Taking it personally: self-esteem and the protection of self-related attitudes
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Chapter 3

Shut your eyes and think of something else: Self-esteem and the use of distraction in dealing with counter-attitudinal content

Three studies investigated the hypothesis that people with low but not high self-esteem tend to avoid (the processing of) information that is incongruent with prior attitudes in which they have high levels of value-relevant involvement. In Study 3.1 participants were given the opportunity to postpone and avoid reading a counter-attitudinal article. Participants with low self-esteem did so to a higher degree than high self-esteem participants. In Study 3.2, low self-esteem participants performed better than high self-esteem participants on a distracting task immediately after they heard that they were going to read a counter-attitudinal article. In Study 3.3, participants watched an interview containing several arguments related to their attitude. The interview also contained distracting news headlines that were presented as scrolling text at the bottom of the screen. When the content of the interview was incongruent with participants’ attitudes, low self-esteem participants had better memory for the news headlines than their high self-esteem counterparts.

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7 This Chapter is based on Wiersema, D. V., Van der Pligt, J., & Van Harreveld, F. Shut your eyes and think of something else: Self-esteem and the use of distraction in dealing with counter-attitudinal content. [unpublished manuscript]
8 We would like to thank Chantal den Daas for help in collecting the data of Study 3.2.
The phrase “Tell me what you read, and I tell you who you are” illustrates the popular belief that the books we read, and more in general our possessions, reveal something about who we are. Research has indeed shown that the objects we possess and the way our homes are decorated and furnished tells something about our personality and that people are intuitively quite accurate at grasping other people’s personality on the basis of their possessions (Gosling, Ko, Mannarelli, & Morris, 2002). Thus, it seems that people can be identified by their possessions. Similarly, objects like our car, clothes, and designer couch can become part of our extended self-concept (Belk, 1988). We would like to argue that this idea not only applies to physical properties but also to immaterial domains such as beliefs, attitudes and preferences. Abelson (1986) was one of the first to characterize beliefs and attitudes as "possessions".

People value properties that are connected to their self-concept more than those not connected to their self-concept. This is evidenced for instance by the mere ownership effect and the effects associated with the “minimal group” paradigm. These effects show that objects or groups that are (experimentally) linked to the self are assigned a higher value by participants than objects and groups that are not linked to the self (e.g. Beggan, 1992; Gawronski, Bodenhausen, & Becker, 2006; Tajfel, Billig, Bundy, & Flament, 1971). Similarly, properties that are intrinsically tied to the self, like the letters in our name, are generally assigned a higher value than properties not connected to the self (Nuttin, 1985; 1987).

It is of no surprise then that people cherish and protect these self-symbols. The (potential) loss of, or damage to self-symbols is often interpreted as a threat to the self and is likely to instigate self-protective actions. For example, we protect our house and possessions by installing burglar alarms and we protect our favorite skirts, jackets et cetera from moths by keeping them in a plastic cover. This is not only true for the material properties we collect, but also applies to immaterial domains. For instance, De Dreu and Van Knippenberg (2005) proposed that arguments and beliefs can become part of our extended self-concept leading to defensive cognitions and behavior when these beliefs are challenged. Thus, defending an attitude can be paralleled with defending the
self. However, past research has indicated that people are not equally protective of all attitudes. People are especially protective about attitudes that are perceived as being identity-defining and part of the self-concept (Johnson & Eagly, 1989; Maio & Olson, 1995; Zuwerink & Devine, 1996). These personally important attitudes are referred to as attitudes serving a value-expressive function (Katz, 1960), or attitudes in which we have value-relevant involvement (Johnson & Eagly, 1989). In Chapter 2, we presented several examples of these attitudes such as organ donation, a number of environmental issues, abortion, child adoption by homosexual couples and the death penalty. In relation to these attitudes, people tend to be less open minded to new, incongruent information and are more motivated to maintain their attitude.

Not surprisingly, the same applies to the attitude most closely connected to our self-concept: our self-esteem. It is generally assumed that the protection and enhancement of self-esteem is a primary motive underlying human behavior (Allport, 1937; Brown & Dutton, 1995; Sedikides & Strube, 1997; Taylor & Brown, 1988; Tesser, 1988). This motive is especially potent when a threat is present (for review, see Campbell & Sedikides, 1999). Past research has indicated that there are multiple means to protect a threatened self-concept and self-esteem. An example is Tesser’s work on fluid compensation (Tesser, 2000, 1988). We argue that the same should hold for the ways in which value-relevant attitudes are being protected.

In the realm of attitudes, two global defensive strategies are being discerned: a passive-defensive and an active-defensive strategy (Eagly, Kulesa, Brannon, Shaw, & Hutson-Cumeaux, 2000). People employing the first strategy are primarily concerned with avoiding (the processing of) information that is incongruent with their attitude. People who adopt an active-defensive strategy on the other hand, aim to rebut the counter-attitudinal information. Both strategies are concerned with resisting persuasion, but do so in entirely different ways.

The two strategies outlined above seem to have a lot in common with a variety of other psychological constructs. Examples are the distinction between problem-focused versus emotion-focused coping (Folkman & Lazarus,
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1980) and the similar distinction between active versus avoidant coping (Holahan & Moos, 1987). Coping theory is concerned with how people deal with stressful and unpleasant situations. People who employ emotion-focused coping strategies are concerned primarily with getting a grip on their emotional and physical reactions as well as with avoiding the problem altogether. One way to accomplish this is by seeking (mental) distraction. The key is that people employing emotion-focused coping do not deal with the problem itself which is exactly what people using problem-focused coping intend to do. They attend to the problem at hand in order to solve it.

A similar distinction can be found in personality systems interactions (PSI) theory (Kuhl, 2000). According to this theory, affect-regulation can be divided into two broad categories: state- versus action-orientation. Individuals who are action-oriented will take goal-oriented actions when faced with worsened basic affect - the goal of course is to feel more positive - while state-oriented individuals dwell upon their negative affect (rumination) and show a lack of appropriate actions. Other psychological constructs that rely on such a distinction are, amongst others promotion versus prevention focus (Higgins, 1997), monitoring versus blunting (Miller, 1980), sensitization versus repression (Byrne, 1964; Gudjonsson, 1981; Houston & Hodges, 1970), and behavioral activation (BAS) versus behavioral inhibition (BIS) (Carver & White, 1994, Gray, 1981; 1982). In sum, all these distinctions correspond with the taxonomy of Eagly et al. (2000) who contrast a passive-defensive with an active-defensive strategy of dealing with counter-attitudinal information. Interestingly, there is only limited information about when and why people are more likely to adopt either one of these two strategies. We propose that people's self-esteem predicts which strategy is employed.

First, when choosing to face a difficult situation instead of ignoring that situation, a person needs to have confidence in the ability to solve the problem. These kinds of generalized self-efficacy beliefs are more common for high self-esteem individuals. Moreover, there is evidence suggesting that self-esteem and generalized self-efficacy are part of the same higher-order construct (Judge, Erez, Bono, & Thoresen, 2002). On a more specific level, high self-esteem
individuals tend to have more faith in their capability to defend their attitudes (defensive confidence). This confidence, in turn, translates into behavior: individuals with higher levels of defensive confidence expose themselves to counter-attitudinal information to a higher degree than those low on that trait (Albarracin & Mitchell, 2004). It is clear that these behaviors bear possible risks and could have negative effects. For instance, by exposing oneself to counter-attitudinal information, the persuasive appeal could result in unwanted attitude change (see Albarracin & Mitchell, 2004). Nonetheless, it is well documented that people with high self-esteem engage in risky behaviors more readily than people low in self-esteem (e.g. Lakey, Rose, Campbell, & Goodie, 2007; McElroy, Seta, & Waring, 2007; Wild, Flisher, Bhana, & Lombard 2004). However, it is not necessarily the case that high self-esteem individuals take these risks without taking precautions. When a threatening and unpleasant situation was forewarned, high but not low self-esteem people took preparations in order to cope successfully (anticipatory coping; Newby-Clark, 2004). For instance, high self-esteem individuals can prepare for an upcoming confrontation with a counter-attitudinal essay by generating arguments in advance that support their attitude. To summarize, the self-efficacy beliefs that accompany high self-esteem will lead high self-esteem individuals to actively approach threatening situations to a higher degree than low self-esteem individuals.

It seems intuitively appealing that the tendency that someone exhibits at an early stage is related to how a person behaves later on. In other words, if one tends to seek out information that goes against one’s attitude, it seems unlikely that one backs out when being confronted with the counter-attitudinal content. Thus, the behavior one exhibits at the exposure stage should be related to how the information one is being exposed to is being processed at subsequent stages of information processing (i.e. attention and memory). The literature provides some confirmatory evidence for this assumption. For instance, bias at exposure of information did predict bias at later stages of information processing (Smith, Fabrigar, Powell, & Estrada, 2007). Therefore, we may assume that the higher levels of defensive confidence (associated with high self-esteem) that lead to the selection of counter-attitudinal information (Albarracin
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& Mitchell, 2004), will also lead to less avoidant behavior when the threatening information is to be dealt with. Thus, threatening information will be attended to more, and remembered better by high self-esteem individuals. Indeed, the research described in Chapter 2 (this dissertation) showed that individuals with high self-esteem tended to have better memory for information that went against their attitude than low self-esteem individuals. This implies that high self-esteem individuals attended more to the counter-attitudinal content than their low self-esteem counterparts.

Interestingly, several correlational studies show that people with low self-esteem tend to rely on avoidant strategies such as mental disengagement while people with high self-esteem use more active, problem-focused coping strategies (Carver, Scheier, & Weintraub, 1989; Holahan & Moos, 1987; Mullis & Chapman, 2000; Smith, Wethington, & Zhan, 1996). Self-esteem is also positively correlated with dispositional tendencies toward behavioral activation (BAS), promotion focus and action orientation which are all associated with movement toward goals, rewards and dealing with difficult situations, while low self-esteem is related to behavioral inhibition (BIS) and rumination (Study 2, McGregor, Gailliot, Vasquez, & Nash, 2007) which are associated with anxiety and movement away from goals. Our own correlational data confirm that high self-esteem individuals are more action oriented than low self-esteem individuals (Wiersema, 2007). In the light of these findings, we expect high self-esteem individuals not only to actively approach potentially threatening, counter-attitudinal information to a higher degree than low self-esteem individuals, but also to process this information in an active-defensive manner while low self-esteem individuals will resort to more passive-defensive strategies.
Overview

We tested these ideas in three studies. In Study 3.1 participants were given a say in when (and if) they would read a counter-attitudinal essay in order to investigate their tendency to approach or avoid counter-attitudinal information. In Study 3.2 participants thought that they were going to read a counter-attitudinal essay but were presented with an unrelated task first. Performance on this task was taken as a measure of participants’ motivation to avoid thinking about the upcoming counter-attitudinal content. Finally, in Study 3.3 attitude-relevant information was presented simultaneously with information unrelated to the focal issue. Memory for the unrelated information was taken as a measure of the use of avoidant strategies for coping with the counter-attitudinal content.

Study 3.1

Method

Participants. A total of 105 undergraduate students (78 female, 27 male) from the Radboud University Nijmegen participated for money (€ 3). Their mean age was 20.03 (SD = 2.95). Participants were randomly assigned to condition.

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

The first part of the experiment was presented as a study on personality characteristics. Self-esteem was measured with the ten item Rosenberg Self-Esteem Scale (Rosenberg, 1965). Items were rated on 9-point scales ranging from 1 (does not describe me) to 9 (describes me). The self-esteem scale had good reliability (α = .87). When participants completed the personality study, a new study “Opinion Poll 2006” 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, they were asked to rank order
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four issues, including the target issue, in terms of how important they were for their personal identity. The goal was to manipulate the perceived value-relevance of the target issue. The procedure was the same as in Study 2.2 in Chapter 2. In the low value-relevance condition, the issue of Turkey and the EU was surrounded by three highly value-relevant topics: euthanasia, developmental aid and sustainable energy. We expected the perceived value-relevance of the target issue to go down. In the high value-relevance condition, the surrounding issues were presumed low in value-relevance (the issues concerned street lamps, a silly television game show and font sizes on labels on consumer goods). We expected that the relative insignificance of these issues with reference to the target issue would heighten its perceived value-relevance.

Next, participants’ attitude was measured with one dichotomous item (pro – con). Based on their score on the dichotomous attitude measure, participants who were against Turkey’s entry in the EU were thanked for their participation and debriefed.

Participants who were in favor of Turkey’s entry in the EU (62.9 %) took part in the following experiment. They 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 Dutch newspaper (“De Volkskrant”) recently. The title of the article was provided in order for participants to find out if the nature of the content would be 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”. However, the article never followed. Rather, participants were informed that they were to take part in an experiment aimed to make psychological experiments more agreeable by giving them control over the sequence of the experiments. Therefore, they were allowed to have a voice in the order of the experiments planned in the current experimental session. The titles of four studies were given, one of which was the study participants were just participating in: “Opinion Poll 2006–continued”. The other titles were unknown and neutral to participants (“UOPL-III”, “Navon Task”, and “Herrek Inventory – Dutch”). Participants were asked to rank order the four experiments in terms of which one they wanted to perform first, second, and so on. They were also
informed that although they were supposed to complete all four of the studies, experience learned that there was not enough time to complete all four. This implies that, if participants were unwilling to read the article concerning Turkey's entry in the EU, they could accomplish this by assigning a higher rank-number to it. After rank ordering the four studies, participants were thanked and debriefed.

Results and Discussion

Descriptives and outliers. On the dichotomous attitude measure 62.9 % of participants (n = 66) expressed a positive attitude toward Turkey's entry in the EU. A Chi Square Test confirmed that no differences emerged in participants' attitudes as a function of condition. The definitive sample thus consisted of 66 participants (74.2 % female, $M_{age} = 20.14$, $SD = 2.98$). The distribution of participants between the two conditions was satisfactory with 53% of participants (n = 35) in the low value-relevance condition. The distribution of participants' self-esteem scores was negatively skewed ($M = 6.46$, $SD = .92$). The mean rank number assigned to the target experiment was 2.32 ($SD = 1.28$) and participants used the total range (1 to 4). There were no outliers.

Task avoidance. We expected participants with low self-esteem to assign a lower position (i.e. a higher rank number) to the target experiment “Opinion Poll 2006” than participants with higher self-esteem as a means to 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 two-way interaction of condition and self-esteem.

First, we centered the independent variables (Aiken & West, 1991). Subsequently, condition and self-esteem and their interaction term were entered in the regression simultaneously. The interaction was reliable, $t(65) = -2.373$, $p = .021$. In order to perform separate regressions in each of the two conditions, condition was dummy-coded. As expected the simple slope of self-esteem was only significant in the high value-relevance condition (low value-relevance, $t < 1$), $\beta = -.396$, $t(65) = -2.50$, $p = .015$, $pr = -.303$. Participants with
low self-esteem assigned a higher rank number to the target than their high self-esteem counterparts. This suggests that participants low in self-esteem tried to avoid future confrontation with the counter-attitudinal information.

*Figure 3.1. Mean rank-number assigned to the experiment containing the counter-attitudinal content as a function of condition (low or high value-relevance) and self-esteem.*

As can be seen in Figure 3.1, only low self-esteem participants seem to differ between conditions in their behavioral tendencies to avoid counter-attitudinal content. The tests of the simple slopes for low and high self-esteem confirms this: the main effect of condition was only reliable for low self-esteem participants, $\beta = .49$, $t(65) = 2.88$, $p = .005$, $pr = .344$.

The results of this experiment suggest that low self-esteem participants are motivated to postpone or even avoid confrontation with counter-attitudinal information to a higher degree than high self-esteem participants. This finding is in accordance with the literature on self-esteem showing that people rely on behavioral tendencies that can be roughly classified...
as tendencies to approach or avoid situations that pose a threat to the self. More specifically, these results are in line with the findings of Albarracin and Mitchell (2004) who showed that participants with high defensive confidence (i.e. high self-esteem) tended to select more counter-attitudinal information than participants low in defensive confidence (i.e. low self-esteem) who tended to prefer pro-attitudinal information. However, the Albarracin and Mitchell experiment dealt explicitly with information selection since participants were instructed to select pro- and/or counter-attitudinal information. In our research, participants’ awareness of them selecting (or not) counter-attitudinal information was less evident because they chose between different experiments. Moreover, the choice alternatives (i.e., remaining experiments that participants could choose from) were neutral to participants while this is not the case when choosing between pro- and counter-attitudinal information.

Participants with low self-esteem seem motivated to avoid exposure to counter-attitudinal content. They did so by choosing to engage in other experiments first. By postponing exposure to the counter-attitudinal content by preferring to engage in other experiments, they could avoid thinking about the upcoming counter-attitudinal contents. If this is true, 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 3.2 we investigate if the desire to distract attention away from counter-attitudinal content results in better performance on an unrelated task. In this study, participants engage in a working memory task directly after being informed about an upcoming counter-attitudinal article they have to read. If participants want to avoid thinking about the upcoming counter-attitudinal article, they can do so by allocating attention to the working memory task. We expect this to be especially 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 that high self-esteem participants are already preparing for the upcoming confrontation with the
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counter-attitudinal article, for instance by generating arguments that support their initial attitude.

Study 3.2

Method

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

Materials and Procedure. Participants were seated in separate cubicles. Up to eight participants were tested in each session. Participants completed the tasks independently on a personal computer.

The first part of the experiment consisted of the pre-measure of working memory performance. 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 every amount was tested three times. Thus, first participants had to remember two words three times. Then participants memorized three words three times et cetera. Participants remembered a total of 60 words. 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 Dutch 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 7-point scales (1 = disagree, 7 = agree; 1 = negative, 7 = positive). The mean score on these two items represented the overall attitude ($r = .90$). Value-relevance was measured with three items taken from Pomerantz, Chaiken and Tordessilas (1995). These items assess both value-relevance and the perceived link with the self. An example of the latter is: “How central is your attitude toward investing in nuclear energy to your self-concept?” (1 = not at all, 7 = very much). An example of an item measuring the
link with values is: “My attitude toward investing in nuclear energy reflects values that are important to me” (1 = disagree, 7 = agree). An index of value-relevance was created out of the mean score on these three items (α = .79).

Participants’ global self-esteem was measured with the Rosenberg Self-Esteem Scale (1965) that was administered as part of a mass-testing session participants attended to approximately one month earlier. All scales were 7-point scales ranging from 1 (does not describe me) to 7 (describes me). Reliability was good (α = .82).

After participants expressed their attitude, they were told that they were about to read an article on nuclear energy that had allegedly appeared in a Dutch 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 an irrational fear for a second Tsjernobyl leads to severe shortage of our national energy supply”. When participants pressed the “ok” button to start reading the article, the post-measure of the working memory task was presented to them. 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 distraction seeking. After completing this task, participants were thanked and debriefed.

Results and Discussion

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 a participants’ response was: “dog”, “refrigerator” and “garden”, only one point was given. A maximum of sixty points could thus be obtained. Separate sum-scores were created for the pre- and post-measure. Finally, subtracting the post-measure from the pre-measure created a difference score. A negative difference score implies better
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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 somewhat 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 investing in nuclear energy ($M = 36.91$, $SD = 22.87$). Mean value-relevance was 40.55 ($SD = 22.52$). Self-esteem was negatively skewed ($M = 6.87$, $SD = 1.08$). There were no outliers on any of the independent or dependent variables.

Working memory capacity. In accordance with the recommendations of Aiken and West (1991) predictors were centered to make their means equal to zero. There were no effects on either the pre- or the post-measure separately. 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 the attitude was high in value-relevance, separate regression analyses were performed for participants low (- 1 SD) and high in value-relevance (+ 1 SD). Only at high value-relevance a significant two-way interaction of attitude and self-esteem was obtained, $t(65) = -3.48$, $p = .001$. 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. 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 (positive difference score) than participants with low self-esteem (see Figure 3.2).
Figure 3.2. Performance on the memory task as a function of self-esteem and attitude.

Note. The performance scores are difference scores obtained by subtracting performance on the post-measure from the pre-measure. Thus, positive scores indicate a worse performance on the post-measure relative to the pre-measure.

We also tested the simple slopes of attitude for low (-1 SD) and high (+1 SD) self-esteem separately. These slopes were reliable for both low self-esteem ($\beta = -0.47$, $t(65) = -2.50$, $p = 0.015$, $pr = 0.31$) and high self-esteem ($\beta = 0.57$, $t(65) = 2.49$, $p = 0.016$, $pr = -0.31$). Participants with high self-esteem performed worse when their attitude did not match the valence of the article (negative) than when it did. This impaired performance could be due to high self-esteem participants preparing mentally for the task ahead, i.e. reading a counter-attitudinal article, for instance by bolstering their attitude and byformulating counter-arguments to the expected contents of the counter-attitudinal article. Low self-esteem participants showed the opposite pattern; their performance got somewhat better when the to-be-read article was incongruent with their attitude (negative). We suggest that this is the case because low self-esteem participants were motivated to avoid thinking about the potentially threatening situation ahead and made use of the memory task in order to do so. In our next
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... study, we further explore this possibility by providing distracting information simultaneously with the attitude-relevant information. Participants watch an interview containing several attitude-relevant statements. During the interview, scrolling news items appear at the bottom of the screen. Memory for the contents of these items is taken as a measure of distraction seeking.

Study 3.3

Method

Participants. A total of 81 undergraduate psychology students from the University of Amsterdam participated for course credit or money (€ 4). Due to a programming error the data of nine participants were not saved. The remaining sample thus consisted of 72 participants (27 men, 45 women). Their mean age was 22.54 (SD = 5.74).

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

First, explicit self-esteem was measured with the ten items of the Rosenberg Self-Esteem Scale (Rosenberg, 1965; α = .87). Then, a study on students’ opinions was introduced. Participants gave their opinion on four different issues. The first three issues had to do with legislation concerning persons seeking political asylum in the Netherlands, higher taxes for fatty foods, and higher public transport rates in rush hours. The fourth issue was the target issue of this experiment: abolishing the possibility of having a dual nationality. The order was fixed with the target issue of the dual nationality always last. At the time of the study, this issue was discussed in the media extensively. The discussion centered on two Dutch politicians who had a second nationality, besides the Dutch. For instance, one of these politicians has a Dutch as well as a Moroccan nationality. Opponents of the dual nationality were mainly worried about the possible negative effects of being loyal to two countries at the same time and suggested abolishing the possibility of having two nationalities.
Participants’ global attitude was assessed with three items on Visual Analogue Scales \((1 = \text{totally disagree}, \ 100 = \text{totally agree}; \ 1 = \text{completely negative}, \ 100 = \text{completely positive}; \ 1 = \text{completely bad}, \ 100 = \text{completely good})\). The mean score of these items constituted an index of overall attitude \((\alpha = .98)\). Next, value-relevance was assessed with the three items based on Pomerantz, Chaiken and Tordessilas (1995, for a description, see Study 3.2 this dissertation), again on Visual Analogue Scales. The mean score of these items constituted an index of value-relevance \((\alpha = .87)\).

The final part was introduced as a study on the effects of different media-formats. Participants were told that there are many different ways to convey information nowadays, for instance via free newspapers in public transport, the internet and television. Participants were told that they were about to see a television-interview and that there would be some questions afterwards. The experimenter started the video and made sure participants wore their headphones.

In the video (duration 8:07 minutes) an alleged historian was interviewed about the issue of dual nationality. He strongly advocated the abolishment of the right to have a dual nationality and supported his views with several arguments. During the complete interview news headlines appeared as scrolling text at the bottom of the screen (see Betsch, Kaufmann, Lindow, Plessner, & Hoffmann, 2006), as is seen in daily news shows such as Newsnight. These headlines concerned issues unrelated to the contents of the interview, such as financial and political news, weather forecasts, traffic information and other news (e.g. “Dutch film wins prestigious prize in Berlin”). There were fifteen of these headlines and each of them was shown three times. The idea is that, when the information contained in the interview is incongruent with participants’ attitudes, one possible way to shift attention away from the interview is by focusing on the scrolling text. As a result of this, memory for the content of the scrolling text should improve.

After watching the interview, participants were presented with a surprise recall test. First, memory for the content of the interview was assessed with fifteen multiple-choice questions. Participants had to choose the correct
answer from three choice-alternatives. The fifteen questions were presented in a fixed order since the wording of some of the questions gave away the answer for other questions. An example of an item is: “What country does not permit giving up its nationality? A. Turkey, B. Morocco, C. the Netherlands”. Second, memory for the news headlines was assessed with fifteen multiple-choice items: one item for each news headline. Again, participants had to choose the correct answer from three possible options. An example of an item is: “In which of these cities did a Dutch film win a prize? A. Rome, B. Cannes, C. Berlin”. These questions were presented in random order. Finally, participants were thanked and debriefed.

Results and Discussion

Descriptives and outliers. In general, participants had a slightly negative attitude toward the issue of dual nationality (\(M = 30.80, SD = 26.21\)). The mean score on the value-relevance index was positioned mid-scale (\(M = 54.18, SD = 23.97\)). The distribution of self-esteem scores was skewed (\(M = 7.0, SD = 1.14\)). One participant was excluded because of an outlying self-esteem score (\(z\) value < -3, Stevens, 1996). The definite sample thus consisted of 71 participants.

Each correct answer on the memory measure was assigned a value of one. Two sum-scores were created, one representing memory performance for the interview and one for the scrolling news headlines. The scores of each index could vary between zero and 15. Performance for the interview (\(M = 9.56, SD = 1.87,\) range 5 - 13) was somewhat better than performance for the news headlines (\(M = 8.34, SD = 2.68,\) range 3 - 14), \(t(70) = -2.95, p = .004\).

Memory performance. In accordance with the recommendations of Aiken and West (1991) predictors were centered to make their means equal to zero. We first checked for the effects on memory performance for the interview. No significant effects emerged. We then checked for effects on memory performance for the news headlines. Results yielded a significant three-way interaction of attitude, value-relevance and self-esteem, \(t(70) = 2.11, p = .039\). To
investigate the nature of this interaction, we performed separate regressions at low (-1 SD) and high (+1 SD) value-relevance. We expected to find a significant two-way interaction of attitude and self-esteem only in case of high value-relevance. Results confirmed this expectation, $t(70) = 2.16, p = .034$. Thus, memory for the news headlines was affected by participants’ attitude and self-esteem, but only when participants perceived their attitude as highly value-relevant. We further expected low self-esteem participants to display enhanced memory for the news headlines when the valence of the interview was incongruent with their attitude. This would imply a negative attitude since the historian in the interview was in favor of the possibility to have a dual nationality. For high self-esteem participants we expected to find the opposite pattern. Therefore, we tested the simple slopes for low (-1 SD) and high self-esteem (+1 SD) participants separately. For high self-esteem participants, a marginally significant main effect of attitude was found, $\beta = .48, t(70) = 1.97, p = .054, pr = .241$. This main effect illustrates the tendency for high self-esteem participants to have enhanced memory for the news headlines when the content of the interview matched their attitude. In other words, when the interview was counter-attitudinal they did not attend to (and recalled) the news headlines (see Figure 3.3). The simple slope for low self-esteem participants failed to reach significance, $t < 1, p = .25, pr = .14$.

As can be seen in Figure 3.3 (next page), low self-esteem participants do tend to perform somewhat better when the interview was counter-attitudinal (negative attitude). And under these circumstances their performance is better than that of high self-esteem participants. However, the only slope being reliable is that of attitude for high self-esteem participants. Nonetheless, the overall pattern of the interaction supports the idea of low self-esteem participants using distraction as a means to cope with counter-attitudinal information more so than their high self-esteem counterparts.
Taking it personally

*Figure 3.3. Memory performance for news headlines as a function of self-esteem and attitude.*

We did not find any effects on participants' memory for the contents of the interview itself. This performance measure also did not correlate significantly with memory performance for the news headlines, although the correlation was in the expected, negative direction ($r = -.16$, $p = .20$, $N = 71$). These null findings for the interview could be due to the fact that one had to focus visual attention to the news headlines in order to learn its content, while this was not necessary for the interview. The contents of the interview were transferred via an auditory channel. Furthermore, the performance measure for the news headlines was presented after performance for the interview was assessed which followed directly after watching the interview. Indeed, performance on the interview was superior to that for the news headlines. A last possibility is that the performance measure for the interview was not sensitive enough to pick up differences between participants. The lower standard deviation of this measure, relative to that for the news headlines could provide some support for this idea.
General discussion

People differ in the way they cope with situations that are threatening and potentially stressful. These differences have often been subsumed in dichotomies such as action versus state orientation or problem-focused versus emotion-focused coping. The general tenet of these dichotomies is that they distinguish between behavioral tendencies that aim at dealing with the stressful situation at hand versus coping with that situation by avoiding it, for instance by seeking distraction.

We applied the idea of two coping strategies to the domain of attitudes and, more specifically, to the domain of attitude-protection and investigated the role of self-esteem. We were able to show that, in case of high value-relevance, participants with low self-esteem were more likely to avoid reading a counter-attitudinal text (Study 3.1), performed better on an unrelated, distracting task (Study 3.2) and had better memory for information unrelated to the attitude-issue if the simultaneously presented attitude-relevant information was incongruent with prior attitudes (Study 3.3) as compared with participants high in self-esteem. These results suggest that individuals with low-esteem tend to avoid confrontation with and thinking about potentially threatening, counter-attitudinal content, as we expected they would. Those higher in self-esteem did not shun confrontation with counter-attitudinal content (Study 3.1) and seemed to have ignored the unrelated information that was presented simultaneously with the attitude-relevant information, perhaps because they were busy scrutinizing the attitude-relevant information itself (Study 3.3). Moreover, their impaired performance on a task administered directly after announcing a counter-attitudinal text suggests that they were already preparing for the upcoming confrontation with the counter-attitudinal text (Study 3.2). The essence of this preparation presumably consisted of (a combination of) bolstering their current attitude and counter-arguing expected persuasive arguments. This preparation of high self-esteem participants is in line with the findings of Newby-Clark (2004) who showed that people high self-esteem take preparations in order to cope successful with an upcoming, threatening task.
Taking it personally

It must be noted that we did not directly show that high self-esteem participants were engaged in counter-arguing and attitude bolstering at the time that they engaged in the unrelated task. We infer this on the basis of their impaired performance on the unrelated task. One alternative explanation could be that high self-esteem participants became worse performers because the upcoming counter-attitudinal text annoyed and irritated them and therefore made them less motivated to perform well. Likewise, in Study 3.3 memory for the distracting news headlines did not co-vary with memory for the counter-attitudinal information. Thus, we cannot state that the impaired memory performance of high self-esteem participants for news headlines was due to their heightened attention to the counter-attitudinal information. Likewise, we cannot prove that the enhanced memory of low self-esteem participants for news headlines is caused by their avoidance of the counter-attitudinal information transferred by the interviewee. Therefore, future research should assess if counter-arguing and attitude bolstering actually takes place, for instance by administering a thought-listing task afterwards.

The divergent behavioral patterns of low and high self-esteem individuals were visible only when the attitudes were high in value-relevance. This supports the notion that individuals are especially protective of attitudes that are important to their identity and value-system. The present research has shown that these protective behaviors are activated as soon as only a very limited amount of counter-attitudinal information is provided, such as the title of a newspaper-article. If the goal of these behaviors is the protection of the attitude, they should result in resistance to persuasion to a higher degree than when that same attitude is perceived low in value-relevance. Indeed, attitudes high in value-relevant involvement have been shown to be more resistant to persuasion than those low in this type of involvement (Johnson & Eagly, 1989). However, it would be interesting to find out if the two defensive strategies are equally successful in accomplishing resistance to persuasion. This question is addressed in Chapter 4.