakravarti, 2003). Because resistance is an effortful process that requires some attention, the distracting effect of humor can undermine resistance. Note that cognitive models do not assume a relation between positive affect and reduced resistance. Rather, the assumption is that the reduction of resistance is mediated by distraction: the more humor distracts attention, the better it serves to reduce resistance. We characterize this mechanism as cognitive because it is based on a model of limited cognitive resources. Note, however, that the consequences of distraction may still be affective: distraction may prevent the activation or transfer of negative affect to brands.

Past literature on humor in advertising maintained the possibility that affective mechanisms, cognitive mechanisms, or both, underlie the effect of humor on resistance (Gulas & Weinberger, 2006; Skalski et al., 2009). In the present work we hypothesized that

the underlying mechanism is primarily cognitive. Thus, we hypothesized that distraction is the working ingredient by which humor prevents the formation of negative brand associations otherwise formed by resistance, not the positive affect it evokes. Of course, positive affect may still contribute to the persuasion process by increasing positive brand associations (Strick et al., 2009). However, we hypothesized that distraction and positive affect have differential and independent effects on negative and positive brand associations: distraction prevents the formation of negative brand associations otherwise formed through resistance (irrespective of positive affect), and positive affect creates new positive brand associations (irrespective of the negative affect).

Our hypotheses were derived from previous work showing that not only humor, but also affectively neutral distractors decrease the experience of negative emotions (Van Dillen & Koole, 2009). Furthermore, previous research showed that distraction caused the attenuating effect of humor on negative emotions (Strick, Holland, & Van Knippenberg, 2009). It is important to note that distraction reduces only negative, but not positive emotions (Strick, Holland, Van Baaren, & Van Knippenberg, 2010b; Van Dillen & Koole, 2007). This implies that the distraction in humor should reduce negative, but not positive, brand associations. The assumption of independence of positive and negative brand associations is in line with recent attitude models that assume that positivity and negativity are separate and often uncorrelated attitude dimensions (Cacioppo, Gardner, & Berntson, 1997; Norris, Gollan, Berntson, & Cacioppo, 2010).

Explicit versus Implicit Attitudes

Most empirical studies on resistance have emphasized the mediating role of negative thoughts (i.e., counterarguments) that are generated on the spot, and may or may not be stored in a consumer's brand memory (e.g., Chen, Reardon, Rea, & Moore, 1992; Petty & Cacioppo, 1977, 1979). The present study extends these past findings by focusing on the

effect of resistance on the formation of negative brand associations, which refers to knowledge that *is* linked to a specific brand in a consumer's memory (Aaker, 1991). Furthermore, in Experiment 2 we study the influence of resistance on *implicit* brand associations. Recent research has made a distinction between explicit attitudes, which are deliberate, conscious attitudes, that are typically assessed with self-report scales, and implicit attitudes, which are affectively charged (i.e., “positive” or “negative”) responses that automatically come to mind when the attitude object is perceived, and are accessed with response latency measures such as the Implicit Association Test (Greenwald, McGhee, & Schwartz, 1998) or evaluative priming (Fazio, 2001; Fazio, Sanbonmatsu, Powell, & Kardes, 1986).

We chose to study implicit brand associations for several reasons. Implicit and explicit associative processes are often dissociated, and there is good reason to believe that humor influences implicit processes more strongly than explicit processes. For instance, research showed that humor in ads can influence associative learning processes without changing explicit brand memory (Strick et al., 2009). Another reason to study implicit attitudes is that they are good predictors of brand choice (Dempsey & Mitchell, 2010; Gibson, 2008; Maison, Greenwald, & Bruin, 2004; Strick et al., 2009). Furthermore, immediate affective responses – which are the primary sources of implicit attitudes – are often seen as the “core” of an attitude that precedes and mediates further explicit thought (Cunningham & Zelazo, 2007; Gawronski & Bodenhausen, 2006; Jacks & Devine, 2000; Zuwerink & Devine, 1996).

Research Hypotheses

The first hypothesis of this study is that – in the absence of distraction - the negative emotion elicited by resistance becomes associated with the advertised brand through evaluative conditioning (Gawronski & Bodenhausen, 2006; De Houwer, Thomas, & Baeyens,

2001). To put it simply, an “affect transfer” occurs such that the negative emotion evoked by resistance is carried over to the advertised brand (MacKenzie, Lutz, & Belch, 1986). The possibility that resistance can affect brands directly by the transfer of negative affect has not been empirically addressed in previous research. The second hypothesis is that humor is a useful strategy that advertisers could adopt to dismantle the effect of resistance on negative brand associations. Resistance is a negative affective state, which is prevented by distraction (Strick, et al., 2010b; Van Dillen & Koole, 2007). Thus, we hypothesized that distraction prevents the formation of negative brand associations. The third hypothesis is that, independent of the impact of humor on negative brand associations, humor creates new positive brand associations. These positive brand associations are also assumed to be formed through affect transfer. A direct transfer of positive affect from humor to brands has been supported in previous studies (Gelb & Pickett, 1983; Strick et al., 2009). Thus, our hypotheses can be summarized as follows: the distraction posed by humor decreases the transfer of negative affect from resistance to the brand, but this leaves the transfer of positive affect from humor to the brand intact.

We disentangled positive and negative brand associations by means of separately analyzing the response latencies to positive and negative targets of an evaluative priming task (Fazio, 2001; Fazio, et al., 1986). Usually, in an evaluative priming task, the liking of an attitude object is evaluated by calculating the difference score between response latencies to positive and negative targets after priming with the attitude object. Separating priming effects of positive and negative trials is a more recent procedure in the field of the evaluative priming procedure (see Robinson & Kirkeby, 2005; Robinson, Ode, Moeller, & Goetz, 2007; Strick et al., 2009). Because attitude positivity and negativity are separate and often uncorrelated attitude dimensions (Norris et al., 2010), it makes theoretical sense to

disentangle them. The present research therefore subscribes to this novel use of the evaluative priming task.

Overview of the Experiments

We present three experiments that tested the assumed effects of distraction and positive affect in humor on brand negativity and positivity, respectively. In order to study the separate effects of distraction and positive affect on brand associations, humorous stimuli (i.e., stimuli that are both distracting and positive) were contrasted with nonhumorous positive stimuli (i.e., stimuli that are positive but not distracting), simple math problems (i.e., stimuli that are distracting but not positive), and control stimuli (i.e., stimuli that are both not distracting and not positive).

Experiment 1 tested whether resistance to influence creates negative responses to brands. Half of the participants were exposed to a resistance manipulation, and the other half of the participants were exposed to a control manipulation. Afterward, we measured the evaluations of a set of consumer brands, with the hypothesis that participants in the resistance condition would have more negative brand evaluations than participants in the control condition. The aim of Experiment 2 was to show that a) resistance causes negative *implicit* brand associations; b) humor decreases negative brand associations due to distraction, and c) humor simultaneously increases positive brand associations. The same resistance manipulation as Experiment 1 was used, but this time some brands were presented with humor while other brands were presented with control stimuli. An evaluative priming task was used to assess implicit brand associations. Experiment 3 was set up to generalize the findings of Experiment 2 to overt consumer behavior. This step is important because the relation between cognitive measures and overt behavior is by no means given (Baumeister, Vohs, & Funder, 2007). Hence, instead of an implicit attitude measure, Experiment 3 used a consumer behavior dependent measure.

Experiment 1

Method

Participants and design. Sixty-nine undergraduate students of the Radboud University Nijmegen (18 males) participated (mean age = 20.83 years, $SD = 2.20$), receiving course credits or 2 Euros in return. Participants were randomly assigned to one condition of a single factor (resistance manipulation: resistance or control) between participants design.

Stimulus materials. As consumer brands we used 30 pictures of foreign mineral waters brands that were unknown to the participants.

Procedure. In the resistance condition, participants read a narrative that included several resistance manipulations. It explained that the experiment was conducted in collaboration with the manager of a big supermarket chain who was planning to target students with e-mail and SMS text ads (irritation, Zuwerink & Devine, 1996). The text read that the most important goal of this manager was to make money, and that he was willing to turn to illegitimate means such as subliminal advertising to get it (distrusted source, Knowles & Linn, 2004). Furthermore, the manager allegedly assumed that students could be easily manipulated by ads (susceptibility, Sagarin, Cialdini, Rice, & Serna, 2002), and that the experiment would test this assumption (forewarning, Wood & Quinn, 2003). Control participants received a neutral narrative about the supermarket manager that was similar in length. After the manipulation, all participants received the same instruction to indicate their liking of a number of supermarket brands on a 7-point Likert scale, ranging from 1 (*do not like at all*) to 7 (*like very much*).

As manipulation check, participants afterward answered the question “During the evaluating of the brands, to what extent did you feel resistant to be influenced?” on a 7-point scale, ranging from 1 (*not at all*) to 7 (*very much*).

Results and Discussion

Resistance. The manipulation check confirmed that participants in the resistance condition experienced more resistance ($M = 5.18$, $SD = 0.96$) than participants in the control condition ($M = 3.80$, $SD = 1.11$), $t(67) = 6.22$, $p < .001$.

Stimulus ratings. The ratings of the brands were subjected to a 2 (resistance manipulation: resistance vs. control) one-way ANOVA. This yielded an effect of the resistance manipulation on average brand evaluation, $t(67) = 3.60$, $p < .001$, showing that the brands in the resistance condition were rated more negatively ($M = 3.47$, $SD = 0.45$) than the brands in the control condition ($M = 4.02$, $SD = 0.78$). Experiment 1 thus showed that resistance generates negative brand evaluations.

The aim of Experiment 2 was twofold. First, it addressed the question whether resistance can form negative *implicit* brand associations. A second aim of the study was to examine the role of humor in the formation of these negative brand associations. It was hypothesized that distraction decreases the experience of negative emotions, and therefore attenuates the formation of negative brand associations. Moreover, the positive affect involved in humor was expected to create positive brand associations, irrespective of resistance or distraction.

Experiment 2

Method

Participants and design. Eighty-six students of the Radboud University Nijmegen (10 males) participated (mean age = 20.93 years, $SD = 2.58$), receiving course credits or 2 Euros in return. The experiment had a 2 (resistance manipulation: resistance vs. control) x 2 (text distraction: distracting or nondistracting) x 2 (text valence: positive or neutral) x 2 (target word valence: positive or negative) mixed design, with the first factor between participants. Participants were randomly assigned to the resistance or control condition.

Stimulus materials. We used 15 humorous texts (i.e., distracting positive texts), 15 nondistracting positive texts, 15 distracting neutral texts (simple math problems), and 15 nondistracting neutral texts that have been used successfully to elicit distraction and positive affect (see Strick et al., 2010b, Experiment 2 for examples).

Extensive pilot testing of these texts (reported in Strick et al., 2010b) showed that the humorous and nondistracting positive texts elicited more positive feelings than the distracting neutral and nondistracting neutral texts, respectively $M = 4.62$ ($SD = 0.81$); $M = 4.71$ ($SD = 0.83$); $M = 3.81$ ($SD = 0.50$); $M = 3.87$ ($SD = 0.59$) on a 1-7 scale. Moreover, when participants processed the texts one by one at their own pace and were asked to continue with the next one “as soon as they felt they had understood it”, the humorous and distracting neutral texts took longer to process than the nondistracting positive and nondistracting neutral texts, respectively $M = 4646$ ms ($SD = 1318$); $M = 4858$ ms ($SD = 1708$); $M = 3841$ ms ($SD = 1029$); $M = 3989$ ms ($SD = 1388$). Processing speed gives a good indication of the cognitive demand posed by the stimuli, which is linearly related to distraction (see Strick, Holland, Van Baaren, & Van Knippenberg, 2010a).

As consumer brands we used twelve foreign peppermint brands taken from Strick, Holland, and Van Knippenberg (2008) that were unknown to the participants.

Procedure. After the resistance or control manipulation, participants entered the evaluative conditioning procedure in which brands were consistently paired with (i.e., shown adjacent to) texts that varied along the distraction and valence dimensions. There were 3 brands paired with each type of text. Each brand was shown five times, each time paired with a different text similar in distraction/valence content, totalling 60 trials. In line with most studies on evaluative conditioning, participants were merely asked to watch the stimuli (e.g., Baeyens, Eelen, Crombez, & Van den Bergh, 1992, see De Houwer, 2006). The

assignment of brands to texts, and the location of the brands and texts on the screen (i.e., left or right) were fully randomized. Each brand-text pair was shown for 6 seconds.

After the evaluative conditioning procedure, and a subsequent 3-minute filler task, participants received a surprise recognition test. This measure was added to confirm that the supposed distracting texts indeed distracted attention from the brands, which would be revealed by less accurate and/or slower brand recognition (Strick et al., 2010a, 2010b). Twenty-four pictures were presented one-by-one in random order, comprising the 12 brands that were previously shown and 12 new filler peppermint brands. Participants were asked to indicate as quickly and accurately as possible whether they recognized the brand from the first phase of the experiment.

Subsequently, participants performed an evaluative priming task (Fazio et al., 1986). Each trial started with a centred fixation cross presented for 1000 to 2000 ms, after which a brand name was presented as a prime for 200 ms, followed by a 50 ms interval, after which the target word was presented (SOA = 250 ms, ITI = 1000 ms). The target word was presented on the screen until a response was made. Each brand prime was followed by 2 positive and 2 negative target words, resulting in 4 data points for each brand and totalling 48 trials.

After, participants rated their experience of resistance in the same way as in Experiment 1.

Finally, participants performed a contingency awareness test according to four-picture recognition test procedure by Walther & Nagengast (2006). In the recognition test, participants were presented one-by-one with the peppermint brands in their original size on the left side of the screen and with four texts on the right. The instruction beforehand asked participants to select the text that had been paired with the brand. One of these texts was the correct text, a second text was of the same valence as the correct text but differed on

distraction, a third text was of a different valence as the correct text but the same on distraction, and the fourth text was of a different valence and also differed on distraction. Because the evaluative condition procedure included 60 different pairing trials, the contingency awareness test also included 60 trials. On average, participants assigned 28% brands to the correct text, which was marginally better than chance, $t(85) = 1.94, p < .056$. Individual differences in contingency awareness did not correlate with the level of resistance, nor with any of the effects reported below.

Results and Discussion

Resistance. The manipulation check confirmed that participants in the resistance condition ($M = 3.09, SD = 1.69$) reported more resistance than participants in the control condition ($M = 2.42, SD = 1.26$), $F(1, 84) = 4.41, p = .039, \eta^2 = .05$.

Data analyses. To remove reaction time (RT) outliers from the recognition task and evaluative priming task, we excluded incorrect responses and responses faster than 300 ms or slower than 3000 ms, and the remaining RTs were log-transformed (Ratcliff, 1993). These errors, fast, and slow responses were evenly distributed across the types of primes, target valences, and counterbalance conditions. The statistical analyses were performed on these log-transformed data, but for ease of interpretation the nontransformed data are presented here.

Brand recognition. The RTs of correct (“seen before”) answers to the recognition task were subjected to a 2 (resistance manipulation: resistance or control) x 2 (text distraction: distracting or nondistracting) x 2 (text valence: positive or neutral) repeated measures ANOVA. A main effect of text distraction emerged, $F(1, 81) = 8.31, p = .005, \eta^2 = .09$. On average, the recognition of brands was slower when associated with distracting texts ($M = 771$ ms, $SD = 161$) than with nondistracting texts ($M = 727$ ms, $SD = 112$), confirming the manipulation goal of distraction. There were no other significant main effect or

interaction effects. There were also no significant main effect or interaction effects on recognition accuracy.

Brand associations. The RTs of the evaluative priming task were subjected to a 2 (resistance manipulation: resistance or control) x 2 (text distraction: distracting or nondistracting) x 2 (text valence: positive or neutral) x 2 (target word valence: positive or negative) repeated measures ANOVA. This analysis revealed a significant Text Valence x Target Word Valence two-way interaction effect, $F(1, 84) = 12.15, p < .001, \eta^2 = .13$. There was also a significant Resistance Manipulation x Text Distraction x Target Word Valence three-way interaction effect, $F(1, 84) = 5.53, p = .021, \eta^2 = .06$. To test the formation of positive and negative brand associations, we proceeded by breaking down the analysis by target word valence; we separately analyzed the positive trials (trials relating to positive target words) and negative trials (trials relating to negative target words).

On the positive trials, we found a main effect of Text Valence, $F(1, 84) = 12.75, p < .001, \eta^2 = .13$. On average, participants responded faster to positive targets after priming with brands paired with positive texts ($M = 659, SD = 283$) than after priming with brands paired with neutral texts ($M = 695, SD = 290$). No other main or interaction effects emerged on the positive trials. The data of the positive trials confirm the hypothesis that association with positive texts results in positive brand associations, irrespective of resistance. Negative brand associations were not affected by the association with positive texts, and were uncorrelated with positive brand associations, $r(83) = .17, p = .129$, suggesting that positive and negative brand associations were indeed independent.

On the negative trials, we found a Resistance Manipulation x Text Distraction two-way interaction effect, $F(1, 84) = 4.24, p = .039, \eta^2 = .05$. The relevant means are displayed in Figure 1. Control participants responded equally fast to negative targets after priming with brands associated with distracting and nondistracting texts, $F < 1$, indicating that distraction

has no effect on negative brand associations in the absence of resistance. In contrast, resistant participants responded on average faster to negative targets after priming with brands paired with nondistracting texts ($M = 708$, $SD = 116$) than after priming with brands paired with distracting texts ($M = 781$, $SD = 324$), and than control participants after priming with brands paired with nondistracting texts. No other main or interaction effects emerged on the negative trials. The data of the negative trials confirm the hypothesis that resistance generates negative brand associations unless distraction prevents their formation. Moreover, combining the data of the positive and negative trials confirms that humor, as a source of distraction and positive affect, not only prevents the formation of negative brand associations, but also generates new positive brand associations.

To assess whether distraction underlies the relation between resistance and negative brand associations, we correlated distraction with brand negativity. We first subtracted the recognition speed of brands paired with nondistracting texts from the recognition speed of brands paired with distracting texts. Then, we subtracted the average RT to negative targets after priming with brands paired with nondistracting texts from the average RT to negative targets after priming with brands associated with distracting texts. Note that a positive correlation between these indexes would indicate that *more* distraction correlates with *less* negative brand associations.

There was a significant correlation between the two indexes in the resistance condition, $r(42) = .34$, $p = .026$, but not in the control condition, $r(41) = -.15$, $p = .362$. These findings indicate that distraction decreased brand negativity in the resistance condition, but did not affect brand negativity in the control condition. These correlations between distraction and brand negativity differed significantly between the resistance manipulation conditions ($p = .027$). A similar pattern of correlations was not found for positive brand associations.

More specifically for the humor brands (i.e., brands that had been paired with humor), we calculated the correlation between the average RT in the recognition task and the average RT on negative trials in the evaluative priming task (after controlling for a participant's individual mean RT on negative trials). We found a significant correlation in the resistance condition, $r(42) = .37, p = .017$, but not in the control condition, $r(41) = .13, p = .424$, indicating that *more* distraction posed by humor correlates with *less* brand negativity due to resistance. These correlations between humor distraction and brand negativity differed significantly between the resistance manipulation conditions ($p = .042$). We did not find this relation between humor distraction and positive brand associations.

These results confirmed our hypotheses. First, the evaluative priming data showed that resistance generates negative brand associations, unless distraction prevents their formation. Furthermore, we found direct evidence that distraction underlies the relation between humor and negative brand associations due to resistance: the more humor distracted from brands, the less brand negativity was observed. Furthermore, associating a brand with humor elicited positive brand associations, irrespective of resistance or distraction. In general

The aim of Experiment 3 was to replicate these findings on a consumer behavior dependent measure. This application is important because the measurement of inner cognitive processes does not always translate directly into overt behavior (Baumeister et al., 2007). Although research shows that implicit attitude measures can predict brand choice (Gibson, 2008; Maison et al., 2004; Strick et al., 2009), they do not always predict it (Friese, Hofmann, & Schmitt, 2008). Experiment 3 included a measure of brand coupon choice (Bushman, 2005; Strahan, Spencer, & Zanna, 2002). Although coupon choices are not technically consumer purchases (i.e., the consumer has to redeem the coupon), numerous studies have shown that coupons increase product sales (e.g., Bawa & Shoemaker, 1989; Schindler, 1992).

To build on and extend the findings of the previous experiment even further, we included an individual differences measure rather than a manipulation of resistance. Consumers vary considerably with respect to their tendency to react with resistance to influence attempts (Briñol, Rucker, Tormala, & Petty, 2004; Shakarchi & Haugtvedt, 2004), and the effect of humorous advertising may be moderated by this tendency. Consumers with a higher tendency to react with resistance should be more susceptible to humor in ads than consumers with a lower tendency to react with resistance. More specifically, according to the cognitive model we adhere to, consumers with high resistance should be more susceptible to distracting versus nondistracting ads than consumers with low resistance.

In Experiment 3, all participants received the same mild resistance manipulation, which was expected to evoke considerable resistance in some participants but less in others, depending on their chronic resistance tendency. Furthermore, we expected that the level of resistance would correlate with a preference for brands presented with humor and other distracting stimuli relative to brands presented without distraction.

Experiment 3

Method

Participants and design. Forty-one students of the Radboud University Nijmegen (10 males) participated (mean age = 20.88 years, $SD = 2.94$), receiving course credits or 2 Euros in return. The experiment had a 2 (picture distraction: distracting or nondistracting) x 2 (picture valence: positive or neutral) within participants design. Resistance was included as a continuous factor.

Stimulus materials. To induce distraction and positive affect, Experiment 3 used emotionally laden pictures instead of texts. We used 15 humorous pictures (i.e., distracting positive pictures), 15 nondistracting positive pictures, 15 distracting neutral pictures (pictures in which simple math problems were embedded), and 15 nondistracting neutral pictures that

have been used successfully to elicit positive affect and distraction (see Strick et al., 2010b, Experiment 1 for examples). Pilot testing of these pictures (reported in Strick et al., 2010b) showed that the humorous and nondistracting positive pictures elicited more positive feelings than the distracting neutral and nondistracting neutral pictures, respectively $M = 4.33$ ($SD = 0.77$); 4.48 ($SD = 0.81$); $M = 3.51$ ($SD = 0.78$); $M = 3.47$ ($SD = 0.72$) on a 1-7 scale.

Moreover, the humorous and distracting neutral pictures took longer to process than the nondistracting positive and nondistracting neutral pictures, respectively $M = 6899$ ($SD = 1616$); $M = 6714$ ($SD = 1441$); $M = 4810$ ms ($SD = 1353$); $M = 4751$ ($SD = 1217$). Moreover, the distracting pictures distracted more attention from brands than the nondistracting pictures (Strick et al., 2010b).

As consumer brands we used four energy drink brands that were unknown to the participants.

Procedure. All participants received the message that the experiment aimed to change their opinions about brands just like in advertisements. Because this instruction included only a single resistant manipulation (forewarning of being influenced, Wood & Quinn, 2003), we expected considerable resistance in some participants but less in others, depending on chronic resistance tendency.

After the instruction all participants went through a similar evaluative conditioning procedure as in Experiment 2, this time using humorous and control pictures instead of texts. After the evaluative conditioning procedure and a subsequent 3-minute filler task, participants were asked to imagine that the producer of the energy drinks offered them a total of eight discount coupons, each worth 50 eurocents off the purchase price of the brands. Participants were asked to write down how many coupons of each brand they wanted (similar to Bushman, 2005; Strahan et al., 2002). They could select coupons of the four experimental brands and one new brand.

Next, as in Experiment 1 and 2, participants indicated their level of resistance. We found substantial variance in resistance. Half of the participants ($N = 20$) scored below the scale midpoint (1-3), whereas the other half ($N = 21$) scored on or above it (4-7).

In the contingency awareness test, participants assigned 19% of the brands to the correct pairing picture, which did not deviate significantly from chance level, $t(40) = -1.46$, $p = .15$. Contingency awareness did not correlate with the level of reported resistance, nor with any of the effects reported below.

Results

Coupon choice. Regarding the effect of picture valence, participants on average chose more coupons of brands presented with positive pictures ($M = 3.59$, $SD = 1.64$) than of brand presented with neutral pictures ($M = 2.58$, $SD = 1.36$), $F(1, 39) = 5.39$, $p = .026$, $\eta^2 = .12$. This main effect was irrespective of resistance. They chose 1.85 ($SD = 1.42$) coupons of the new brand.

Regarding the effect of picture distraction, we calculated the relative preference for brands presented under distraction by subtracting the number of coupons chosen for brands presented with nondistracting stimuli from the number of coupons chosen for brands presented with distracting stimuli. This index was then regressed on resistance level. As expected, resistance turned out to be a significant predictor of preference for brands presented under distraction, $Beta = .475$; $t(39) = 3.33$, $p = .002$. Note that higher preference for the brands presented under distraction automatically means lower preference for the control brands.

Looking specifically at the effect of humor, we found that resistance significantly predicted relative preference for the humor brand, $Beta = .447$; $t(40) = 3.12$, $p = .003$.

These results indicate that a higher level of chronic resistance leads consumers to prefer brands that are presented with humor and other distracters to brands that are presented

without distraction. The results of Experiment 2 suggest that this tendency is due to the prevention of negative brand associations under distraction. Furthermore, the results again confirm that associating brands with positive stimuli enhances their attractiveness, irrespective of resistance or distraction.

Discussion

These experiments show that humor is a useful strategy to prevent the effects of resistance on negative brand associations. This research contributes to the literature on resistance and humor in advertising in several ways. Previous research indicated that humor reduces negative responses to ads, but it was still debated whether the underlying mechanism was affective, cognitive, or both (Cline & Kellaris, 1999; Eisend, 2011; Skalski et al., 2009). By separately manipulating distraction and positive affect, this research provides direct evidence that a cognitive, rather than affective, mechanism was responsible for the prevention of negative brand associations. The transfer of positive affect from humor to brands was not affected by the resistance manipulation, nor correlated with the strength or changes in negative brand associations, which suggests that brand attitude positivity and negativity were independent (Norris et al., 2010).

Although some may regard the creation of positive brand associations a way to counter resistance - in the sense that the overall brand attitude becomes more positive - it was clear in this study that positive affect did not counter the negative consequences of resistance. Rather, our results indicated that the effect of resistance on negative brand associations remained intact when a brand was associated with positive stimuli. The data reflected that the distracting part of humor is useful to counter resistance, whereas the positivity in humor is useful to enhance positive brand associations.

Whereas previous studies on resistance focused on explicit cognitions and attitudes, this study provides evidence that resistance can change implicit brand attitudes. Implicit

brand attitudes are elicited spontaneously upon re-encountering the brand, for example in the supermarket (Cunningham, Raye, & Johnson, 2004; Fazio, 2001), and are seen as important drivers of spontaneous brand choices (Dempsey & Mitchell, 2010; Gibson, 2008; Strick et al., 2009). Indeed, the results showed that resistance affected overt brand preference, that is, the choice of a brand coupon. These findings thus suggest that resistance can have quite harmful effects on consumers' everyday behavior towards brands. For advertising agencies as well as marketing researchers it is therefore useful to study how resistance can be reduced.

Our findings suggest that ads can influence resistant consumers without them being aware of it. In Experiments 2 and 3, participants were able to explicitly report that they felt resistance to be influenced. In the absence of distraction, this feeling of resistance led to the formation of negative brand associations. However, when distracted, participants did not form negative brand associations; in fact, their negative brand associations were equal to the control group. Hence, people who *think* they resist ads might still show evidence of hidden persuasive effects in hidden implicit associations. Furthermore, in both experiments, the influenced of humor on brand associations was not moderated by the level of resistance or contingency awareness. Hence, even if people forget that a brand was associated with humor, they may still show more positive brand associations. These findings underline the importance of unconscious cognitive processes in consumer behavior (Bargh, 2002; Chartrand, 2005).

Interestingly, there is research showing that even when consumers find humorous ads very irritating, indicating high resistance, these ads may still be persuasive in the long run. Although speculative, this effect can be explained by the dissociation between explicit and implicit attitudes. Irritating ads do not increase explicit attitudes because consumers generate negative explicit thoughts, but at the same time a positive implicit brand association may be formed. Due to differential decay of explicit and implicit attitudes over time (i.e., explicit

attitudes fading faster than implicit attitudes, Wilson, Lindsey, & Schooler, 2000) the positive implicit attitude may prevail and lead to a rebound or sleeper effect (Pratkanis, Greenwald, Leippe, & Baumgardner, 1988). Future research may explore whether implicit associative processes are indeed causing this rebound effect.

Practical Implications

The findings of this study have various practical implications for advertisers. Research on the appropriateness of humor in ads for various product categories shows that humor is more effective to promote hedonic (in contrast to functional) products, and in this case is equally effective when thematically related or unrelated to the product (Gulas & Weinberger, 2006; Rossiter, Percy, & Donovan, 1991). The present findings suggest that resistance is a factor that advertisers should consider when deciding to use thematically related or unrelated humor. When high resistance among consumers is anticipated, unrelated humor should be more effective than related humor, because it can serve as a distraction that reduces negative responses. Thematically related humor, in contrast, serves to attract attention and enhance cognitive responses towards the ad.

Moreover, advertisers could base their decision on thematic relatedness of the humor based on whether they want to be associated with the emotional response it tends to generate. Gentle humor that tends to generate warm smiles should probably be associated with the brand, whereas obnoxious humor that generates laughter but also some degree of shock should probably be unrelated, serving as a distraction without being associated with the brand.

The finding that humor distracted from negative affect transfer suggests that humor is particularly useful for ads that rely on associative processes, such as ads that rely on emotions instead of persuasive arguments (e.g., Aaker, Stayman, & Hagerty, 1986). Moreover, unrelated humor works best for novel instead of mature brands because for novel brands

consumers infer all information about the brand from the ad, which leads to a stronger transfer of affect from the ad to the brand (Eisend, 2011; MacKenzie et al., 1986).

Nonetheless, affect transfer can also take place for two mature brands, Coke and Pepsi, for individuals who did not have any clear initial preference between the brands (Gibson, 2008).

Furthermore, the results indicate that not only humor, but also other distractions can assist advertisers to diminish consumer resistance. Intrusive attention-getting stimuli such as loud music or stunning visuals may not be effective because they raise resistance themselves. However, subtle distractions such as unexpected phrasing or a verbal disruption in the advertising message may work similarly (see Davis & Knowles, 1999; Fennis, Das, & Pruyn, 2004).

Humor reduces resistance, but that does not mean it can undo pre-existing negative brand associations. For example, some product categories tend to activate strong negative reactions, such as tobacco, loan providers, or plastic surgery (Hyman, Tansey, & Clark, 1994). It is possible that humor in ads promoting these products can temporarily dampen negative emotions, which prevents the negative attitude from becoming more negative. However, this is only a short-term solution to the resistance. Once the ad ends and the product gets reviewed, the negative aspects of the product that were hidden by the distraction will be uncovered. Thus, cigarettes and loan providers will probably continue to activate negative emotions even when presented with humor.

An interesting source of resistance that we think is worthy of further investigation are deceptive claims, i.e., claims that create a false or incorrect belief about the brand (Olson & Dover, 1978). Strikingly, a recent content analysis of television ads in the U.K. found deceptive claims in 73.5% of humorous ads, and 74.5% of these were masked by humor, meaning that the processing of the deceptive claims was interrupted by the subsequent immediate presentation of a joke (Shabbir & Thwaites, 2007). Given that distraction

interferes with the rejection of false information (Gilbert, 1991; Gilbert, Krull, & Malone, 1993), this unethical use of humor may be quite effective.

The results of this study highlighted the usefulness of using humor in ads. Humorous ads evoke positive responses in consumers with and without resistance to influence. Humor withdraws attention from brands, but does not hinder the formation of positive brand associations. When resistance increases, distraction is even beneficial in advertising: it enhances advertising effectiveness by preventing negative brand associations. These findings suggest that advertisers could use, and abuse, the incongruities of humor to avoid consumer resistance.

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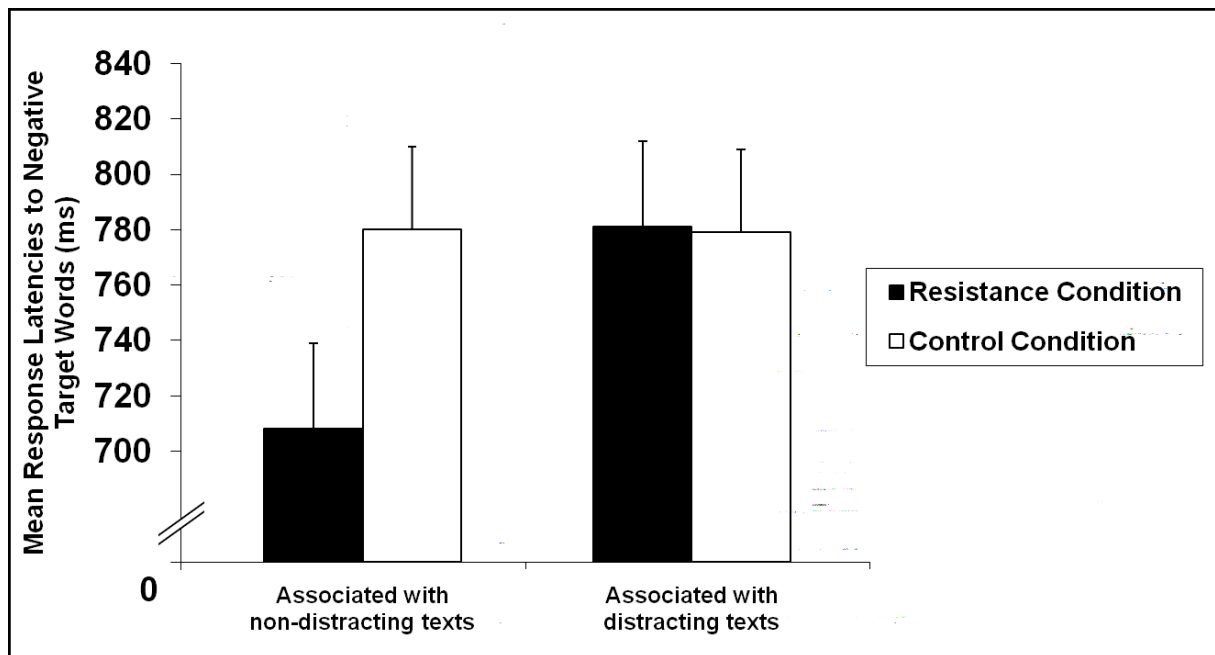


Figure 1. Nontransformed mean reaction times in evaluative priming task to negative targets after priming with brands associated with distracting or nondistracting texts in the resistance and control condition, Experiment 2. Error bars represent standard errors of the means.