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# Anger as a Hidden Motivator: Associating Attainable Products With Anger Turns Them Into Rewards

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Harm Veling<sup>1</sup>, Kirsten I. Ruys<sup>1</sup>, and Henk Aarts<sup>1</sup>

## Abstract

The authors examined whether creating associations between products and anger, a negative but also approach-related emotion, motivates people to get or invest in these products when these products are considered attainable. Experiment 1 demonstrated that participants spontaneously spent more physical effort to get anger-related (compared to neutral) products they could attain as gifts. Experiment 2 showed that participants paid more money for anger-related (compared to neutral) products and thus perceived them as more valuable, regardless of whether the anger-product association was established consciously or unconsciously. Importantly, Experiment 2 also revealed that anger-related products were only perceived as more valuable when they were considered in terms of attainability. The authors conclude that anger can be a hidden motivator: Anger-related products that are perceived in terms of attainability act as rewards that motivate people to obtain these products.

## Keywords

anger, unconscious, money, reward, approach

How to motivate people to spend valuable resources on specific products is an important question in various domains of behavioral science. One way to accomplish this goal is by creating associations between specific emotions and products to increase the perceived desirability or value of such products (e.g., Gorn, 1982; Stallen et al., 2010; Strick, van Baaren, Holland, & van Knippenberg, 2009; Stuart, Shimp, & Engle, 1987), which may ultimately motivate people to invest resources (e.g., effort or money) to obtain them. This often implicit affective influence on behavior pertains especially to common products of low involvement because people do not think much about these products before they purchase them (e.g., Gibson, 2008; Strack, Werth, & Deutsch, 2006).

Whereas previous research on implicit affective influences of products on behavior has mainly focused on whether and how positive emotional associations with products influence evaluations (e.g., Gibson, 2008; Gorn, 1982; Stuart et al., 1987), and motivate behavior (e.g., Reimann, Zaichkowsky, Neuhaus, Bender, & Weber, 2010; Stallen et al., 2010; Veltkamp, Custers, & Aarts, 2011), less is known about the effects of establishing associations between negative emotions and products. Here, we examined motivational responses to products that were associated with anger; an emotion that can be strong and pervasive, and is frequently encountered by people in different situations (e.g., Bagozzi, Gopinath, & Nyer, 1999; Wood & Moreau, 2006). For example, anger is used in advertising contexts to promote products. Television commercials for lion candy bars and the package of lion candy bars

often display what appears to be an angry lion. Creating an association between a product and anger cues may at first sight seem inopportune to motivate people to buy these products. That is because anger cues can serve as basic threat signals that may elicit avoidance behavior (Blair, 2003). Recent research shows, however, that anger cues can also trigger approach behavior (Carver & Harmon-Jones, 2009) suggesting that anger can actually motivate people to invest resources in anger-related products. We currently tested this counterintuitive possibility.

To date, little research has examined responses to anger-related products (i.e., products that have been repeatedly encountered near emotional anger cues). In one recent study, avoidance behavior to anger-related objects (compared to control objects) was predicted, but no significant effects were found (Houben, Havermans, & Wiers, 2010). Instead, researchers have examined behavior toward anger cues (e.g., angry facial expressions), or motivational direction of behavior when experiencing anger. This work has revealed that angry facial expressions can serve as basic threat signals that quickly grasp attention and freeze behavior (e.g., Fox et al., 2000; Roelofs,

<sup>1</sup> Department of Psychology, Utrecht University, Utrecht, Netherlands

## Corresponding Author:

Harm Veling, Department of Psychology, Utrecht University, PO Box 80140,  
3508 TC Utrecht, Netherlands  
Email: h.veling@uu.nl

Hagenaar, & Stins, 2010; Wilkowski, in press). Moreover, it has been shown that anger is experienced as negative emotion (e.g., Harmon-Jones, 2003).

Interestingly, however, recent research has revealed that anger is also strongly associated with approach motivation (for a review, see Carver & Harmon-Jones, 2009). For instance, perception of angry faces has been shown to reinforce approach motor movements (Adams, Ambady, Macrae, & Kleck, 2006; Wilkowski & Meier, 2010), and experiencing anger has been implicated in approach motivation underlying goal pursuit (Berkowitz, 1989; Harmon-Jones, Sigelman, Bohlig, & Harmon-Jones, 2003). In fact, anger often arises when approach-related goal pursuit has been blocked and motivates people to overcome any obstacles (Carver & Harmon-Jones, 2009). Moreover, experiencing anger biases attention toward rewarding stimuli in the environment (Ford et al., 2010), and trait anger is related to reward sensitivity measured with the Behavioral Activation System Scale (Carver, 2004; Harmon-Jones, 2003). Finally, research has shown that cortical brain areas involved in anger overlap with areas that are receptive to (approach-related) positive affect (e.g., van Honk & Schutter, 2006).

The fact that anger is negative and threatening, and also related to approach motivation, raises the question of how behavior to anger-related products unfolds. Based on the research described above that shows a strong link between anger on one hand and reward sensitivity and goal-pursuit on the other hand, we hypothesize that perception of anger-related products elicits approach motivation once these products are considered in terms of attainability. Perceiving objects in terms of attainability renders the object potentially goal-relevant, and anger, through its approach-related nature, may amplify the extent to which the object then turns into a reward that motivates people to invest resources (e.g., effort or money) to obtain it. We tested this hypothesis in two experiments. In Experiment 1, we examined whether participants would recruit more effort to obtain an anger-related product that was presented as a possible gift. In Experiment 2, we established anger-product associations consciously or unconsciously and subtly manipulated whether anger-related products were perceived as personally attainable, or not.

## Experiment 1

Experiment 1 served as a first examination of the hypothesis that participants would invest more effort to obtain an anger-related product when the product is considered in terms of attainability. We first presented a product (i.e., a note block) simultaneously with either angry or neutral cues (facial expressions) as is often done in printed advertisements or billboards. Next, we offered participants this note block as a possible gift. Companies sometimes offer gifts to lure people into buying certain products (e.g., Darke & Chung, 2005; Raghurir, 2004), and we tested whether participants would invest more effort to obtain a gift associated with anger. More specifically, we told participants they could obtain the note block by taking

it out of a letter tray. In fact, the note block was stuck, and attached to a device that measured the force used to take the note block out of the letter tray. This allowed us to measure the physical effort participants invested to obtain the product. We expected that participants would use more effort to get the anger-related note block than the neutral-related note block.

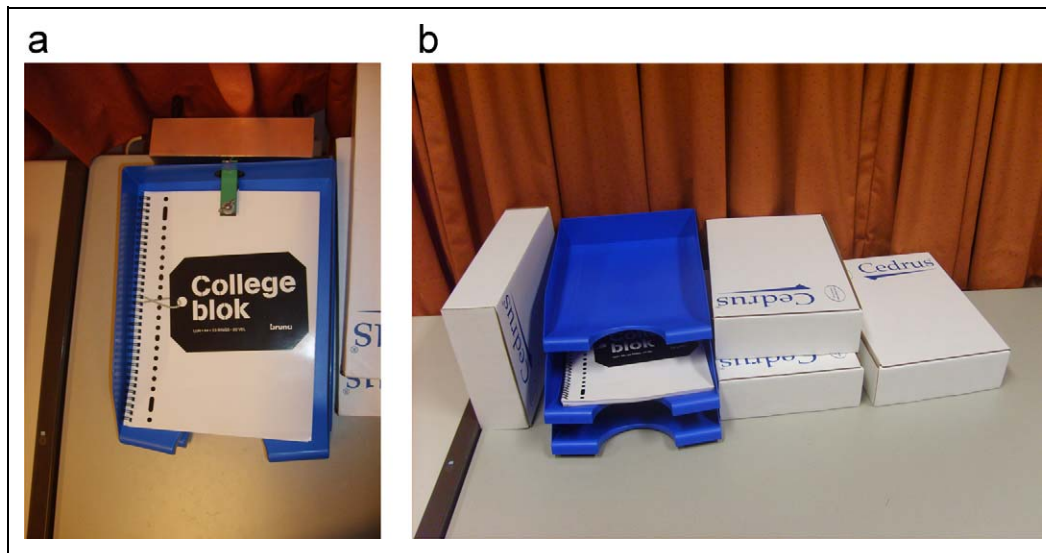
## Method

**Participants and design.** Forty-five undergraduates (26 women) received cash payment and a note block for their participation. Participants were randomly assigned to the anger-related product condition or the neutral-related product condition.

**Stimuli.** We selected eight angry facial expressions and eight neutral expressions (half male and half female faces) from the NimStim Set of Facial Expressions (Tottenham et al., 2009). Furthermore, we selected one picture of a note block (our experimental product), and four pictures of filler products (e.g., a bottle of shampoo). With these stimuli we constructed 30 different displays each containing four facial expressions and two products. The stimuli were presented on a black background in an invisible  $3 \times 3$  grid (leaving three spaces of this grid empty). The displays also contained between 11 and 15 small green and red dots (the number of red dots ranged from 5 to 9).

The experimental displays contained the note block (presented on two locations) and either four angry facial expressions (anger-related product condition) or four neutral expressions (neutral-related product condition). We constructed five versions of such displays for each condition that varied the location of the note block and facial expressions. Moreover, to ensure that each participant was presented with the same number of angry and neutral expressions during the experiment, we also constructed five displays that contained a filler product (presented on two locations) and either four neutral expressions (anger-related product condition) or four angry facial expressions (neutral-related product condition). Finally, we constructed 15 filler displays that contained two additional filler products, two angry expressions and two neutral expressions. Thus, participants in both conditions were presented with 25 displays that contained the same products and the same number of neutral and angry facial expressions. The crucial difference between conditions was the presentation within displays of the note block with angry facial expressions (anger-product condition) or neutral facial expressions (neutral-related product condition).

**Pulling device.** To assess invested effort to obtain the note block, we developed a pulling device that was technically similar to a BIOPAC handgrip device used in prior work (e.g., Aarts, Custers, & Marien, 2008), but that was modified such that it was attached to a note block and also firmly to a table. The pulling device was attached to the note block placed in a letter tray, so that we could measure pulling strength (in Newton) while participants tried to take the note block from the



**Figure 1.** The setup of the pulling device in Experiment 1. A. Note block attached to the pulling device viewed from above without the top letter tray. B. Note block attached to the pulling device from the participants' perspective.

letter tray (see Figure 1A). We placed an (empty) letter tray on top of the letter tray that contained the note block to cover the fact that the note block was attached to the pulling device. We placed an empty letter tray on the bottom so that the note block could be grasped easily (see Figure 1B). This experimental setup ensured that participants pulled the note block horizontally toward the body to get it out of the letter tray.

**Procedure.** Participants read that the study consisted of several tasks concerning consumer products and visual attention. The first task was presented as a test of people's ability to focus attention to targets among distracters in everyday life environments. Participants read that they would be presented for a limited amount of time with visual displays containing red and green dots and that the task was to count the number of red dots. We used this procedure because participants may otherwise process the products and faces more deliberately than they would do in the busy and complex environment outside the psychological laboratory (e.g., Bargh, 2002; Dijksterhuis, Smith, van Baaren, & Wigboldus, 2005). Moreover, and to make the task more realistic, common products and faces would also appear that participants should ignore. Each trial started with a fixation cross for 2000 ms that was immediately followed by a visual display that appeared for 2000 ms. Subsequently, participants were asked to indicate the number of red dots they had counted. After an intertrial interval of 2000 ms the next trial started. After one example display, participants received the 25 displays as described above in random order. In the angry-related product condition, a note block was 5 times presented with angry faces and in the neutral-related product condition with neutral faces. Note that in this first task all participants were presented with the same stimuli, but the crucial difference between conditions was the presentation of the note block with either angry faces or neutral faces.

Then, participants received the second task. Specifically, they learned that they could take home a note block as a gift, and thus were instructed to take one of the note blocks that was placed in the letter trays (in fact there was only one note block). We deliberately suggested that there may have been more note blocks previously to make it reasonable that three letter trays were present. The note block was placed on a table behind the participant about 3 m away, so that participants were required to stand up and walk up to the note block. Next, participants grasped the note block, and we measured the strength of their attempt to get it out of the letter tray. We identified the maximum pulling force applied by each participant with AcqKnowledge software, and used this as our dependent variable. Next, the experimenter gave the participants another (similar) note block and instructed participants to continue to work on the computer. We asked participants about the hypothesis under investigation with a funneled debriefing procedure (Bargh & Chartrand, 2000), but none of the participants expressed any awareness of the hypothesis under investigation.

## Results and Discussion

The accuracy of the dot counting task was 76%, and did not differ between conditions,  $F < 1$ . We log-transformed the data to normalize the distribution, but analyses provided similar and reliable results when untransformed data were used. We report untransformed means for clarity. To test whether greater force was recruited to obtain the note block when it was associated with anger compared to no emotion, we performed a one-way analysis of variance (ANOVA) on the maximum pulling force. As expected, participants pulled harder in the anger-related condition ( $M = 18.23$ ;  $SE = 1.82$ ) compared to the neutral-related condition ( $M = 12.73$ ;  $SE = 1.78$ ),  $t(44) = 2.04$ ,  $p < .05$ ,  $d = .61$ .

Experiment 1 shows that participants invest more resources (physical effort) to obtain a product that is associated with anger in a context where the object was perceived in terms of attainability. This effect is the result of an anger-product association rather than the result of perceiving anger cues per se, as participants in both conditions had seen the same amount of neutral and angry faces during the manipulation. Nonetheless, because we did not manipulate whether the product was perceived as attainable or not, it is still unclear whether anger turns objects into rewards only when they are considered in terms of attainability. This question was addressed in Experiment 2.

## Experiment 2

In Experiment 2, we first created the association between a product and angry or neutral facial expressions with or without awareness (i.e., by presenting the product supraliminally or subliminally respectively). In Experiment 1, we did not manipulate whether anger-product associations were established consciously or unconsciously. Given research on the role of consciousness in social influences on behavior (Bargh, 2007; Baumeister & Masicampo, 2010), we therefore deemed it interesting and important to examine whether any observed effects depend on conscious reflective processes concerning the relation between anger cues and the product (Gawronski & Bodenhausen, 2006; Strack & Deutsch, 2004), or whether effects may be even impaired by such conscious cognitive processes (e.g., Wilson & Gilbert, 2008). We used a bottle of a familiar brand of mineral water as experimental product.

Next, we crossed our association manipulations with two other conditions. In one condition (i.e., the attainable condition), we told participants that they could buy the bottle of water and asked them to indicate how much money they were willing to pay for this product. Indicating willingness to pay for a product offers a window to an individual's perceived value of products, and ensured that participants considered the product in terms of personal attainability. Moreover, indicating how much one wants to pay for a product is a common way to obtain products for people across a variety of social situations (e.g., street markets, auctions; e.g., Bajari & Hortacsu, 2003; Stern & Staford, 2006; Zhu, Chen, & Dasgupta, 2008). As money is a valuable resource for people, all things being equal, willingness to pay more for the product indicates that participants perceive the product as more valuable for which they are more motivated to get it. We predicted that participants would offer more money for anger-related compared to neutral-related products.

We also created a control condition in which participants were asked to indicate how much other people would pay for the product (i.e., in a supermarket). Thus, in this control condition, participants did consider the product in terms its value, but did not consider it in the context of personal attainability. This way we could test whether anger only increases value of the product and willingness to pay more money for it when the product is perceived attainable.

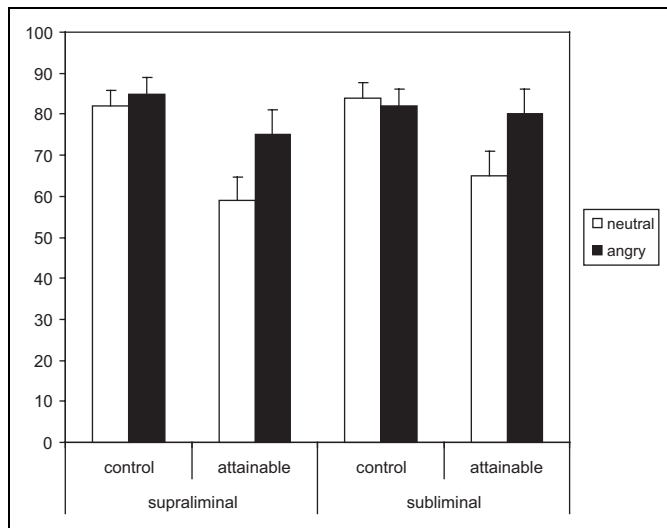
## Method

**Participants and design.** One hundred thirty-six undergraduates (76 women) received cash payment for participation. Participants were randomly assigned to a 2 (exposure: supraliminal, subliminal)  $\times$  2 (context: control, attainable)  $\times$  2 (type of product: anger-related, neutral-related) between-participants design.

**Stimuli.** We selected four angry and four neutral expressions (half male and half female faces) from the NimStim Set of Facial Expressions (Tottenham et al., 2009). Moreover, we selected a picture of a bottle of a familiar brand of mineral water as our experimental product. This product is widely available to our participant population such as in supermarkets, bars, canteens, and vending machines across the university campus, and all participants were familiar with the brand product. We also constructed a mask to present the bottle subliminally. Previous work employing these stimuli has established that short (33 ms) masked presentation of the bottle on a 60 Hz CRT computer screen prevents it to enter conscious awareness (e.g., Veling & Aarts, 2009).

**Procedure.** After receiving informed consent, participants received instructions on a computer. They read that the study consisted of several tasks concerning consumer products and visual attention. The first task was presented as a test for people's ability to focus attention on briefly presented information. Specifically, participants were instructed to watch for the letters A or L that would be presented very briefly between other types of information. A trial started with a blank screen for 700 ms. Then, a premask appeared for 695 ms, which was immediately followed by the bottle of water (or no stimulus) for either 33 ms (subliminal exposure condition) or 300 ms (supraliminal exposure condition). After a postmask (presented for 200 ms), a neutral or angry facial expression appeared for 700 ms. Finally, the letter A or L appeared for 100 ms immediately followed by a question mark, and participants indicated whether they had seen an A or an L by pressing the corresponding buttons on a QWERTY keyboard. Then, participants received accuracy feedback for 1000 ms. Participants were encouraged to attend very carefully to the screen during the full sequence of events.

The task consisted of 40 trials. Each of the eight selected faces was presented on five trials (resulting in 20 angry and 20 neutral expression trials). The bottle of water was presented on 20 trials and no stimulus was presented on the other 20 trials. In the anger-related product condition, the bottle of water always preceded angry expressions, and a blank screen (i.e., trials were no stimulus was presented) preceded neutral expressions. In the neutral-related product condition, the bottle of water always preceded neutral expressions and the empty screen (no stimulus) preceded angry expressions. Thus, across conditions participants were all presented with the same stimuli in the first task. The only difference between conditions was the exposure duration of the bottle of water (or no stimulus), and the pairing of the bottle (or no stimulus) with either angry faces or neutral faces.



**Figure 2.** Mean value of the bottle water in cents in Experiment 2 as a function of exposure, context, and type of product. Error bars = SE.

Next, participants proceeded to the second task. They learned that we were interested to obtain information about certain consumer products. In the control condition, participants were presented with the picture of the bottle of water, and we asked to indicate how much people would pay for the product (in cents) in supermarkets. In the attainable condition, participants were told that they could obtain the bottle of water, and indicated (in cents) how much they were willing to pay for the bottle of water. After collecting the dependent variable, participants indicated what product had been presented between the two masks in the first task. Participants in the supraliminal condition all indicated that they had seen a bottle of water. Importantly, in the subliminal condition, none of the participants reported having seen a bottle of water or any other water-related product. This confirms that they consciously perceived the bottle in the supraliminal condition, but seemingly not in the subliminal condition.

Finally, we asked participants about the hypothesis under investigation with a funneled debriefing procedure, and participants were thanked and paid. Funneled debriefing revealed that all participants were unaware of our hypothesis.

## Results and Discussion

Accuracy in the letter detection task was 95%, and did not differ between conditions,  $F < 1$ . To test whether associating a bottle of water with anger would motivate participants to get it as a result of increased value only in the attainable condition, we performed a 2 (exposure: supraliminal, subliminal)  $\times$  2 (context: control, attainable)  $\times$  2 (type of product: anger-related, neutral-related) between participant ANOVA on the monetary value of bottle judgments. The pattern of means is displayed in Figure 2. We obtained main effects of context,  $F(1, 128) = 13.37, p < .01, \eta_p^2 = .10$ , and type of product,  $F(1, 128) = 4.71, p = .03, \eta_p^2 = .04$ , which were qualified by the predicted interaction between context and type of

product,  $F(1, 128) = 4.52, p = .04, \eta_p^2 = .03$ . Follow-up analyses showed no reliable difference of type of product within the control condition, all  $F$ s  $< 1$ . Importantly, we obtained a reliable effect of type of product in the attainable condition,  $F(1, 64) = 9.71, p < .01, \eta_p^2 = .07$ . As predicted, participants were willing to pay more money for the anger-related compared to the neutral-related product. Moreover, the absence of a reliable exposure by type of product interaction within the attainable condition,  $F < 1$ , showed that this increase in the amount of money participants were willing to pay for the product was independent of whether the relation between the product and emotion had been established with supraliminal or subliminal stimuli. Within the attainable condition, the effect size of the effect of type of product was medium to large in both the supraliminal ( $d = .63$ ) and subliminal conditions ( $d = .69$ ).

Another way to interpret the context by type of product interaction is that associating a product with anger ensured that participants were willing to pay for the product what other people would pay for it (or the indicated market value; effect of context within anger-related product condition,  $F < 1.4, ns$ ), whereas without this anger association participants were not willing to pay this value (effect of context within neutral-related product condition,  $F(1, 128) = 14.42, p < .01, \eta_p^2 = .12$ ). This latter result is consistent with the general observation that people are usually willing to pay less for a product compared to the market price (e.g., Brown, 2005; Horowitz & McConnell, 2002; Kahneman, Knetsch, & Thaler, 1990). Importantly, the fact that participants were willing to pay the estimated market price for the bottle of water only when the bottle had been associated with anger suggests that anger increased motivation to obtain the anger-related product.

Results of Experiment 2 provide three important new insights. First, participants were willing to spend more money to obtain an anger-related product compared to a neutral-related product, even though they did not estimate the anger-related product as more valuable per se. The fact that we obtained reliable differences in the attainable condition, but not in the control condition indicates that the value scores in the attainable condition reflect willingness to invest resources rather than mere estimations of the product's value. Moreover, Experiment 2 demonstrates that perceiving an anger-related product in terms of its attainability is sufficient to increase motivation to obtain it.

Second, increased resource investment to obtain anger-related products was found regardless of whether participants consciously or unconsciously perceived the stimuli during the association task. In fact, none of the effects differed reliably as a function of exposure duration. The most parsimonious account for this finding is that the motivational significance of the anger cues (approach) became associated with the presented product in a similar way, and it did not matter whether the association was established subliminally or not.

Finally, Experiment 2 revealed that the effects of anger associations on resource investment emerge when a familiar brand product is used. This is noteworthy, as previous work suggests that affecting responses to products and stimuli

through subtle conditioning manipulations is often more effective for unfamiliar products or stimuli, than familiar products (Gibson, 2008; Shimp, Stuart, & Engle, 1991; Ruys & Stapel, 2009). Thus, angry facial expressions appear powerful motivational cues that even affect motivational responses to a product of a familiar brand.

## General Discussion

The current research reveals that participants are motivated to invest more resources (effort or money) to obtain anger-related products independent of whether the product–anger association is established consciously or unconsciously. Moreover, anger conveyed by a product increases desire or value of this product only when this product is perceived as attainable. The current findings converge well with prior work showing that anger is an approach-related affect (e.g., Carver & Harmon-Jones, 2009; Harmon-Jones, 2004), and extend these findings by showing that anger can be a motivator to obtain products once these are considered in terms of attainability.

The present work also speaks to other recent findings that showed that anger-related objects elicit approach responses in a reward context (i.e., when there was the opportunity for participants to win an object by squeezing very hard into a hand-grip; Aarts et al., 2010). Although this finding suggests that anger-related products elicit approach when these products are perceived in terms of attainability, the manipulation also involved a competitive context in which the product was explicitly presented as a reward for performance (i.e., harder squeezing would increase chances to win the object). As competition and anger are closely related (e.g., Berkowitz, 1989; DeSteno, Dasgupta, Bartlett, & Cajdric, 2004; Potegal, 1979) it is unclear whether it is the context of competition, the perception of an object as being attainable, or a combination of these factors that increased motivation to obtain anger-related objects. The present research suggests that anger turns products spontaneously into rewards when these products are merely perceived in terms of attainability, and hence provides novel insight under which circumstances anger-related products can elicit approach.

Whereas our studies show that anger can increase the amount that participants are willing to spend on a product, research has also shown seemingly opposite effects of anger. Specifically, very short (i.e., 16 ms) subliminal presentation of angry faces has been shown to decrease willingness to pay for a product (Winkielman, Berridge, & Wilbarger, 2005). A notable difference between this research and our experiments is that we examined responses to anger-related products rather than the direct behavioral effect of presenting angry faces. Moreover, we presented the angry faces for much longer durations (i.e., 2000 and 700 ms). Previous work has established that when negative emotional expressions (e.g., fearful, disgusted, but also angry) are presented very briefly the valence of the face is extracted (a negative signal) but not the specific emotion (Ruys & Stapel, 2008). Negative affect signals have been shown to inhibit behavior and motivation (e.g., Aarts, Custers, & Holland, 2007; Veling, Aarts, & Stroebe, 2011;

Wilkowski & Robinson, 2006), and very brief exposure to angry faces can hence be expected to decrease (instead of increase) willingness to pay (Winkielman et al., 2005). In contrast, the current observed increased motivation to obtain anger-related products is better understood by assuming that an association between products and anger (i.e., conveyed by the angry faces) was established. The anger–product association motivated people to get the product once the product was considered attainable, as anger can operate as an approach-related response in the context of pursuing goals or rewards (Aarts et al., 2010; Carver & Harmon-Jones, 2009). Future research employing systematic comparisons between different emotion–product associations (e.g., happy, anger, fear) should further examine and establish the unique status of anger in motivating behavior toward products as a function of their attainability.

Nonetheless, and despite the fact that the current results are unlikely caused by a mere product–negative affect association, anger-related products may still be evaluated negatively under some circumstances. That is because anger, apart from being an approach-related affect, is also negative in valence (e.g., Carver & Harmon-Jones, 2009). Accordingly, it may be that anger-related products may be liked less in contexts where anger-related products are merely evaluated, but are wanted more once they are perceived as attainable (cf. Berridge, 1996). Future research is needed to examine this intriguing possibility.

One fascinating practical implication of the present research is that anger cues may be used to make money. Specifically, Experiment 2 demonstrates that participants express willingness to pay more money for an anger-related product compared to a neutral-related product before they have actually obtained this product. Such a situation is frequently encountered in social environments such as auctions, and on websites such as eBay (i.e., a website where consumers buy and sell used products) where potential buyers are literally asked to express how much they are willing to pay for products (Bajari & Hortacsu, 2003; Stern & Staford, 2006; Zhu et al., 2008). Interestingly, websites such as eBay provide ample opportunity to present pictures of products, and research has shown that presenting more pictures of specific products on eBay can result in higher winning bids (Stern & Staford, 2006). It would be interesting to explore whether offering products in the context of anger cues also increases the value of winning bids. It is important to note, however, that we assessed enhanced resource recruitment in the laboratory, and our measures directly followed our manipulation. Hence, more research is needed to examine the true potential of anger cues as an applicable marketing tool.

To conclude, even though anger and anger cues may be perceived as negative and threatening (Blair, 2003; Fox et al., 2000; Wilkowski, in press), the present work suggests that the motivational significance of anger, that is, as an approach-related affect (e.g., Carver & Harmon-Jones, 2009; Harmon-Jones, 2004) can nevertheless act as a strong motivator to obtain products. Once associated with products, anger appears to boost determination toward attainable products rather than

function as a signal of threat (Harmon-Jones, Schmeichel, Mennitt, & Harmon-Jones, in press). It may be that even though the motivational significance of anger cues (approach) is less salient to people than the social significance of such cues (e.g., as threatening; for a similar argument, see Harmon-Jones, et al., in press), the motivational significance of anger ultimately determines responses to anger-related products when they are considered attainable. In this sense, anger can be considered a hidden motivator.

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## Bios

**Harm Veling** is a postdoctoral fellow at Utrecht University and interested in behavior regulation.

**Kirsten I. Ruys** is an assistant professor at Tilburg University and interested in emotions.

**Henk Aarts** is a cognitive social psychology full professor at Utrecht University.