Persuasion through facts and feelings: integrating affect and cognition into behavioral decision models and health messages
Keer, M.

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Chapter five

The influence of affective and cognitive arguments on message judgment and attitude change: The moderating effects of meta-bases and structural bases

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The influence of affective and cognitive arguments on message judgment and attitude change: The moderating effects of meta-bases and structural bases.
Abstract
This study investigated whether the efficacy of affective versus cognitive persuasive messages was moderated by 1) individuals’ subjective assessments of whether their attitudes were based on affect or cognition (i.e., meta-bases), and 2) the degree individuals’ attitudes were correlated with affect and cognition (i.e., structural bases). Subjects were randomly exposed to a message containing either affective or cognitive arguments in favor of limiting alcohol intake. The results demonstrated that meta-bases and not structural bases moderated the influence of argument type on message judgment. Affective (cognitive) messages were judged more positively when individuals’ meta-bases were more affective (cognitive). In contrast, structural bases and not meta-bases moderated the influence of argument type on attitude and intention change following exposure to the message. Surprisingly, change was greater among individuals who read a message that mismatched their structural attitude base. Affective messages were more effective as attitudes were more cognition-based, and vice versa. Thus, although individuals prefer messages that match their meta-base, attitude and intention change is best established by mismatching their structural base.

Maximizing the persuasive power of communication efforts is a goal pursued by social psychologists, communication professionals, and lay people alike. It is no surprise that much research has been devoted to specifying what persuasive messages work best for which individuals. One way of optimizing the effectiveness of persuasive messages is by tailoring them to individual characteristics. Studies suggest that, compared to non-tailored messages, tailored messages are better
remembered, read, and perceived as relevant, and that they are more effective in influencing health behaviors (for an overview, see Skinner, Campbell, Rimer, Curry, & Prochaska, 1999). Messages can be tailored based on individuals' self-descriptions. For example, those who consider themselves to be very rational may be especially attentive to information high in factual content, whereas those who consider themselves to be very emotional may prefer information that makes them feel a certain way (e.g., Mayer & Tormala, 2010). However, as people have no direct access to their psychological processes, their self-descriptions are not always in line with their actual characteristics. For instance, someone who considers him or herself to be very rational, may in fact base most behavioral decisions on his or her feelings. Very little research has dealt with the difference between tailoring messages to self-descriptions versus objective measures of a personal trait. The present study responds to this gap in the literature by tailoring messages to individuals' attitude bases (affective versus cognitive) measured both objectively and subjectively.

**Affective and cognitive attitude bases**

Attitude theory considers affect and cognition to be the building blocks of attitude (Breckler & Wiggins, 1989). We use the term *affect* to refer to one's feelings associated with an attitude object, for example the degree to which it is regarded as pleasurable and enjoyable. In contrast, *cognition* indicates a more rational assessment of an attitude object, encompassing for example whether the attitude object is useful or useless, valuable or worthless. Supporting the view of affect and cognition as the building blocks of attitude, studies have found both influence it (Breckler & Wiggins, 1989; Crites, Fabrigar, & Petty, 1994; Trafimow & Sheeran, 1998). Research has also found that individuals differ in the extent they tend to base their attitudes on affect and cognition. Huskinson and Haddock (2004) correlated respondents' affect
and cognition towards a variety of attitude objects with their attitudes toward them. The results revealed considerable individual differences; some had attitudes that were based primarily on either affect or cognition, whereas others’ attitudes were based on both equally. As a consequence, although two individuals may appear to hold the same attitude, they may respond differently to affective and cognitive means of persuasion.

A number of studies have compared the effects of persuasive messages that either matched or mismatched individuals’ attitude bases. Most of these studies have found evidence for a matching effect; that is, affective appeals were more successful when attitudes were affect-based, whereas cognitive appeals were more successful when attitudes were cognition-based (e.g., Edwards, 1990; Fabrigar & Petty, 1999; Mayer & Tormala, 2010). However, mismatching effects have also been reported (Millar & Millar, 1990; Millar & Millar, 1993b; Quintiliani & Carbone, 2005). A possible explanation for these discrepant findings is that these studies have used different ways of operationalizing attitude base. For example, some have used relatively objective measures, such as scales that measure respondents’ need for cognition and need for affect (e.g., Wheeler, Petty, & Bizer, 2005), whereas others matched and mismatched appeals based on more subjective measures. For example, Quintiliani and Carbone (2005) simply asked individuals whether they had a preference for affective or cognitive information. Apart from one study (See, Petty, & Fabrigar, 2008), the effects of matching (and mismatching) based on different measures of attitude base have never been compared.

When it comes to conceptualizing and measuring attitude bases, it is important to distinguish between individuals’ self-assessments of their attitude bases (“meta-bases”) and attitude bases as measured in an objective manner (“structural attitude bases”). Meta-bases can be
measured by asking individuals to what extent their attitudes toward a number of attitude objects are driven by their emotions and beliefs. Individuals who on average score higher on the emotion items are seen as having an affective meta-base, and those who score higher on the belief items are seen as having a cognitive meta-base (See et al., 2008). Structural attitude bases are measured by 1) having individuals report their affective and cognitive evaluations of and attitudes toward a number of attitude objects, and 2) correlating the affect and cognition measures with attitudes across the attitude objects. Individuals whose attitudes are most strongly related to their affect are then identified as having largely affect-based attitudes, and those whose attitudes are most strongly correlated with their cognitive evaluations are identified as having cognition-based attitudes. In a study by See et al. (2008), structural and meta-bases did not significantly correlate with each other, indicating they were independent measures.

In an article on the distinction between structural and meta-measures of attitudinal properties, Bassili (1996) argued in favor of the former. He contended that as individuals have no direct access to their psychological processes, meta-attitudinal measures rely on individuals’ personal memories and analyses of their behavior, undermining their validity. In contrast, structural measures of attitudinal properties are relatively objective and stem from the same mechanisms that are responsible for judgment and decision making. In line with this reasoning, Bassili (1996) found that structural measures of attitude strength were much more predictive of attitude pliability and stability than meta-attitudinal measures.

Conversely, See et al. (See et al., 2008) found that meta-bases, but not structural bases, predicted information interest. These authors assessed both structural and meta-bases of individuals’ attitudes, and then exposed the participants to either an affective or cognitive
message. Only meta-bases predicted selective information interest, such that individuals with an affective meta-base spent more time reading the affective message relative to the cognitive one. In a second experiment, the authors assessed attitude change as a function of message type and structural or meta-base. Both structural and meta-bases significantly interacted with message type to influence attitude change. In both cases a matching effect was found; individuals whose attitudes were affect-based exhibited more attitude change after exposure to the affective message, whereas for cognition-based individuals, the cognitive message was more persuasive. The authors explained the importance of meta-bases by arguing that they may influence the motivation to process information. Information matching an individual’s meta-base may seem more personally relevant than information mismatching it, and therefore motivate individuals to process it better, an argument in line with the finding that individuals spent more time reading information that matched their meta-base. Structural bases did not influence time spent reading the message, and so it is likely they influence attitude change through another mechanism. As structural bases reflect individuals’ associations between affect, cognition, and attitude, they may influence attitude change through individuals’ ability to quickly comprehend and process information that is matched to their structural bases (See et al., 2008). For example, if someone has an affective structural attitude base, that person’s attitudes are more strongly related with his or her affective evaluations of attitude objects than with his or her cognitive evaluations. Because of the strong link between affective evaluations and attitude, affective information may have a stronger impact on attitude change than rational information.

**The present study**

The goal of the present study was to assess in one design the efficacy of persuasive messages tailored to either individuals’ structural
or meta-bases. Efficacy was measured using three dependent variables: message judgment, attitude change, and intention change. Our expectations with regard to the influence of structural and meta-base on message judgment were different from those with regard to their influence on attitude and intention change. We expected messages matching individuals’ meta-bases to be judged more positively than messages mismatching them. As argued by See et al. (2008), individuals may be motivated to search for and process information that matches their meta-base as it may seem personally relevant to them. Following the same reasoning, individuals may judge messages that match their meta-bases more positively than those that mismatch them. In contrast, we expected no effect of matching versus mismatching structural bases on message judgment. Structural bases reflect psychological processes underlying decision making that people cannot directly observe, as is apparent from the finding that they are unrelated to meta-bases (Bassili, 1996; See et al., 2008). As such, it seems unlikely that people should prefer information that matches their structural bases.

Structural bases reflect the associations between affect, cognition, and attitude. The degree to which a persuasive appeal matches versus mismatches individuals’ structural bases is therefore likely to influence attitude change. Indeed, previous studies found messages matching individuals’ structural bases to be more persuasive than those mismatching them (Huskinson & Haddock, 2004; See et al., 2008). In the present study, we also included intention change as dependent variable as a test of the robustness of the possible effects of matching versus mismatching structural and meta-bases. In summary, we expected only meta-bases to interact with message type to influence message judgment, but both structural and meta-bases to interact with message type to influence attitude and intention change.
Method

Participants and procedure
This study utilized an e-mail-based pre-test-post-test design. The pre-test was completed by 138 students at the [institution removed for blind review], 97 (70%) of which also completed the post-measurement. Participation was encouraged by giving participants a chance to win a cash prize. The sample had an average age of 22.8 years (SD = 4.5) and 75.3% were female.

In the pre-measurement, participants indicated their affect, cognition, attitude, intention, and meta-base toward each of five health behaviors, including refraining from binge drinking. By collapsing across these behaviors, a measure of structural and meta-bases as a general tendency could be calculated. The behaviors were selected based on their expected variance in and relevance to the target population. The order of the behaviors was randomized for each respondent. One month after the pre-measurement, respondents were randomly exposed to a message containing either affective or cognitive arguments against binge drinking. Immediately after reading the message, respondents were asked to judge the message, and to complete the post-measurement of attitude and intention.

Intervention
Both the affective and cognitive messages were fictional press releases by a fictional information institute. The messages were identical in structure and length, and presented the results of a large-scale study on the effects of binge drinking among students. Both messages contained three arguments against binge drinking. The arguments were derived from an elicitation study among 22 members of the target population. These students listed both positive and negative feelings (affect) and consequences (cognition) associated with refraining from
binge drinking. The three most frequently mentioned answers were used in the messages, regardless of whether they were positive or negative aspects. Negative aspects were incorporated in the message by stating they were false (e.g., “refraining from binge drinking does not cause boredom”). This method resulted in the affective message refuting three negative beliefs, whereas the cognitive message endorsed two positive beliefs and refuted one negative belief. Despite the potential confounding influence of this difference, we decided not to change our strategy, as we believed addressing the most commonly held beliefs was most important.

The affective message stated that the presupposition that refraining from binge drinking causes negative feelings was false, and included three paragraphs each presenting an affective argument in the form of a research finding supporting this statement. Specifically, the message stated that individuals who refrain from binge drinking do not feel tense, empty, or bored more often than those who do not. These research findings were summarized in the final paragraph. The cognitive message was structured the same way, but the message stated that individuals who refrain from binge drinking experience advantages for not doing so, and this was supported by saying that individuals who refrain from binge drinking have more control over their behavior, are able to think more clearly, and by falsifying the assumption that binge drinking helps in meeting people. The messages were tailored to gender, in the sense that binge drinking was defined as drinking more than three glasses of alcohol a day for women, versus more than five for men.

Measures

Structural attitude base. The calculation of structural attitude base involved three steps. First, individuals’ affect, cognition, and attitude were measured for each of five health behaviors. These behaviors were: “to limit your alcohol intake to [3 for women; 5 for men]
glasses a day, during the coming month,” “to limit your alcohol intake to [14 for women; 21 for men] glasses a week, during the coming month,” “to use toothpicks or dental floss every day, during the coming month,” “to take breaks from computer work, at least every two hours, during the coming month,” and “to have dental check-ups at least twice a year, during the coming year.” Second, we calculated the correlations between affect and attitude, and cognition and attitude across the five behaviors for each respondent. In the last step, we subtracted the standardized absolute values of the cognition-attitude correlation from the standardized absolute values of the affect-attitude correlation. Thus, more positive (versus negative) scores indicated attitudes across the five behaviors were based more on affect (versus cognition). This procedure was successfully employed in previous research (Huskinson & Haddock, 2004; See et al., 2008).

Participants indicated their affect, cognition, and attitude toward each of the five behaviors by responding to the stem: “For me to perform the behavior would be …” followed by nine seven-point semantic differential items in randomized order. Each construct was measured using three word pairs, adapted from Crites, Fabrigar, and Petty (1994), and Trafimow and Sheeran (1998). Examples are unpleasant/pleasant for affect; useless/useful for cognition; and bad/good for attitude. The internal reliability for each of the three constructs was good: mean α values were .93 for affect, .91 for cognition, and .89 for attitude (Cronbach’s α for the attitude post-measure was .88), and so a single scale was computed for each measure.

**Meta-base.** Like structural base, meta-base was measured across the five health behaviors, in line with See et al. (2008). For each behavior, respondents answered two questions: 1) “To what extent is your attitude toward the behavior determined by your feelings (not your beliefs)?” and 2) “To what extent is your attitude toward the behavior...
determined by your beliefs (not your feelings)?” (See et al., 2008). Then, an average score across the five behaviors was calculated separately for the feelings and beliefs questions. Finally, an index for participants’ meta-bases was calculated by subtracting standardized values of participants’ responses to the beliefs questions from standardized values of their responses to the feelings questions. Thus, positive scores indicated affective meta-bases, and negative scores indicated cognitive meta-bases.

**Intention.** Intention to refrain from binge drinking was assessed in the pre- and post measurements. Three seven-point items were used, each ranging from “absolutely will not” to “absolutely will”: “I will try to…,” “I intend to…,” and “I will perform the above behavior.” Cronbach’s $\alpha$s were .95 and .94 for the pre- and post-measurements respectively. For both measurement times, responses on the three items were averaged to form a single scale.

**Message judgment.** This was measured using Burke and Edell’s (1989) evaluation judgment scale. Respondents rated on seven-point agreement scales to what extent each of 11 adjectives characterized the message (e.g., interesting, meaningful to me, and worth remembering; Cronbach’s $\alpha = .88$).

**Results**

**Descriptive analyses**

Binge drinking was prevalent among the sample, with relatively more men (79.2%) reporting having engaged in binge drinking in the month prior to the pre-test than women (65.8%). In line with previous research, individuals’ structural and meta-bases did not correlate with each other, $r(124) = .10, p = .29$ (See et al., 2008), nor did they correlate with any of the other variables.
Effects of matching and mismatching on message judgment

In line with our prediction, meta-base, but not structural base, interacted with message type to influence message judgment. Messages matching individuals’ meta-bases were judged more positively than messages mismatching them.

Table 1. Hierarchical regression analyses with message Judgment, attitude at T2, and intention at T2 as dependent variables.

<table>
<thead>
<tr>
<th></th>
<th>Message Judgment</th>
<th>Attitude at T2</th>
<th>Intention at T2</th>
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<tbody>
<tr>
<td></td>
<td>B</td>
<td>t</td>
<td>B</td>
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<tr>
<td>Step 1</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Message type (A)</td>
<td>.14</td>
<td>1.33</td>
<td>.07</td>
</tr>
<tr>
<td>Meta-base (B)</td>
<td>-.08</td>
<td>-.71</td>
<td>-.16</td>
</tr>
<tr>
<td>Structural base (C)</td>
<td>-.13</td>
<td>-1.25</td>
<td>-.02</td>
</tr>
<tr>
<td>Attitude at T1</td>
<td>–</td>
<td>–</td>
<td>.30</td>
</tr>
<tr>
<td>Intention at T1</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Step 2</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>A × B</td>
<td>-.21</td>
<td>-2.00*</td>
<td>-.18</td>
</tr>
<tr>
<td>A × C</td>
<td>.05</td>
<td>.46</td>
<td>.24</td>
</tr>
</tbody>
</table>

*p < .05; ***p < .001.

To test this interaction, we performed a two-step hierarchical regression analysis (see Table 1). First, scores on structural base and meta-base were standardized, and message type was contrast coded (-1 = affective, 1 = cognitive). Next, interaction terms for message type by structural base and message type by meta-base were computed. Message type, structural and meta-bases were entered as predictors in step one of the hierarchical regression analysis, and the interaction terms were entered in step two. None of the variables in step one predicted message judgment. In step two, we found no interaction between message type and structural base, as expected. In line with our prediction, we did find a significant interaction between message type and meta-
base \( b = -.21 \), \( t(88) = -2.00, p = .05 \). The more strongly meta-base matched message type, the more positively the message was judged (see Figure 1). The nature of this interaction was further explored using simple slopes analyses. Regression lines were examined at two levels of meta-base: one standard deviation below the mean (cognitive meta-base) and one standard deviation above the mean (affective meta-base). Message type was found to be a predictor of message judgment only for individuals with a cognitive meta-base \( b = .36 \), \( t(88) = 2.39, p = .02 \), not for individuals with an affective meta-base \( b = -.06 \), \( t(88) = -.42, p = .67 \). These results indicate that messages matching individuals’ meta-bases are judged more positively than messages mismatching their meta-bases, but only by individuals with a cognitive meta-base.
Effects of matching and mismatching on attitude and intention change

Next, we examined the effect of matching versus mismatching message type with structural and meta-base on attitude change. In contrast with the findings for message judgment, structural base, but not meta-base, interacted with message type to influence attitude change. Contrary to our expectation, attitude change became more positive as individuals’ attitudes more strongly mismatched the message.

Again, we performed a hierarchical regression analysis with two blocks (see Table 1). In the first, we entered attitude at T1, message type (contrast coded), and the standardized scores on structural and meta-bases. Attitude at T1 emerged as a significant predictor ($b = .45$), $t(88) = 3.72, p = .00$, but none of the other variables did. In the second block, we added the message type by structural base and message type by meta-base interaction terms. Meta-base did not interact with message type, but structural base did ($b = .24$), $t(88) = 2.10, p = .04$.

Surprisingly, the interaction suggested that attitudes at T2 became more positive as individuals’ structural bases more strongly mismatched the message they received (see Figure 2). We performed simple slopes analysis to assess whether this was true for both individuals with a cognitive structural base (defined as one standard deviation below the structural base mean) and those with an affective structural base (one standard deviation above the structural base mean). This was not the case. There was a marginally significant tendency such that message type predicted attitude at T2 for individuals with an affective structural base ($b = .33$), $t(88) = 1.98, p = .05$, but it did not do so for those with a cognitive structural base ($b = -.16$), $t(88) = -.99, p = .33$.

Finally, to assess whether the positive effect of mismatching the structural base goes beyond attitudes to influence individuals’ inten-
tions, we repeated the above analysis with intention change as dependent variable. The results were in line with those found for attitude change.

Figure 2. Attitude change as a function of the structural base by message type interaction.

We entered intention at T1, message type (contrast coded), and standardized values of structural and meta-base in the first step of the hierarchical regression analysis, and the message type by structural base and message type by meta-base interaction terms in the second (see Table 1). In the first step, significant predictors were intention at T1 (b = 1.57), t(88) = 14.81, p = .00, and structural base (b = -.26), t(88) = -2.41, p = .02. That is, the more individuals based their attitudes on cognition, the more positive were their intentions to refrain from binge drinking at T2. Of more importance, in line with the result found for attitude, message type interacted with structural base, such that intentions became more positive as individuals’ structural bases more strongly mismatched message type (b = .24), t(88) = 2.21, p = .03. Again, message type did not interact with meta-base. Replicating the result
found for attitude, simple slopes analysis revealed that the mismatch effect was significant only for individuals with an affective structural base ($b = .33$), $t(88) = 2.14$, $p = .04$, and not for those with a cognitive structural base, ($b = -.14$), $t(88) = -.95$, $p = .35$.

**Figure 3.** Intention change as a function of the structural base by message type interaction.

**Discussion**

The goal of the present study was to assess the efficacy of persuasive messages tailored to either individuals’ meta-assessment of their attitude bases (meta-base), or a more objective measure of their attitude bases (structural base). As expected, meta-bases, but not structural bases, interacted with message type to influence message judgment. Messages matching individuals’ meta-bases were judged more positively than messages mismatching them. In contrast, structural bases, but not meta-bases, interacted with message type to influence attitude and intention change. Contrary to our prediction, messages mismatching
individuals' structural bases were more effective in changing attitudes and intentions than messages matching them.

The finding that structural and meta-bases interacted differently with message type illustrates the independence of the two measures. They did not significantly correlate in the present study, nor did they do so in previous literature (See et al., 2008). This demonstrates individuals' inability to evaluate their attitudinal bases. Individuals cannot directly observe their psychological processes, so in evaluating their attitude bases, they have to rely on their analyses of previously formed attitudes. The result is dramatically inaccurate. Interestingly, although individuals' self-assessments of their attitude bases are no reflection of their actual attitude bases, such self-assessments become guiding forces in themselves. The results show that meta-bases influence individuals' judgments of messages, such that messages are judged more positively when the type of information given matches their meta-bases. This was true especially for individuals with a cognitive meta-base, implying that such individuals place greater value on arguments pertaining to instrumental (versus emotional) consequences of binge drinking. Individuals with an affective meta-base on the other hand, seem to value both types of arguments equally. Alternatively, individuals with an affective meta-base may have processed the message to a lesser extent, resulting in them paying less attention to the type of arguments given.

See et al. (2008) found that individuals spend more time reading messages that match (versus mismatch) their meta-base. Together with the present findings, this supports the idea that individuals have a preference for information that matches their meta-base. In the present study, the influence of meta-bases did not go beyond message judgment; meta-bases had no impact on attitude or intention change. Matching individuals' meta-bases should thus not facilitate persuasion; however,
as individuals do seem to have a preference for information matched to their meta-base, it may be a good strategy when the aim is to increase knowledge through an informational message.

Contrary to the present finding, See et al. (2008) found that meta-bases do interact with message type to influence attitude change. The difference between their result and ours is possibly due to the difference between the behaviors studied. See et al. studied blood donation, whereas we studied refraining from binge drinking. Binge drinking was very prevalent among the current sample (69.1% indicated having engaged in binge drinking at least once in the month prior to the pretest). It is likely that participants had high involvement with binge drinking, and strong attitudes toward it. Although See et al. (2008) presented no data on this, their participants may have had little experience with blood donation, and their attitudes may have been less developed. The discrepancy between our findings and those of See et al. may thus reflect a difference in the strengths of the attitudes toward the behavior. A subjective match with a persuasive message may be enough to change weaker but not stronger attitudes. Obviously, future studies incorporating a measure of attitude strength are needed to validate this claim.

Our results suggest that not meta-bases, but structural bases hold the key to persuasion. Structural bases interacted with message type to influence attitude and intention change. Contrary to our expectations, attitude and intention change were larger when messages mismatched individuals’ structural bases, compared to when they matched them. Most studies on this topic have found evidence for matching effects (Edwards, 1990; Huskinson & Haddock, 2004; Mayer & Tormala, 2010; See et al., 2008), (but see Millar & Millar, 1990). A possible explanation for the present findings lies in the behavior and sample studied. The present study was the first to study the efficacy of matching versus
mismatching persuasive messages discouraging binge drinking. Substance use-control messages have been found to incite psychological reactance (e.g., Grandpre, Alvaro, Burgoon, Miller, & Hall, 2003). Messages discouraging alcohol use may be especially prone to evoking reactance among populations in which it is wide-spread, as was the case with the current sample of college students. When the risk of reactance is high, messages mismatching individuals' attitude bases may be perceived as less threatening to existing beliefs, and therefore be more easily accepted (cf. Millar & Millar, 1990). In addition, as many college students have much experience with alcohol use, their attitudes may be very strong, and this may be especially true for the particular base (affective or cognitive) on which they tend to build their attitude. For example, an individual with an affective attitude base may be very convinced about what it feels like to drink alcohol, and someone with a cognitive attitude base may be very sure about the advantages and disadvantages of drinking alcohol. If such beliefs are based on repeated experience, they are prone to be very strong, and hard to change. It seems likely that offering a new type of information (i.e., mismatching their attitude bases) will be more persuasive than trying to change these strong existing beliefs. Mismatching messages are more likely to offer information that was previously not considered, and may therefore be more persuasive than messages matching individuals' attitude bases.

Mismatching was especially effective for individuals with an affective structural base, whereas those with a cognitive structural base were equally persuaded by affective and cognitive messages. This result implies that individuals with a cognitive structural base are equally accepting of arguments that challenge their beliefs as they are of those that provide a new type of information. In contrast, individuals with an affective structural base seem to be less accepting of arguments that challenge their dominant attitude base. Alternatively, it has been sugg-
ested that affective attitude bases have a unidimensional structure, whereas cognitive attitude bases consist of multiple dimensions, each representing evaluations of different aspects of the attitude object (cf. Edwards, 1990). For individuals with a cognitive structural base, each cognitive argument will then challenge, at most, one element of their dominant attitude base. For individuals with an affective structural base, every affective argument will challenge the whole of their affective attitude base, and may therefore evoke more reactance. Providing a new type of information (mismatching) should then be more important for individuals with an affective structural base than for individuals with a cognitive one, in line with our results.

In the present study, we have manipulated the persuasive messages by giving arguments pertaining to either the instrumental or affective consequences of the promoted behavior. By doing so, we were able to develop two messages that were similar in every other aspect. We feel this is an improvement over previous studies in which the affective and cognitive messages differed on several aspects. For example, the affective messages used by See et al. (2008) were narratives and focused on eliciting feelings in the reader, whereas the cognitive messages were written in an objective manner and focused on conveying arguments. There are different ways of manipulating the affect versus cognition distinction. We have chosen to manipulate only the type of argument given. This obviously limits the scope of the present article, as we have not looked into other ways of manipulating affect and cognition. A different strategy could be to manipulate the format of the message in terms of a personal testimonial (affective) versus an objective message (cognitive) (e.g., De Wit, Das, & Vet, 2008), or to manipulate the framing of the arguments in terms of “feel” versus “think” (e.g., “I feel / think that donating blood is one of the most important contributions I can make to society;” (see Mayer & Tormala, 2010)). Still another strategy
that is sometimes used, is to describe an attitude object in such a way that it elicits a feeling in the reader versus describing it in an objective manner. For example, Fabrigar and Petty (1999) presented individuals with either a message designed to evoke positive emotions toward a fictitious animal, or a message containing positive information about it. These are all strategies that have been employed in previous research, often in conjunction with each other. Future research is needed to clarify exactly which types of manipulations are responsible for which effects.

In line with previous research on structural and meta-attitudinal measures, the current study indicates that these are two separate and unrelated constructs (Bassili, 1996; See et al., 2008). A crucial implication of this finding is that researchers should not draw conclusions based on one of these measures alone.

Both measures have their own value. Messages are judged more positively when they match individuals’ meta-bases. However, the present study shows only structural bases interact with message type to influence attitude and intention change, and in fact change was greater when the message mismatched individuals’ structural bases. People prefer information in line with their own assessments of what determines their attitudes, but they are influenced by information tailored to the degree affect and cognition are actually associated with their attitudes.