

SHUT YOUR EYES AND THINK OF SOMETHING ELSE: SELF-ESTEEM AND AVOIDANCE WHEN DEALING WITH COUNTER-ATTITUDINAL INFORMATION

Daphne V. Wiersema, Frenk van Harreveld, and Joop van der Pligt
University of Amsterdam

Two studies investigated the hypothesis that people with low self-esteem are more inclined to avoid information that is incongruent with value-relevant attitudes than people with higher levels of self-esteem. In Study 1 participants had the opportunity to postpone and potentially avoid reading a counter-attitudinal article. Results confirmed our prediction. Results of Study 2 indicated that low self-esteem participants performed better than high self-esteem participants on a distracting task when confronted with the prospect to receive counter-attitudinal information. These findings show that low self-esteem individuals tend to avoid information that is incongruent with an attitude that is strongly linked to their self-concept.

The phrase “Tell me what you read, and I tell you who you are” illustrates the popular belief that the books we read reveal something about who we are. Likewise, our possessions are also believed to reveal something about our personality (Gosling, Ko, Mannarelli, & Morris, 2002). Not surprisingly, objects like our car, clothes, and that magnificent designer couch can become part of our extended self-concept (Belk, 1988). We argue that this idea not only applies to physical properties but also to beliefs, attitudes, and preferences. Abelson (1986) was one of the first to characterize beliefs and attitudes as “possessions” (see also De Dreu & Van Knippenberg, 2005).

Attitudes that are linked to the self-concept and important personal values are termed value-relevant attitudes (Katz, 1960). They reflect who we are and what we stand for, and as such they are associated with relatively high levels of involvement (Johnson & Eagly, 1989; Katz, 1960). Typical examples of such attitude objects are organ donation, animal welfare, abortion, and the death penalty. Hence,

Daphne V. Wiersema is now at the Department of Applied Psychology, Amsterdam University of Applied Psychology, Amsterdam, The Netherlands.

Correspondence concerning this article should be addressed to Daphne V. Wiersema, Department of Applied Psychology, Amsterdam University of Applied Psychology, Wibautstraat 80–86, 1091 GP Amsterdam, The Netherlands; E-mail: d.v.wiersema@hva.nl.

people identify with (and can be identified by) their value-relevant attitudes. In fact, certain groups in society, such as animal-welfare groups or pro-life groups, are based on the values and attitudes they share. Not surprisingly, having people think or write about personally important values is often used as a manipulation to affirm self-integrity (e.g., Blanton, Pelham, DeHart, & Carvallo, 2001; Steele, 1988; Steele & Liu, 1983; Steele, Spencer, & Lynch, 1993).

Prior research showed that important, and identity-defining attitudes are vigorously protected resulting in low levels of attitude change (e.g., Brannon, Tagler, & Eagly, 2007; Zuwerink & Devine, 1996). In the present research, we investigate how people defend these self-related attitudes when confronted with counter-attitudinal information. More specifically, we will show that low and high self-esteem individuals adopt different strategies to protect their self-related attitudes.

Research has shown that low and high self-esteem individuals cope differently with threats to their self-concept and self-esteem (e.g., Vohs & Heatherton, 2004). These differences in coping are attributed to different motives of low and high self-esteem individuals. High self-esteem individuals are expected to be motivated to further enhance their self-esteem, while self-protection motives tend to dominate the behavior of low self-esteem individuals (e.g., Alicke & Sedikides, 2009; Baumeister, Tice, & Hutton, 1989; Tice, 1991; Wood, Giordano-Beech, Taylor, Michela, & Gaus, 1994). Or, as Sedikides and Greg (2003) put it:

Given the greater affective vulnerability and cognitive irresolution of people with low self-esteem, it is unsurprising that they prefer to proceed with *caution*, conserving their precious reserves of self-worth and safeguarding their fragile identity, whereas people with high self-esteem, being psychologically robust, prefer to court *risk*, their ego being able to stomach some minor devaluation and their identity some light revision. (p. 121)

We argue that the different motives of low and high self-esteem individuals affect the strategy they adopt to protect their attitudes. For instance, in earlier research we showed that low and high self-esteem individuals differ in how they process counter-attitudinal information (Wiersema, van der Pligt, & van Harreveld, 2010). People low in self-esteem displayed enhanced memory for information that matched their attitude, suggesting they employed an avoidant processing style when dealing with incongruent information. High self-esteem individuals on the other hand had better memory for incongruent information; incongruent information received more attention and elaboration. Note that this latter finding is in line with the idea of high self-esteem individuals taking risks in order to enhance their self-esteem, the risk being that they are not able to refute the counter-attitudinal information resulting in unwanted attitude-change. It is important to note that these effects were confined to attitudes high in value-relevance; that is, situations in which self-threat is high (e.g., Campbell & Sedikides, 1999).

In the studies mentioned above we examined the *processing* of counter-attitudinal information. However, the motivation to protect one's attitudes has also been known to influence willingness to encounter that type of information (e.g., Fischer, Schulz-Hardt, & Frey, 2008). We would like to argue that *avoiding* counter-attitudinal information is a strategy most likely to be employed by individuals low in self-esteem. Their high self-esteem counterparts are likely to feel more confident they can rebut this information and are thus expected to *engage* a counter-attitudinal

message. In the present research we set out to examine this hypothesis and take a closer look at what people do prior to being confronted with incongruent, counter-attitudinal information. In Study 1, participants were given a say in whether and when they would read an essay that was either congruent or incongruent with their attitude. This enabled us to assess their tendency to approach or avoid counter-attitudinal information. We expect high self-esteem individuals to select more counter-attitudinal information than low self-esteem individuals, but only when the attitude in question is perceived as high in value-relevance. In Study 2, we investigate the tendency of low self-esteem individuals to divert their attention away from counter-attitudinal information and high self-esteem individuals' tendency to prepare for an upcoming confrontation with counter-attitudinal information (i.e., anticipatory coping, see Newby-Clark, 2004). To assess the tendency to avoid information we also assessed participants' performance on a distracting task that was administered right before the expected exposure to counter-attitudinal information. Enhanced performance on this task is an indication of avoiding the focal task, while a relatively poor performance is likely to signal anticipatory coping.

STUDY 1

METHOD

Participants. A total of 115 undergraduate students (85 female, 30 male) from the Radboud University Nijmegen and the University of Amsterdam participated for money (€ 3). Their mean age was 20.30 ($SD = 3.18$). Participants were randomly assigned to condition.

Materials and Procedure. Up to 7 participants were tested in one session. Upon arrival, participants were welcomed by the experimenter and were seated behind a personal computer in separate cubicles.

First, self-esteem was measured with the Rosenberg Self-Esteem Scale (Rosenberg, 1965). Items were rated on 9-point scales ranging from 1 (*does not describe me*) to 9 (*describes me*). Next, the study "Turkey and EU membership" was introduced which was supposedly on students' opinions about societal issues, in this case about their opinion about the possible entry of Turkey in the European Union. However, before allowing participants to express their opinion, we manipulated value-relevance with a method that we employed earlier (Wiersema, van der Pligt, & van Harreveld, 2010). This manipulation required participants to rank four issues, including the target issue, in terms of importance for their personal identity. Perceived value-relevance of the target issue was manipulated by systematically varying the importance of the other three issues. In the low value-relevance condition the issue of Turkey and the EU was accompanied by three issues that were expected to be high in value-relevance (euthanasia, developmental aid, and sustainable development). This context should render the target issue less value-relevant. In the high value-relevance condition, the remaining issues were low in value-relevance (the issues concerned street lamps, a television game show, and font sizes on consumer good labels). These issues were expected to increase the perceived value-relevance of the target issue. Next, participants' attitude was measured with one dichotomous item (*pro-con*).

Subsequently, participants were informed that they were about to read an article on Turkey's possible entry in the European Union that supposedly had appeared in a large national newspaper ("De Volkskrant") recently. The title of the article was provided to give an indication of the nature of the content which—depending on participants' attitude—was either pro- or counter-attitudinal. The title was: "Beauty on the outside, ugly on the inside: Why Turkey should not be part of the European Union." Next, participants were informed that they were first to take part in a trial aimed to make participation in psychological research more agreeable by allowing them to determine the order in which they were to carry out the different studies included in the session. The titles of four studies were given, one of which was the study participants were just participating in: "Turkey and EU membership." The other titles were unknown and neutral to participants.

Participants were asked to indicate which study they would like to do first, second, and so on. They were also informed that although they were supposed to complete all four studies, experience taught that there was not enough time to complete all four. Thus, if participants were unwilling to read the article concerning Turkey's entry in the EU, they could procrastinate or even potentially avoid it by assigning it a lower position. After ranking the four studies, participants were thanked and debriefed.

RESULTS AND DISCUSSION

Descriptives and Outliers. A Chi Square Test confirmed that there were no differences in participants' attitudes as a function of condition. The distribution of participants' self-esteem scores was negatively skewed ($M = 6.33$, $SD = 1.02$). The mean rank value assigned to the target experiment was 2.29 ($SD = 1.27$) and participants used the total range (1 to 4). Two participants were excluded due to outlying self-esteem scores (z -score < -3).

Task Avoidance. We expected participants with low self-esteem with positive attitudes to assign a lower value to the target experiment "Turkey and the EU" than participants with higher self-esteem as a means to postpone and/or potentially avoid reading the counter-attitudinal article. However, we expected these differences to emerge only in the high value-relevance condition. Thus, we expected to find a three-way interaction of condition, attitude, and self-esteem.

First, we centered the independent variables according to the recommendations of Aiken and West (1991). Subsequently, condition, self-esteem, attitude and their interaction terms were entered in the regression simultaneously. The three-way interaction was reliable, $t(112) = -2.44$, $p = .016$. There were no other significant effects. Because we expected self-esteem differences to emerge when the article was counter-attitudinal, we performed separate regressions for the positive and negative attitude using dummy-coded variables for attitude using procedures specified by Aiken and West (1991). As expected the interaction of condition and self-esteem was not significant ($p > .2$) for the negative attitude (i.e., when the article was pro-attitudinal). However, a significant interaction was obtained for the positive attitude (i.e., when the article was counter-attitudinal), $t(112) = -2.33$, $p = .022$. In order to further probe this two-way interaction, we tested the simple slopes of self-esteem predicting rank value within conditions separately. The simple slope of self-esteem was only significant in the high value-relevance condition, $\beta = -.40$,

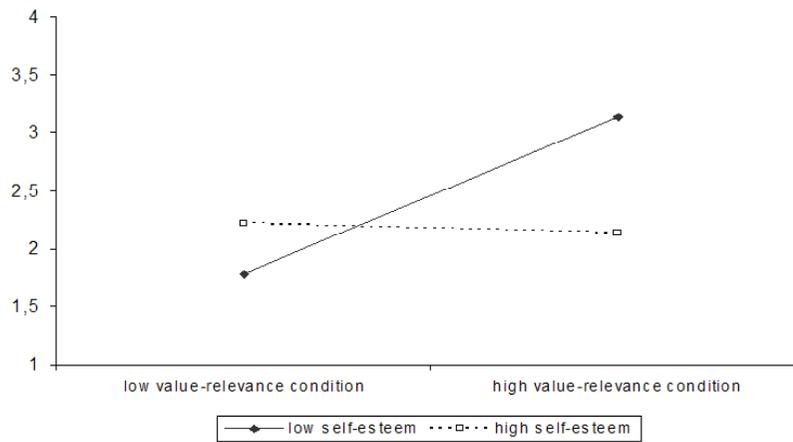


FIGURE 1. Mean rank value assigned to the experiment containing the counter-attitudinal content as a function of condition (low vs. high value-relevance) and self-esteem.

$t(114) = -2.45, p = .016, \eta^2 = .23$. This slope shows the tendency of low self-esteem participants to assign higher rank-values to the counter-attitudinal article compared to high self-esteem participants. This suggests that participants low in self-esteem procrastinated and tried to potentially avoid future confrontation with the counter-attitudinal information (see Figure 1).

A different way of probing the three-way interaction is by testing the two-way interaction of self-esteem and attitude in the low and high value-relevance condition separately. We expected the interaction of self-esteem and attitude to be reliable in the high but not in the low value-relevance condition. Indeed, in the low value-relevance condition this interaction was not significant ($p = .17$). However, in the high value-relevance it was, $t(112) = -2.10, p = .038$. Next, we tested the simple slopes of attitude for low ($-1 SD$) and high self-esteem ($+1 SD$) participants to find out if low self-esteem participants avoid reading a counter-attitudinal article. For high self-esteem participants, the slope was not significant ($p = .66$). However as expected the simple slope of attitude was significant for those low in self-esteem, $t(112) = 2.37, p = .019, \eta^2 = .226$. This simple effect demonstrates that low self-esteem participants assign higher rank values to the target study (i.e., postponing) when having a positive compared to a negative attitude. Hence, when the article was incongruent with their attitude, low self-esteem participants chose to postpone reading it (see Figure 2).

All in all, the results of this experiment indicate that low self-esteem participants are motivated to postpone or even avoid confrontation with counter-attitudinal information pertaining to an attitude high in value-relevance as compared to high self-esteem participants.

Thus, participants with low self-esteem seem motivated to avoid exposure to counter-attitudinal content, but only when dealing with an attitude high in value-relevance. In the next study we further assess the extent of their avoidance motivation in a situation where exposure could not be avoided. More specifically we examine whether participants low in self-esteem are selective in allocating cognitive resources to distracting tasks, depending on whether the expected attitude-

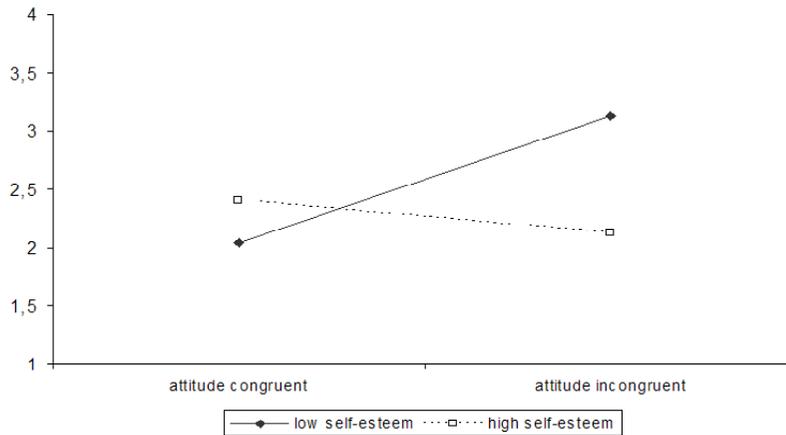


FIGURE 2. Mean rank value assigned to the experiment containing the counter-attitudinal content as a function of participants' self-esteem and attitude within the high value-relevance condition.

relevant information is threatening or not. We expect low self-esteem participants to be eager to invest resources in tasks that are unrelated to the counter-attitudinal content, resulting in better performance on these tasks than their high self-esteem counterparts. Accordingly, in Study 2 we investigate if the desire to divert attention away from counter-attitudinal content also results in better performance on an unrelated task. In this study, participants performed a memory task directly after being informed about an upcoming counter-attitudinal article they would *have* to read. If participants want to avoid thinking about the upcoming counter-attitudinal article, they can do so by investing their resources in the working memory task. We expect this to be the case for low self-esteem participants. For high self-esteem participants we expect performance on the working memory task to be impaired relative to a pre-measure. Impaired performance is taken as evidence of preparation for the upcoming confrontation with the counter-attitudinal article, for instance by generating arguments that support their initial attitude. This is in accordance with high self-esteem individuals engaging in anticipatory coping (Newby-Clark, 2004), and can also indicate goal shielding, that is, inhibiting other goals (such as performing well on a working memory task) in order to attain the focal goal of protecting one's attitude (see Shah, Friedman, & Kruglanski, 2002).

STUDY 2

METHOD

Participants. A total of 66 undergraduate psychology students (46 female, 20 male; $M_{\text{age}} = 22.77$, $SD = 8.02$) at the University of Amsterdam took part in this study in exchange for course credit or money (€ 4).

Materials and Procedure. Participants were seated behind a personal computer in separate cubicles. Up to 8 participants were tested in each session.

The first part of the experiment consisted of the pre-measure of working memory performance, based on Daneman and Carpenter (1980). Participants were presented with a total of 60 sentences in a fixed order. The goal was to memorize the last word of each sentence until cued to write them down. This had to be done in the exact order of presentation. The amount of words participants had to store in working memory went up from two to six words and each was tested three times. Thus, on the first three trials participants had to remember a sequence of two words. Next, participants memorized three words three times, et cetera. Participants' entries were saved.

The next study was introduced as a study on public opinion. The attitude-issue was nuclear energy. More specifically, we asked our participants to indicate if they thought their country should invest (more) in nuclear energy, for instance by building a new nuclear power plant. Participants expressed their attitude on two Visual Analogue Scales (1 = *Disagree*, 100 = *Agree*; 1 = *Negative*, 100 = *Positive*). The mean score on these two items represented the overall attitude ($r = .90$). In the present study we did not manipulate value-relevance, but we relied on a self-report measure (see also Wiersema, van der Pligt, & van Harreveld, 2010). Prior research confirmed the link between perceived value-relevance and the self-concept (Holland, 2003). In order to measure value-relevance, we used three items taken from Pomerantz, Chaiken, and Tordessilas (1995). An example is: "How central is your attitude toward investing in nuclear energy to your self-concept?" (1 = *not at all*, 100 = *very much*). An index of value-relevance was created out of the mean score on these three items ($\alpha = .79$).

Participants' self-esteem was measured with the Rosenberg Self-Esteem Scale (Rosenberg, 1965) that was administered as part of a mass-testing session participants attended approximately one month earlier. All scales were 9-point scales ranging from 1 (*does not describe me*) to 9 (*describes me*). Reliability was good ($\alpha = .82$). After participants expressed their attitude, they were told that they were about to read an article on nuclear energy that had supposedly appeared in a large national newspaper ("De Volkskrant") recently. The title of the article was included to give participants an idea about the valence of the article. The title was: "The nonsense of fear: How irrational fear for a second Chernobyl leads to severe shortages in our energy supply." When participants pressed the "OK" button to start reading the article, they were first presented with the post-measure of the working memory task. This task was identical to the pre-measure except for the content of the sentences and thus the words they had to memorize. The difference in performance between the pre- and post-measure is taken as a measure of preparation for the upcoming counter-attitudinal article or distraction seeking. After completing this task, participants were thanked and debriefed.

RESULTS

Descriptives and Outliers. Participants' performance on the working memory task was coded as follows. Every word that was retrieved on the position corresponding with the presentation order was rewarded with one point. For instance, if one of the sequences consisted of the words "dog," "garden," and "refrigerator" and the response was: "dog," "refrigerator," and "garden," only one point was allocat-

ed. A maximum of 60 points could thus be obtained. Separate sum-scores were created for the pre- and post-measure. Finally, we subtracted the pre-measure from the post-measure. A positive difference score implies better performance on the post-measure. A paired samples *t*-test indicated that the overall performance on the pre-measure ($M = 40.23$, $SD = 9.55$) was slightly better than that on the post-measure ($M = 38.80$, $SD = 9.31$), $t(65) = 2.04$, $p = .046$.

Participants had slightly negative attitudes toward nuclear energy ($M = 36.91$, $SD = 22.87$). Mean value-relevance was somewhat below the absolute mean of the scale, $M = 40.55$ ($SD = 22.52$). Self-esteem was negatively skewed ($M = 6.87$, $SD = 1.08$). There were no outliers.

Working Memory Capacity. In accordance with the recommendations of Aiken and West (1991) predictors were centered to make their means equal to zero. We then simultaneously regressed attitude, value-relevance, self-esteem, and their interaction terms onto the working memory difference score. Results yielded a three-way interaction, $t(65) = -2.45$, $p = .017$. To find out if working memory was affected primarily for participants for whom their attitude was high in value-relevance, separate regression analyses were performed for participants low (-1 *SD*) and high in value-relevance ($+1$ *SD*). In accordance with expectations, only for high value-relevance we obtained a significant two-way interaction of attitude and self-esteem, $t(65) = -3.48$, $p = .001$. Because we expected working memory capacity to be affected only when the article was counter-attitudinal—that is, for participants having negative attitudes—we performed separate regressions for the negative (-1 *SD*) and positive ($+1$ *SD*) attitude in case of high value-relevance. Only for the negative attitude, the simple slope for self-esteem was significant, $\beta = .82$, $t(65) = -3.09$, $p = .003$, $pr = .376$. Participants with high self-esteem performed worse on the post-measure than participants with low self-esteem (see Figure 3).

We also tested the simple slopes of attitude for low (-1 *SD*) and high ($+1$ *SD*) self-esteem separately in case of high value-relevance. These slopes were reliable for both low self-esteem, $\beta = .47$, $t(65) = 2.50$, $p = .015$, $pr = .31$, and high self-esteem, $\beta = -.57$, $t(65) = -2.49$, $p = .016$, $pr = -.31$. Participants with high self-esteem performed worse when their attitude did not match the valence of the article (i.e., negative attitude) than when it did. In our view, this impaired performance is due to high self-esteem participants preparing mentally for the task ahead, that is, reading a counter-attitudinal article, for instance by bolstering their attitude and by formulating counter-arguments to the expected contents of the counter-attitudinal article. Low self-esteem participants showed the opposite pattern; their performance got better when the to-be-read article was incongruent with their attitude. Thus, low self-esteem participants seem motivated to avoid thinking about the potentially threatening situation ahead and tend to focus more on the memory task.

GENERAL DISCUSSION

The present research shows that individuals use different strategies to deal with information that challenges their value-relevant attitudes as a function of self-esteem. Self-esteem affects the way people cope with threats to their self-concept and important values. Our results show that low self-esteem individuals tend to postpone and avoid reading a counter-attitudinal text (Study 1) and perform bet-

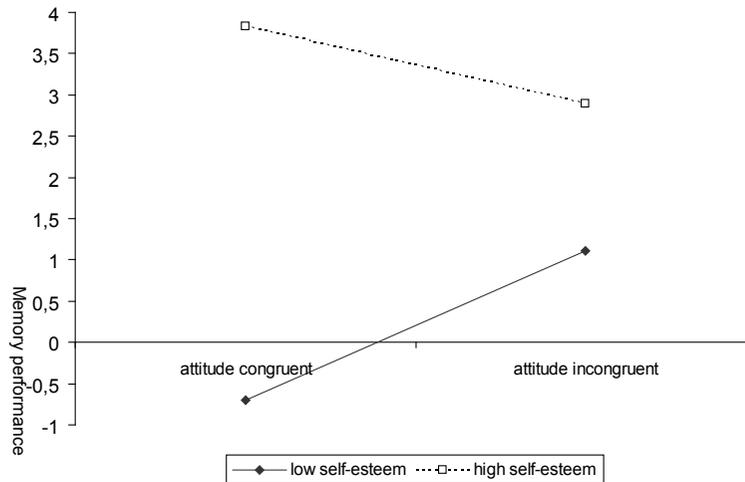


FIGURE 3. Performance on the memory task as a function of self-esteem and attitude in case of an attitude high in value-relevance.

ter on an unrelated, distracting task (Study 2) as compared to participants high in self-esteem. Participants higher in self-esteem did not avoid confrontation with counter-attitudinal content (Study 1). Moreover, their impaired performance on a distracting task administered directly after being warned that they would be confronted with a counter-attitudinal article suggests that they were already preparing for the upcoming confrontation with counter-attitudinal information (Study 2). The latter reflects anticipatory coping (Newby-Clark, 2004) or goal shielding (Shah, Friedman, & Kruglanski, 2002). Differences between low and high self-esteem individuals only emerged when attitudes were high in value-relevance. This not only supports the notion that individuals are motivated to protect attitudes that are important to their identity and value-system, but also indicates that self-esteem determines *how* these attitudes are protected.

One of the strategies our low self-esteem participants adopted when dealing with counter-attitudinal information was distraction as indicated by their enhanced performance on a distracting task. This is in accordance with earlier research that suggests that low self-esteem individuals tend to procrastinate or disengage from threatening and challenging conditions, while high self-esteem individuals react with increased effort and attention (e.g., Ferrari, 1994; Lane, Jones, & Stevens, 2002).

In our research, low self-esteem participants were aided by the distracting task and performed better on it than their high self-esteem counterparts (see also Brockner & Hulton, 1978). This implies that even though low self-esteem individuals may not be particularly capable in directing their attention away from a threat at their own account (e.g., Dodgson & Wood, 1998), they are highly motivated to do so and seize every opportunity that offers them an escape. One applied implication of the present research is that it might be particularly hard to make low self-esteem individuals pay attention to a persuasive (and challenging) message in a world that presents so many "easy ways out" such as opportunities for distraction. Giving low self-esteem individuals a boost to their self-esteem prior to confronta-

tion with counter-attitudinal information could be a viable strategy to enhance exposure to that type of information.

A potential avenue for future research is to see if, besides this attentional escape motive, low self-esteem individuals have additional motives to invest effort in distracting tasks. An example could be the chance to boost their self-esteem in a different, neutral domain.

All in all, the present research points out that low and high self-esteem individuals use different strategies in order to protect attitudes that are linked to their self-concept. Earlier research pointed at the role of personality and self-esteem in attitude processes (e.g., Hovland, Janis, & Kelley, 1953; Hovland, Lumsdaine, & Sheffield, 1949; McGuire, 1968a, 1968b). This research predominantly examined attitude *change* (for a review, see Rhodes & Wood, 1992). More recent research specified various means people employ to *protect* their attitude such as counter-arguing, source derogation and distraction, but did not clarify when (or by whom) each of these is being employed (e.g., Jacks & Cameron, 2003; Eagly, Kulesa, Brannon, Shaw, & Hutson-Cumeaux, 2000). We aimed to do that, and focused on the role of self-esteem.

More recent research also identified characteristics of the attitude itself (the "when") as determinants of the biased processing of attitude-relevant material (e.g., selective exposure to information: Brannon et al., 2007; Fischer, Jonas, Frey, & Kastenmuller, 2008; Fischer et al., 2008). In the present research, we focused on two very specific ways of defensive processing namely, distraction and anticipatory coping. These processing styles take place just before the encoding stage and at the encoding stage. We showed that self-esteem (the "who") affects the strategies employed in both stages and also showed that these differential strategies are only employed when the attitude is high in value-relevance (the "when").

Over the last decades our exposure to information has increased dramatically. As a consequence of this increase, our attitudes are likely to be continuously challenged and the present research provides insight into how different people protect their valued attitudes against these challenges in different ways. Not only do books, cars, and attitudes tell us something about others; how people cope with challenging information can also be quite informative.

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