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Mood and Multiple Source Characteristics: Mood Congruency of Source Consensus Status and Source Trustworthiness as Determinants of Message Scrutiny

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Abstract

This research deals with the interplay of mood and multiple source characteristics in regard to persuasion processes and attitudes. In a four-factorial experiment, mood (positive vs. negative), source consensus status (majority vs. minority), source trustworthiness (high vs. low) and message strength (strong vs. weak) were manipulated. Results were in line with predictions of a mood-congruent expectancies perspective rather than competing predictions of a mood-as-information perspective. Specifically, individuals in both moods evinced higher message scrutiny given mood-incongruent (vs. mood-congruent) source characteristics. That is, across source trustworthiness, positive (negative) mood led to higher message scrutiny given a minority (majority) versus a majority (minority) source. Further, across source consensus, positive (negative) mood led to higher message scrutiny given an untrustworthy (trustworthy) versus a trustworthy (untrustworthy) source. Additional analyses revealed that processing effort increased from doubly mood-congruent source combinations (low effort) over mixed-source combinations (intermediate) to doubly mood-incongruent combinations (high effort). Implications are discussed.

Keywords: mood, congruency, information processing, expectancies, consensus, majority-minority, trustworthiness

Mood and Multiple Source Characteristics: Mood Congruency of Source Consensus Status and Source Trustworthiness as Determinants of Message Scrutiny

Imagine being in either an elated or a dejected mood. Now you learn about two attributes of a source of a persuasive message. One attribute concerns the extent to which other people support the position advocated by the source; the other attribute concerns the source's trustworthiness. What is the interplay of your current affective state and these two source characteristics in regard to persuasion processes and attitudes? Specifically, do different affective states lead to differences in the extent of message processing irrespective of these source attributes, or does the extent of message processing in positive and / or negative mood depend on one or both source attributes? Finally, do certain affective states lead to attitudes based directly on these attributes?

As we have argued (Ziegler, Diehl, & Ruther, 2002), persuasion research has often confounded type of information and amount of information. More specifically, the role for attitude change of one source characteristic is often compared to the role of multiple arguments. Accordingly, we have suggested that persuasion research should test the role of multiple source characteristics for attitude change. As a starting point, our research dealt with the role of different combinations of *two* source characteristics for attitude change. In particular, we argued that different combinations of two source attributes may affect the effort invested in message processing because valence-incongruent combinations (i.e., combinations consisting of one positive and one negative source attribute) are less expectancy-congruent than valence-congruent combinations (i.e., either both source attributes of positive valence or both of negative valence). More specifically, valence-incongruent combinations were predicted to lead to higher message scrutiny than valence-congruent combinations.

Results of two studies provided support for these predictions regarding the role of source congruency for message processing (Ziegler et al., 2002). For instance, in one study we found that strong arguments led to more attitudinal agreement and more favourable

message-related thinking than weak arguments given valence-incongruent combinations of expertise and likability (i.e., dislikable expert and likable nonexpert), but not given valence-congruent combinations (likable expert and dislikable nonexpert).

Our previous research tested the role of multiple source characteristics for persuasion processes and attitudes of individuals in non-manipulated, or neutral, mood. In the present research, we extend this research by testing the role of information about two different source attributes for persuasion processes and attitudes of individuals in either positive or negative mood. In this respect, we outline competing hypotheses derived from two different approaches regarding the role of mood in persuasion. More specifically, we describe predictions based on the mood-as-information approach (Schwarz, 1990; Schwarz, Bless, & Bohner, 1991) as well as predictions derived from a recently proposed mood-congruent expectancies approach (Ziegler, 2010).

Mood as information

According to the cognitive tuning extension of the mood-as-information approach (MAI; Schwarz, 1990; Schwarz et al., 1991), negative mood serves as a signal that the current situation is problematic, hence suggesting that it is necessary to deal with available information in an effortful manner. In contrast, positive mood signals that the current situation is benign, hence suggesting that it is unnecessary to invest effort in thinking about information that is available in the current situation. Rather, positive mood may lead to heuristic processing (Chaiken, 1987). That is, positive mood may lead individuals to agree more with an advocacy when, for instance, a majority rather than a minority supports a source's advocacy (e.g. Martin, Hewstone, & Martin, 2007). However, while a number of studies has found that positive (vs. negative) mood goes along with reduced effort in message processing (e.g. Bless, Bohner, Schwarz & Strack, 1990; Sinclair, Mark, & Clore, 1994; but see Handley & Lassiter, 2002; Wegener, Petty, & Smith, 1995; Ziegler, 2010), evidence for heuristic processing in positive (as compared to negative) mood is lacking in the persuasion

domain (e.g. Bohner, Crow, Erb, & Schwarz, 1992). In this respect, different combinations of two source attributes may allow for a particularly strong test of this hypothesis. For instance, in the case of different combinations of source consensus status (majority versus minority source) and source trustworthiness (trustworthy versus untrustworthy source), one combination results in a source that is both trustworthy and advocates a majority position. Another combination refers to a source that is both untrustworthy and advocates a minority position (cf. Moskowitz, 1996). Obviously, in these two cases of attribute combination, both a consensus heuristic (e.g. Darke, Chaiken, Bohner, Einwiller, Erb, & Hazlewood, 1998; Martin et al., 2007) and a trustworthiness heuristic (e.g. Eagly, Wood & Chaiken, 1978; McGinnies & Ward, 1980) lead to the same inference regarding the advocacy. That is, while a trustworthy majority source may lead to a positive inference, an untrustworthy minority source may lead to a negative inference. Hence, when positive mood entails a tendency to engage in heuristic processing (Schwarz, 1990; Schwarz, 2001), attitudes of individuals in an elated mood should be more in line with the advocacy of a trustworthy majority source as compared to an untrustworthy minority source.

With respect to the remaining two combinations, different predictions are possible. First, in the case of both a trustworthy minority source and an untrustworthy majority source, heuristic processing of source information would lead to two opposing inferences. That is, while heuristic processing of one source attribute leads to a positive inference, heuristic processing of the other source attribute leads to a negative inference. Accordingly, in light of the assumption that individuals in a positive mood tend to employ a heuristic processing strategy (Schwarz, 1990; Schwarz, 2001) it may be predicted that these individuals simply integrate these two inferences in an additive fashion. As a result, attitudinal agreement in positive mood might be lower in the case of these two attribute combinations than in the case of a trustworthy majority source, but higher than in the case of an untrustworthy minority source.

However, a second prediction can be based on the observation that moods appear to lead to similar processing tendencies as need for cognition (NC; Cacioppo & Petty, 1982). Specifically, Sinclair, Mark, and Clore (1994) pointed out that the mood-as-information approach assumes that good moods appear to result in processing strategies similar to those employed by people with low NC, that is, by individuals who do not characteristically enjoy thinking and therefore are dispositionally less willing to expend their cognitive resources than individuals high in NC (Cacioppo & Petty, 1982). In comparison, the mood-as-information perspective assumes that bad moods lead to strategies similar to those employed by people with high NC. That is, both individuals in negative mood and individuals with high NC are assumed to be more likely to invest effort in message processing than individuals in a positive mood and individuals with low NC. In contrast, both individuals in positive mood and individuals low in NC are assumed to have a stronger tendency to evince heuristic processing than individuals in negative mood and individuals high in NC. Of further interest in this respect, Ruys and Stapel (2008) recently argued that induced mood may affect individuals' NC. In fact, responses to a selection of four items of the NC scale (Cacioppo & Petty, 1982) indicated lower NC scores in positive rather than negative mood.

In this regard, further research on different combinations of two source attributes is of particular interest (Ziegler et al., 2002; Ziegler, Diehl, Zigon, & Fett, 2004). Specifically, in one study (Ziegler et al., 2002, Study 2) we found that the effect of source congruency on processing effort is moderated by individuals' NC. Specifically, a four-way interaction on attitudes of NC, source expertise, source trustworthiness, and argument strength revealed that strong arguments led to higher attitudinal agreement than weak arguments among low NC individuals in incongruent conditions (untrustworthy expert and trustworthy nonexpert). In congruent conditions (trustworthy expert and untrustworthy nonexpert), in comparison, low NC individuals' attitudes were not affected by message strength. Rather, indicative of heuristic processing (Chaiken, 1987), attitudes were more positive given a trustworthy expert

as compared to an untrustworthy nonexpert.

Similarly, Ziegler et al. (2004) found that incongruent (versus congruent) combinations of two of the three factors specified in the Kelley covariation model (consensus, distinctiveness, and consistency; Kelley, 1967) led to higher processing effort of low NC individuals, but not of high NC individuals. Specifically, in a first study, message strength affected low NC individuals' attitudes in the case of incongruent combinations of source consensus and source consistency (inconsistent majority source and consistent minority source), but not in the case of congruent combinations (consistent majority source and inconsistent minority source). In a second study, similar findings were found in the case of incongruent combinations of consensus and distinctiveness (indistinctive majority source and distinctive minority source) versus congruent combinations (distinctive majority source and indistinctive minority source).

In light of the relation of mood and need for cognition (Ruys & Stapel, 2008; Sinclair et al., 2004), our findings (Ziegler et al., 2002, 2004) lead to an alternative prediction regarding incongruent combinations of two source attributes such as consensus and trustworthiness. Specifically, rather than integrating opposing heuristic inferences, individuals in positive mood may invest more effort in thinking about the persuasive message given incongruent combinations (trustworthy minority source and untrustworthy majority source) as compared to congruent combinations (trustworthy majority source and untrustworthy minority source).

Finally, while the above reasoning dealt with individuals in a positive mood, predictions for individuals in a negative mood are more straightforward. That is, according to the mood-as-information approach (Schwarz, 1990) negative mood should lead to effortful message processing irrespective of source attributes. In this regard, as just noted, it has been argued that processing strategies of individuals in negative mood are functionally equivalent to processing strategies of individuals high in NC (Sinclair et al., 1994). In this respect, it is

worth noting that our previous research (Ziegler et al., 2004) has shown that individuals with high NC evince high processing effort irrespective of source congruency.

Overall, then, two sets of predictions are possible in regard to the role of two source attributes for persuasion processes and attitudes of individuals in a positive or a negative affective state (see Table 1). If individuals in a negative mood evince effortful message processing regardless of source attributes, and individuals in a positive mood evince heuristic processing of source attributes (Schwarz, 1990), the following predictions result:[1] first, argument strength should affect attitudes more strongly in negative mood as compared to positive mood; in contrast, consensus and trustworthiness should affect attitudes more strongly in positive mood as compared to negative mood. However, if processing strategies in positive (negative) mood are similar to processing strategies of individuals low (high) in NC (cf. Ruys & Stapel, 2008; Sinclair et al., 1994), the following predictions result: while (again) individuals in negative mood evince effortful processing of the persuasive message regardless of source attributes, individuals in positive mood should invest more effort in message processing given incongruent rather than congruent combinations. As a consequence, in incongruent conditions attitudes of individuals in positive mood should be affected by argument strength (e.g. Ziegler et al., 2004). In congruent conditions, in comparison, attitudes of individuals in positive mood should be affected by the valence of the two source attributes (e.g. Ziegler et al., 2002).

Mood-congruent expectancies

Alternative predictions can be derived from the mood-congruent expectancies model (MEM; Ziegler, 2010). This recently advanced approach suggests a single mechanism according to which both individuals in a positive mood and individuals in a negative mood may invest more or less effort in information processing. This approach is based on findings regarding the effects of mood on expectancies (e.g. Bower, 1981; Mayer, Gaschke, Braverman, & Evans, 1992), and on research regarding the role of mood-unrelated

expectancies for message processing (e.g. Baker & Petty, 1994; Ziegler et al., 2002). Specifically, research on mood and expectancies has shown that positive moods lead to more positive expectations than negative moods (Mayer et al., 1992), and research on mood-unrelated expectancies has shown that disconfirmed expectancies elicit more effortful message processing than confirmed expectancies (Baker & Petty, 1994).

Integrating these two lines of research, the MEM (Ziegler, 2010) holds that moods also entail mood-congruent expectancies regarding the factors involved in persuasive communication (Petty & Wegener, 1998). For instance, mood may implicate expectations regarding the valence of attributes of a message source (Mayer et al., 1992). Conceiving of persuasive communication as a sequential process (e.g. Kruglanski & Thompson, 1999), such mood-based expectations are assumed to impact message processing when pertinent information is salient in an early phase of the communication process (Higgins, 1996). According to the MEM, processing effort then depends on whether such early information confirms or disconfirms mood-based expectancies. As a result, both individuals in an elated mood and individuals in a slightly depressed mood may evince surprise and more effortful processing of a subsequent persuasive message when mood-based expectancies are disconfirmed rather than confirmed (cf. Olson, Roese, & Zanna, 1996). Further, the MEM assumes that such mood effects on message processing are most likely to occur when other factors unrelated to mood do not constrain processing motivation and ability to be high or low (cf. Wegener & Petty, 2001). Rather, message processing effects of mood are assumed to arise under unconstrained conditions of processing motivation and ability.

In fact, Ziegler (2010) provided evidence for this mood-based expectations perspective in two experiments each of which involved a single source characteristic. Specifically, these experiments showed that people in positive moods as well as people in negative moods processed a message more thoroughly when initial source information suggested the source to have a mood-incongruent attribute rather than a mood-congruent attribute. That is, while

message strength (strong vs. weak message) affected attitudes of individuals in a positive mood confronted with either a dishonest source (Ziegler, 2010, Study 1) or a dislikable source (Ziegler, 2010, Study 2), it did not affect their attitudes when the source was either honest or likable. In contrast, while message strength affected reactions of individuals in a negative mood when the source was either likable or honest, it did not affect their reactions when the source was either dislikable or dishonest. Further, ratings of surprise were higher given mood-incongruent likability (positive mood / dislikable source and negative mood / likable source) rather than mood-congruent likability (positive mood / likable source and negative mood / dislikable source). Finally, results of mediation analyses were consistent with the presumed role of surprise for message scrutiny in mood-incongruent versus mood-congruent source conditions.

It is worth noting that these findings emerged in regard to attitudinally "neutral" advocacies, that is, advocacies that were neither clearly proattitudinal nor clearly counterattitudinal. This is important because it has been argued (Wegener et al., 1995) that research showing low processing effort in positive mood has employed counterattitudinal or depressing messages (e.g. acid rain, fee increases). In fact, in line with a hedonic contingency model (HCM; Wegener & Petty, 1994), positive mood has been shown to lead to substantial processing effort when recipients are presented with highly salient and explicit information regarding the mood-elevating (versus mood-devastating) outcome of message processing prior to the message proper (Wegener et al., 1995; but see Handley & Lassiter, 2002; see Ziegler, 2010, for a discussion of the relation of the MEM to the HCM as well as the MAI).

With respect to different combinations of two source attributes such as consensus and trustworthiness, the MEM leads to the prediction that processing effort should be higher when either consensus or trustworthiness information is mood-incongruent as compared to when information regarding either consensus or trustworthiness is mood-congruent (see Table 1). More specifically, in regard to source consensus status, positive mood should lead to higher

processing effort when the source advocates a minority position (negative source valence) rather than a majority position (positive source valence). Negative mood, in contrast, should lead to higher processing effort when the source advocates a majority position (positive valence) rather than a minority position (negative valence). Similarly, in regard to source trustworthiness, positive mood should lead to higher processing effort when the source is untrustworthy rather than trustworthy. Negative mood, in contrast, should lead to higher processing effort when the source is trustworthy rather than untrustworthy. Of importance, in both cases, these predictions should hold across levels of the second source attribute.

The present research

We conducted a study to test the conflicting predictions derived from a mood-congruent expectancies perspective (Ziegler, 2010) versus a mood-as-information perspective (Schwarz, 1990). To this end, the study employs a four-factorial design in which recipient mood, source consensus status, source trustworthiness, and argument strength are manipulated orthogonally. Similar to previous research regarding mood-congruent expectancies (Ziegler, 2010), we employed an attitudinally neutral advocacy (see also Wegener et al., 1995).

Three different sets of predictions result from (1) the mood-as-information perspective alone (Schwarz et al., 1991), (2) the mood-as-information perspective in combination with research regarding the presumed relation of mood and need for cognition (Ruys & Stapel, 2008; Sinclair et al., 2004) and previous findings regarding need for cognition and source congruency (Ziegler et al., 2002, 2004), and (3) the mood-congruent expectancies perspective (Ziegler, 2010). First, based on the mood-as-information perspective (Schwarz et al., 1991), three two-way interactions should be found. Two-way interactions of mood with argument strength, mood with consensus, and mood with trustworthiness may reveal that argument strength affects attitudes more strongly in negative as compared to positive mood. In contrast, consensus and trustworthiness should affect attitudes more strongly in positive rather than

negative mood (Chaiken, 1987).

Second, based on the mood-as-information perspective in combination with findings regarding need for cognition and source congruency (Ruys & Stapel, 2008; Sinclair et al., 1994; Ziegler et al., 2004), a four-way interaction might be found. Such an interaction should reveal that argument strength affects attitudes in negative mood regardless of consensus and trustworthiness. In comparison, attitudes in positive mood should be affected more by argument strength given incongruent combinations as compared to congruent combinations of the two source attributes. Further, in congruent conditions attitudes in positive mood should be more in line with the advocated position given a trustworthy majority source as compared to an untrustworthy minority source (Ziegler et al., 2002).

Finally, based on the mood-congruent expectancies perspective (Ziegler, 2010), two three-way interactions are predicted. First, an interaction of mood, consensus, and argument strength should reveal that mood-incongruent consensus information leads to higher message scrutiny than mood-congruent consensus information. In a similar vein, a further interaction of mood, trustworthiness, and argument strength should show that a mood-incongruent level of trustworthiness leads to higher message scrutiny than a mood-congruent level of trustworthiness.

Method

Participants and design. Participants were 137 students (58 female, 79 male) at the University of Tuebingen (age: $M = 23.01$; $SD = 3.24$) who participated in the study in return for a small reward worth about 1.50 Euro. They were randomly assigned to one of the experimental conditions in the 2 (positive vs. negative mood) x 2 (majority vs. minority source) x 2 (trustworthy vs. untrustworthy source) x 2 (strong vs. weak arguments) between-subjects factorial design.

Procedure and independent variables. Students were approached in the university cafeteria building by a research assistant and were asked whether they would be interested in

taking part in two independent studies. In a quiet area of the building, five tables were prepared so that up to five participants could take part in parallel. In the ostensible first study, participants were asked to provide a vivid written report of either a happy or a sad life event, purportedly to help with the construction of a "Life Event Inventory". This induction method has been employed successfully in numerous previous mood studies (e.g. Bless et al., 1990). Participants were asked to spend eight minutes on this report. Afterwards, they were asked several questions about this task. Embedded within these questions were two manipulation check items which asked participants to indicate the extent to which they felt happy and sad right now (1 = *not at all happy / sad* to 9 = *very happy / sad*).

In regard to the second study, participants read that it was their task to form an impression of a person based on written information about this person. Participants read that the information concerned a person who had presented his opinion on a planned project in a public discussion meeting. They were then informed that the opinion had to do with the construction of a tunnel underneath the Antwerp harbor. In order to make salient the source characteristics, the next booklet contained only an introductory description of the person. In all conditions, this introductory description started by stating that Mr. Maarten van E. was 53 years old, married, and father of two children. Further, it was said that he was working for the city of Antwerp on the planning board for transportation and infrastructure, and that he had expressed his support for the tunnel construction in Antwerp in a public discussion meeting.

In *trustworthy source* conditions, participants then read that the source's integrity and honesty was indisputable. For example, on the occasion of an anniversary of service, he received an excessive bonus payment. Already prior to the detection of this error by the city treasury, he reported it in order to return the amount that he was not entitled to. In *untrustworthy source* conditions, it was stated that the source's integrity and honesty was disputable. For example, on the occasion of an anniversary of service, he received an excessive bonus payment. When this error was realized by the city treasury, he refused to

return the amount that he was not entitled to.

Information on source consensus status followed immediately after information on source trustworthiness. In conditions with *high (low) consensus* participants read:

> As it turned out in a representative opinion poll conducted on this topic a few days after the public discussion meeting, a majority of 67 % (only a minority of 34 %) of the Antwerp population also advocates the realization of this project. In those districts directly affected by the tunnel construction, 69 % (32 %) of the population voiced their support for it.

In the next booklet, participants were presented with a statement of the person regarding the tunnel construction project which served as the persuasive message. The source first stated that he believed that there were a number of considerations speaking in favor of building the tunnel. This was followed by one of two sets of four arguments. According to a pretest, one set consisted of four *strong arguments*; another set consisted of four *weak arguments* (see Ziegler, Dobre, & Diehl, 2007, for details regarding the argument selection procedure). Previous research has successfully employed these two sets of arguments to manipulate message strength (Ziegler, 2010; Ziegler et al., 2004).

The first argument in *strong-argument* conditions read:

> To begin with, measurements of the noise level indicate that residents in the suburbs on the water-front are extremely stressed by traffic noise on the existing feeder road. Calculations show that the construction of a by-pass road and the tunnel will lead to a 70 % reduction of the noise level for these residents.

The other three strong arguments concerned a 60 % reduction in air pollution, advantages for freight traffic due to a shortening of transportation time by 20 %, and the possibility of building playgrounds for children in renatured areas. The first argument in *weak-argument* conditions was:

> To begin with, the new filter elements already employed in modern heating

power stations that are supposed to be built into the tunnel function like a catalytic converter. This way the stale air in the tunnel will be purified so that the volume of exhaust fumes will be reduced by 2 %.

Three further weak arguments were related to a 5 % subsidy from a European Community fund for the advancement of the European infrastructure, a reduction of the risk of accidents by 3 %, and a small reduction in the number of unemployed laborers in the local building trade.

Further booklets were made up of the dependent measures, demographic questions, and an open-ended suspicion probe. The last booklet contained a debriefing sheet. Participants then went to the experimenter, selected their reward, were thanked and dismissed.

Dependent measures. Unless noted otherwise, ratings were made on scales ranging from 1 to 7.

Attitudes. Participants' evaluation of the tunnel construction project was measured on three semantic differential scales ranging from *harmful* / *disadvantageous / pointless* to *useful / advantageous / meaningful*.

Source perceptions and involvement. The statement "The tunnel construction project meets with wide-spread public support in Antwerp" (*completely incorrect* to *completely correct*) and a question referring to what the people in Antwerp think about the tunnel project (*majority opposes it* to *majority endorses it*) were included to measure perceived consensus. Perceived source trustworthiness was measured by asking participants to indicate their agreement with two statements according to which Mr. van E. "appears to be trustworthy" and "leaves an honest impression" (*do not agree at all* to *fully agree*). To provide evidence regarding the valence of the two source characteristics (i.e., a majority source is perceived as more positive than a minority source, and a trustworthy source is perceived as more positive than an untrustworthy source), participants were also asked to indicate their overall impression of Mr. van E. (*very negative* to *very positive*). Involvement was measured by an

item asking how interested they had been in getting to know the considerations of the source to explain his position (*not at all interested* to *very interested*).

***Cognitive responses*.** Participants were also asked to write down the thoughts they had while reading the information presented to them. These thoughts might relate to the person, to the tunnel construction, or to other matters. Twelve lines were provided; participants were asked to start a new line for each thought and to spend three minutes writing them down. Two independent raters blind to conditions coded thoughts as to whether they were message-related, or other-related. Message-related thoughts were further coded as favorable, unfavorable, or neutral with respect to the tunnel. Interrater agreement was high (78%); disagreements were resolved by discussion.

Results

Unless noted otherwise, the data were analyzed by four-way recipient mood x source consensus status x source trustworthiness x argument strength analyses of variance (ANOVAs). Data from four participants were discarded because they provided no response to any of the attitude items.[2]

Mood. Happiness and sadness responses were highly correlated (r = -.70, $p < .0001$), so they were averaged after reversing sadness scores. As shown by a t-test, participants' mood was more elated in happy mood conditions (M = 7.01; SD = 1.57) than in sad mood conditions (M = 4.08; SD = 1.90), $t(131) = 9.73$, $p < .0001$.

Source perceptions and involvement. Responses on the two items to measure perceived consensus were averaged (r = .91, $p < .0001$). A consensus main effect, $F(1, 115) = 366.87$, $p < .0001$, showed that the public was rated to be more in favor of the tunnel project in majority source conditions (M = 5.75; SD = 0.99) than in minority source conditions (M = 2.29; SD = 1.03). The two perceived trustworthiness ratings were also averaged (r = .78, $p < .0001$). An ANOVA on these scores revealed a source trustworthiness main effect, $F(1, 115) = 114.67$, $p < .0001$. The source was rated as more trustworthy in trustworthy source

conditions (M = 5.49; SD = 1.21) than in untrustworthy source conditions (M = 3.20; SD = 1.23). An ANOVA on participants' overall impression of the source revealed main effects of source consensus status, $F(1, 115) = 4.25$, $p < .04$, and source trustworthiness, $F(1, 115) = 31.41$, $p < .0001$. The consensus effect showed that the overall impression was more positive in majority source conditions (M = 4.47; SD = 1.40) than in minority source conditions (M = 4.08; SD = 1.27). The trustworthiness effect showed that the overall impression was more positive in trustworthy source conditions (M = 4.87; SD = 1.19) than in untrustworthy source conditions (M = 3.68; SD = 1.23). In regard to involvement, an ANOVA did not reveal any significant effect. Overall, involvement was moderate (M = 4.26; SD = 1.88).

These findings indicate that the manipulations of consensus and trustworthiness were successful. Further, a majority source and a trustworthy source are more positively valenced than a minority source and an untrustworthy source.

Attitudes. Each participant's responses to the three attitude items were averaged (Cronbach's *alpha* = .81). An ANOVA on these attitude scores (see Table 2) revealed main effects of argument strength, $F(1, 117) = 13.34$, $p < .001$, and consensus, $F(1, 117) = 5.17$, $p < .03$. Strong arguments (M = 5.50; SD = 1.05) led to more positive attitudes than weak arguments (M = 4.81; SD = 1.14), and majority support (M = 5.37; SD = 1.10) led to more positive attitudes than minority support (M = 4.91; SD = 1.16).

More important, the ANOVA revealed two three-way interactions that were in line with the hypotheses derived from a mood-congruent expectancies perspective (Ziegler, 2010). First, the interaction of mood, consensus, and argument strength was found significant, $F(1, 117) = 5.50$, $p < .03$ (see Figure 1, top panel). Decomposition of this three-way interaction revealed an argument strength effect in mood-incongruent consensus conditions (positive mood—minority source and negative mood—majority source), $F(1, 117) = 18.81$, $p < .001$ (both other Fs < 1). Strong arguments led to more positive attitudes (M = 5.75; SD = 0.86) than weak arguments (M = 4.63; SD = 1.15). In contrast, in mood-congruent consensus

conditions (positive mood—majority source and negative mood—minority source) argument strength did not affect attitudes ($F < 1$). Instead, a consensus effect, $F(1, 117) = 6.44$, $p < .02$ (for the interaction $F < 1$) revealed that attitudes were more positive given positive mood—majority source ($M = 5.44$; $SD = 0.92$) than given negative mood—minority source ($M = 4.82$; $SD = 1.26$). Further, simple effects tests showed that strong arguments led to more positive attitudes than weak arguments in the case of positive mood—minority source (Ms = 5.76 and 4.45; SDs = 0.70 and 0.96), $t(117) = 3.60$, $p < .001$, and negative mood—majority source (Ms = 5.74 and 4.81; SDs = 1.02 and 1.31), $t(117) = 2.55$, $p < .02$. In comparison, strong arguments did not lead to more positive attitudes than weak arguments given positive mood—majority source (Ms = 5.46 and 5.42; SDs = 1.09 and 0.74), $t < 1$, or given negative mood—minority source (Ms = 5.02 and 4.57; SDs = 1.20 and 1.30), $t(117) = 1.18$, $p = .24$.

Further, the interaction of mood, trustworthiness, and argument strength was significant, $F(1, 117) = 4.39$, $p < .04$ (see Figure 2, top panel). Decomposition of this interaction showed that attitudes in conditions with mood-incongruent trustworthiness (positive mood—untrustworthy source and negative mood—trustworthy source) were affected by argument strength, $F(1, 117) = 16.25$, $p < .001$ (both other Fs < 1). Strong arguments led to more positive attitudes ($M = 5.59$; $SD = 1.06$) than weak arguments ($M = 4.56$; $SD = 1.05$). In contrast, in mood-congruent trustworthiness conditions (positive mood—trustworthy source and negative mood—untrustworthy source) argument strength did not affect attitudes ($p > .27$, both other ps > .3). Simple effects tests showed that strong arguments led to more positive attitudes than weak arguments in the case of positive mood—untrustworthy source (Ms = 5.71 and 4.67; SDs = 0.90 and 0.91), $t(117) = 2.86$, $p < .006$, and negative mood—trustworthy source (Ms = 5.48 and 4.42; SDs = 1.19 and 1.22), $t(117) = 2.91$, $p < .005$. In comparison, attitudes in strong and weak argument conditions were similar given positive mood—trustworthy source (Ms = 5.54 and 5.22; SDs = 0.93 and 1.01), $t < 1$, and given negative mood—untrustworthy source (Ms = 5.28 and 4.98; SDs = 1.16 and 1.37), $t < 1$.

No other effects were found (all *p*s > .13). In particular, the two-way interactions predicted by the mood-as-information approach (Schwarz, 1990), that is, mood with message strength, mood with consensus, and mood with trustworthiness, were not significant (all *p*s > .28). Also, the four-way interaction predicted on the basis that moods may lead to similar processing strategies in relation to source congruency as need for cognition (Ruys & Stapel, 2008; Schwarz, 1990; Sinclair et al., 1994; Ziegler et al., 2002, 2004) was not significant ($F < 1$).

Given that the results of the overall ANOVA are consistent with predictions derived from a mood-congruent expectancies approach, it is illuminating to further analyze attitudes in terms of mood incongruency of the combinations of source characteristics. That is, from the perspective of the MEM (Ziegler, 2010) an untrustworthy minority source represents a doubly mood-incongruent source for individuals in positive mood, but a doubly mood-congruent source for individuals in negative mood. In contrast, a trustworthy majority source represents a doubly mood-incongruent source for individuals in negative mood, but a doubly mood-congruent source for individuals in positive mood. For individuals in both moods, an untrustworthy majority source and a trustworthy minority source represent mixed sources with both one mood-congruent and one mood-incongruent characteristic. Hence, it should be found that processing effort in both moods is very low given a doubly mood-congruent source, and very high given a doubly mood-incongruent source. Given mixed sources, processing effort in both moods should lie in between.

To test these predictions, we conducted a moderated regression analysis (Cohen & Cohen, 1983) with orthogonal contrast coding of the four different combinations of source characteristics (i.e., doubly mood-congruent source combinations were contrasted against mixed-source conditions, mixed-source conditions were contrasted against doubly mood-incongruent source combinations, and the two mixed-source conditions were contrasted against each other). Mood and argument strength were effect-coded. All two-way and three-

way product terms of mood, source characteristics combination, and argument strength were calculated. All predictors were entered into the regression analysis simultaneously.

As predicted, the regression analysis revealed two interaction effects in line with an increasing impact of argument strength on attitudes with increasing mood incongruency. That is, a first interaction, $t(117) = 2.32$, $p < .03$, revealed that the effect of argument strength on attitudes was stronger in the case of doubly mood-incongruent sources (strong arguments: $M = 5.85$; $SD = 0.67$; weak arguments: $M = 4.43$; $SD = 1.01$), $t(117) = 3.91$, $p < .001$, than in the case of mixed sources (strong arguments: $M = 5.48$; $SD = 1.18$; weak arguments: $M = 4.76$; $SD = 1.18$), $t(117) = 2.93$, $p < .005$. A second interaction, $t(117) = 2.81$, $p < .01$, showed that the effect of argument strength on attitudes was stronger in the case of mixed sources as compared to doubly mood-congruent sources. In fact, given doubly-mood-congruent sources, attitudes did not differ in the case of strong ($M = 5.17$; $SD = 1.03$) and weak arguments ($M = 5.40$; $SD = 1.01$), $t < -1$.[3]

These findings are consistent with a progression of processing effort from low (given doubly mood-congruent sources) to high (given doubly mood-incongruent sources), with processing effort in the case of mixed sources (one mood-congruent and one mood-incongruent characteristic) lying in between low and high. Note also that the argument strength effect in mixed-source conditions is consistent with the assumption that individuals in both positive and negative mood evince effortful processing already once one of two source characteristics is mood-incongruent.

Cognitive responses. A cognitive response index was computed by subtracting the number of unfavorable message-related thoughts from the number of favorable message-related thoughts.[4] An ANOVA on this index (see Table 3) revealed a main effect of argument strength, $F(1, 115) = 7.11$, $p < .01$. Strong arguments ($M = 0.26$; $SD = 1.15$) led to more favorable thoughts than weak arguments ($M = -0.40$; $SD = 1.48$). Further, the effect of consensus approached conventional levels of significance, $F(1, 115) = 3.25$, $p = .074$. A

majority source (M = 0.15; SD = 1.44) elicited slightly more favorable thinking than a minority source (M = -0.26; SD = 1.25; SD = 1.34). In further agreement with the results on attitudes, the ANOVA revealed two marginally significant three-way interactions of mood, consensus, and argument strength $F(1, 115) = 3.06$, $p = .083$ (see Figure 1, bottom panel), and of mood, trustworthiness, and argument strength, $F(1, 115) = 3.38$, $p = .069$ (see Figure 2, bottom panel).

Decomposition of the mood by consensus by argument strength interaction showed that in mood-incongruent consensus conditions only the argument strength effect was significant, $F(1, 115) = 10.20$, $p < .003$ (both other ps > .15). Strong arguments led to more favorable thoughts (M = 0.50; SD = 1.18) than weak arguments (M = -0.56; SD = 1.56). In contrast, in mood-congruent consensus conditions argument strength did not affect thought valence ($F < 1$, both other ps > .25). Further, simple effects tests showed that strong arguments led to more favorable thinking than weak arguments in the case of positive mood—minority source (Ms = 0.28 and -0.81; SDs = 0.96 and 1.47), $t(115) = 2.32$, $p < .03$, and negative mood—majority source (Ms = 0.72 and -0.31; SDs = 1.36 and 1.66), $t(115) = 2.20$, $p < .03$, but not given positive mood—majority source (Ms = 0.27 and -0.13; SDs = 1.03 and 1.50), $t < 1$, or given negative mood—minority source (Ms = -0.22 and -0.36; SDs = 1.06 and 1.74), $t < 1$.

Similarly, decomposition of the mood by trustworthiness by argument strength interaction showed that in mood-incongruent trustworthiness conditions only the argument strength effect was significant, $F(1, 115) = 10.22$, $p < .003$ (both other Fs < 1). Strong arguments led to more favorable thoughts (M = 0.35; SD = 1.12) than weak arguments (M = -0.75; SD = 1.48). In contrast, thought valence was unaffected in mood-congruent trustworthiness conditions (all $F < 1$). Simple effects tests showed that strong arguments led to more favorable thoughts than weak arguments in the case of positive mood—untrustworthy source (Ms = 0.31 and -0.88; SDs = 1.08 and 1.22), $t(115) = 2.48$, $p < .02$, and negative

mood—trustworthy source (*M*s = 0.39 and -0.60; *SD*s = 1.20 and 1.76), $t(115) = 2.04$, $p < .05$, but not given positive mood—trustworthy source (*M*s = 0.24 and 0.00; *SD*s = 0.90 and 1.69), $t < 1$, or given negative mood—untrustworthy source (*M*s = 0.11 and -0.07; *SD*s = 1.41 and 1.58), $t < 1$. No other effects were found (all *p*s > .24). In particular, similar to the results on attitudes, neither the two-way interaction of mood and message strength nor the four-way interaction were significant (*both F*s < 1).

As in regard to attitudes, the thought data were also analyzed in terms of the extent of mood incongruency. Again, a moderated regression analysis revealed the two interaction effects consistent with an increasing impact of argument strength on message-related thoughts with increasing mood incongruency. That is, a first interaction, $t(115) = 2.21$, $p < .03$, revealed that the effect of argument strength on thoughts was stronger in the case of doubly mood-incongruent sources (strong arguments: $M = 0.61$; $SD = 1.20$; weak arguments: $M = -0.94$; $SD = 1.39$), $t(115) = 3.29$, $p < .002$, than in the case of mixed sources (strong arguments: $M = 0.24$; $SD = 1.10$; weak arguments: $M = -0.38$; $SD = 1.62$), $t(115) = 1.76$, $p = .081$. A second interaction showed that the effect of argument strength on thoughts was stronger in the case of mixed sources as compared to doubly mood-congruent sources, $t(115) = 1.93$, $p = .056$. Given doubly mood-congruent sources, strong ($M = -0.06$; $SD = 1.14$) and weak arguments ($M = 0.14$; $SD = 1.56$) led to similar thoughts, $t(115) = -0.36$, $p > .7$.[5]

Thus, these findings are also consistent with a progression of processing effort from low (doubly mood-congruent sources) to high (doubly mood-incongruent sources), with processing effort in the case of mixed sources lying in between.

Correlation between cognitive responses and attitudes. In line with the three-way interactions of mood, consensus, and argument strength on attitudes and message-related thoughts, separate correlations between thoughts and attitudes were calculated for mood-congruent and mood-incongruent consensus conditions. The correlation was slightly higher ($z = 1.37$, $p < .09$, one-tailed) given mood-incongruent ($r = .45$, $p < .001$) rather than mood-

congruent consensus information (r = .24, p = .06). In a similar vein, based on the three-way interactions of mood, trustworthiness, and argument strength on attitudes and message-related thoughts, separate correlations were calculated for conditions with mood-congruent and mood-incongruent trustworthiness information. While thoughts and attitudes were highly correlated given mood-incongruent trustworthiness (r = .47, p < .001), they were only weakly correlated given mood-congruent trustworthiness (r = .23, p = .07; z = 1.56, p < .06, one-tailed).

We also calculated correlations in doubly mood-congruent conditions (r = .14, p > .45), in mixed-source conditions (r = .30, p < .02), and in doubly mood-incongruent conditions (r = .63, p < .001). As would be expected from the MEM, these results show that the correlation was higher in doubly mood-incongruent conditions than in mixed-source conditions (z = 1.97, p < .025, one-tailed) and in doubly mood-congruent conditions (z = 2.31, p < .02, one-tailed). Although the correlation was higher in mixed-source conditions than in mood-congruent conditions, the difference failed to reach significance (z = 0.76; ns.).

Discussion

The results of this study are clearly in line with hypotheses derived from a mood-congruent expectancies perspective (Ziegler, 2010). As predicted, two three-way interactions showed that incongruent combinations of mood and source consensus status as well as of mood and trustworthiness lead to higher message scrutiny than congruent combinations. First, attitudes and message-related thoughts were affected by argument strength when people in positive mood were presented with an advocacy that was only supported by a minority, and when people in negative mood were presented with an advocacy that was supported by a majority (mood-incongruent consensus conditions). In contrast, attitudes were not affected by argument strength in mood-congruent consensus conditions, that is, when people in positive mood were confronted with a majority-supported advocacy and when people in negative mood were confronted with a minority-supported advocacy. Instead, more positive attitudes

were found in the case of people in positive mood—majority support as compared to people in negative mood—minority support.

Second, attitudes and message-related thoughts were affected by argument strength when an untrustworthy source presented the message to people in positive mood, and when a trustworthy source presented the message to people in negative mood (mood-incongruent trustworthiness conditions). In contrast, attitudes were not affected by argument strength in mood-congruent trustworthiness conditions, that is, when people in positive mood were confronted with a trustworthy source and when people in negative mood were confronted with an untrustworthy source.

Further, as the analyses in terms of the extent of mood (in)congruency showed, the effect of argument strength on attitudes and message-related thoughts increased from doubly mood-congruent source conditions to mixed-source conditions, and from mixed-source conditions to doubly mood-incongruent source conditions. Specifically, when both source characteristics were mood-congruent, individuals in both moods refrained from investing effort in message scrutiny. When both source characteristics were mood-incongruent, individuals in both moods invested substantial amounts of effort in message scrutiny. Intermediate processing effort was found when individuals in either positive or negative mood were confronted with either an untrustworthy majority source or a trustworthy minority source. In sum, these findings are consistent with the MEM (Ziegler, 2010) which essentially holds that processing effort is higher when the valence of mood and the valence of another factor about which information is available to individuals at an early stage of the information processing sequence are incongruent rather than congruent with each other (cf. Heider, 1958).

These findings differ from predictions derived from the cognitive tuning extension of the mood-as-information approach (Schwarz, 1990, 2001). In particular, the results provide no support for the assumption that negative mood leads to effortful message processing regardless of source attributes. Further, they provide no support for the assumption that

individuals in a positive mood process the two source attributes heuristically. They also provide no support for the assumption that positive mood results in processing strategies similar to people with low NC, and that negative mood results in processing strategies similar to people with high NC (Ruys & Stapel, 2008; Sinclair et al., 1994; Ziegler et al., 2002, 2004). Hence, we conclude that these findings are inconsistent with a mood-as-information perspective on the processing strategies of individuals in positive as compared to negative mood. In this respect, it is worth reiterating that the present research allowed for a particularly strong test of the prediction that positive mood leads to heuristic processing. That is, while previous research (Bohner et al., 1992) tested this prediction by varying a single source attribute (i.e., consensus), the present research involved conditions of a trustworthy majority source and an untrustworthy minority source. Accordingly, both a consensus heuristic and a trustworthiness heuristic would have allowed for simple, and similar, heuristic inferences (Darke et al., 1998; Eagly et al., 1978; Martin et al., 2007; McGinnies & Ward, 1980). Nonetheless, no evidence was found indicative of heuristic processing of individuals in a positive mood. Together with previous research regarding the role of source attributes for individuals in different affective states (Bohner et al., 1992; Ziegler, 2010), this suggests that source attributes may not function as heuristic cues for individuals in positive as compared to negative mood.[6] Of course, given the multitude of factors that have been identified to act as heuristic cues under certain circumstances (cf. Petty & Wegener, 1998), it remains possible that future research identifies factors unrelated to the source of a persuasive message which function as heuristic cues in positive (versus negative) mood.

Implications

Aside from this conclusion regarding heuristic processing in positive as compared to negative mood, the present research has a number of further implications. First, the current findings suggest an important caveat in respect of our own previous research regarding the effects of multiple source attributes on message processing (Ziegler et al., 2002, 2004). That

is, valence-incongruent (versus congruent) combinations of two source attributes lead to higher message scrutiny of individuals in neutral, or non-manipulated, mood. When individuals are not in a neutral mood, however, different combinations of two source attributes do not appear to play a role for message processing. Rather, in positive as well as negative mood, mood congruency of source attributes appears to be more important in regard to message processing than source congruency. In particular, even when both source attributes are of the same valence (source congruency) such a combination of two source attributes leads to high processing effort when the valence of these source attributes is mood-incongruent. In short, mood congruency dominates source congruency.

With respect to mood congruency, the present research also adds to the findings by Ziegler (2010). In particular, the current results show that consensus serves a similar function in regard to message processing of individuals in a positive or a negative affective state as likability and honesty (Ziegler, 2010). That is, it appears more congruent with positive (negative) mood to learn that an advocacy is supported by a majority (minority) rather than a minority (majority).

A third implication is based directly on these findings regarding source consensus status. More specifically, the current results add to previous findings regarding majority—minority influence processes which indicate that both majority-supported and minority-supported advocacies may be subjected to more or less extensive message scrutiny (Baker & Petty, 1994; Ziegler et al., 2004). That is, Baker and Petty (1994) found that a counterattitudinal advocacy was processed more effortful when supported by a majority rather than a minority (but see Martin et al., 2007). In the case of a proattitudinal advocacy, in contrast, processing effort was higher in regard to the message of a minority source as compared to a majority source. Ziegler et al. (2004), in comparison, showed that a minority or a majority source advocacy that is neither proattitudinal nor counterattitudinal, but is rather attitudinally neutral, may be processed more or less effortful depending on a second source

attribute (consistency or distinctiveness). Overall, then, these previous studies have identified three moderator variables of message scrutiny pertaining to two classes of persuasion-related variables (cf. Petty & Wegener, 1998). Specifically, these are moderator variables referring to either the message (Baker & Petty, 1994) or the source (Ziegler et al., 2004). The current study adds to these moderating variables a further one that refers to the recipient, that is, an individual's current affective state. That is, a neutral advocacy which is delivered by a minority source is scrutinized more effortful when recipients are in a positive mood rather than a negative mood. In contrast, a neutral advocacy which is delivered by a majority source is scrutinized more effortful when recipients are in a negative mood rather than a positive mood. Future research may well identify further variables which moderate processing effort in regard to a message delivered by majority or minority sources.

Finally, it is worth noting that the present research involved just one specific pair of source attributes. Future research may test whether other pairs of two (or more) source attributes lead to similar consequences regarding message processing of individuals in positive as compared to negative mood (cf. Maddux & Rogers, 1980; Ziegler et al., 2002; 2004). Moreover, it may be interesting to investigate the interplay of mood with one source attribute, such as expertise, and one source-unrelated factor, such as the alleged number of arguments (cf. Petty & Cacioppo, 1984) contained in an upcoming message, for message processing in different affective states.

Conclusion

The present findings add to an emerging line of research regarding the role of mood-based expectancies for information processing of individuals in positive or negative mood (Ziegler, 2010). For instance, Ziegler and Burger (2010) tested the role of mood-based expectancies with respect to the processing of individuating information regarding an ingroup or an outgroup target. In a competitive context involving one ingroup and one outgroup member, they argued and found that it is less congruent with positive (negative) mood to learn

that an outgroup (ingroup) member has won a competition rather than to learn that an ingroup (outgroup) member has won a competition. As a result, individuating information was processed more extensively, and affected target judgments more strongly, in the case of mood-incongruent (versus mood-congruent) target group membership. Hence, we hope that a mood-based expectancies perspective may help elucidate processes involved in various domains of social judgment.

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Footnotes

[1] Similar predictions result from more recent variants of the MAI model (Schwarz, 1990) such as the mood-and-general-knowledge structures model (Bless, 2001; see also Clore, Wyer, Dienes, Gasper, Gohm, & Isbell, 2001). These models assume either that individuals in positive mood rely more on heuristics than individuals in negative mood (Bless, 2001) or that positive mood privileges, and negative mood inhibits, the use of accessible information (Clore et al., 2001).

[2] Differences in degrees of freedom are a result of missing responses of participants in regard to certain measures.

[3] The ANOVA also revealed an argument strength main effect, $t(117) = 3.65$, $p < .01$ and an interaction, $t(117) = -2.24$, $p < .03$, according to which agreement in mixed source conditions was higher given positive (vs. negative) mood, $t(117) = 2.03$, $p < .05$, but similar across moods in doubly mood-incongruent conditions, $t(117) = -1.24$, $p = .22$.

[4] Two participants who did not list any thought were excluded from the thought analyses.

[5] The ANOVA also revealed an argument strength main effect, $t(115) = 2.67$, $p < .01$, and an interaction, $t(115) = -2.07$, $p < .05$, according to which thoughts in doubly mood-congruent conditions tended to be more favorable given positive (vs. negative) mood, $t(115) = 1.70$, $p = .093$, but similar across moods in mixed-source conditions, $t < 1$.

[6] A study by Mackie and Worth (1989) found results in line with heuristic processing of source expertise in positive mood in comparison to neutral (rather than negative) mood.

Table 1

Hypotheses on persuasion processes and statistical effects derived from different approaches regarding mood and persuasion

	Theoretical basis for predictions		
	Mood as information	Mood as information & Source congruency	Mood congruency
	Predictions regarding persuasion processes		
positive mood	- heuristic processing of source attributes	- effortful message processing given source incongruence - heuristic processing of source attributes given source congruence	- effortful message processing given mood-incongruent source attributes
negative mood	- effortful message processing irrespective of source attributes	- effortful message processing irrespective of source attributes	- effortful message processing given mood-incongruent source attributes
	Predictions regarding statistical effects in ANOVA		
	- interaction of mood and argument strength - interaction of mood and consensus - interaction of mood and trustworthiness	- interaction of mood, consensus, trustworthiness, and argument strength	- interaction of mood, consensus, and argument strength - interaction of mood, trustworthiness, and argument strength

Table 2

Mean scores on the attitude index as a function of recipient mood, consensus, trustworthiness, and argument strength

Mood	Arguments		Majority Source		Minority Source	
			Trustworthy Source	Untrustworthy Source	Trustworthy Source	Untrustworthy Source
Positive	Strong	M	5.22	5.76	5.85	5.67
		SD	1.09	1.10	0.65	0.78
	Weak	M	5.76	5.15	4.75	4.19
		SD	0.81	0.58	0.96	0.94
Negative	Strong	M	6.04	5.44	4.92	5.11
		SD	0.51	1.32	1.44	1.03
	Weak	M	4.70	4.92	4.10	5.05
		SD	1.08	1.62	1.37	1.13

Note. Scores could range from 1 to 7; higher numbers indicate greater acceptance of the position advocated in the persuasive message.

Table 3

Favorability of message-related thoughts as a function of recipient mood, consensus, trustworthiness, and argument strength

Mood	Arguments		Majority Source		Minority Source	
			Trustworthy Source	Untrustworthy Source	Ttrustworthy Source	Untrustworthy Source
Positive	Strong	M	0.38	0.11	0.14	0.44
		SD	1.19	0.60	0.90	1.24
	Weak	M	0.57	-0.50	-0.67	-1.13
		SD	1.72	1.60	1.12	1.36
Negative	Strong	M	0.78	0.00	0.67	-0.44
		SD	1.20	1.12	1.58	1.01
	Weak	M	-0.75	-0.43	0.13	-0.29
		SD	1.49	2.15	1.81	1.38

Note. Higher numbers indicate more favorable thinking about the advocated position.

Figure caption

UUFigure 1. Dependent measures as a function of recipient mood, consensus, and argument strength. Error bars represent SEs. Top panel: Attitudes. Bottom panel: Thought valence.

Figure 2. Dependent measures as a function of recipient mood, source trustworthiness, and argument strength. Error bars represent SEs. Top panel: Attitudes. Bottom panel: Thought valence.

Figure 1

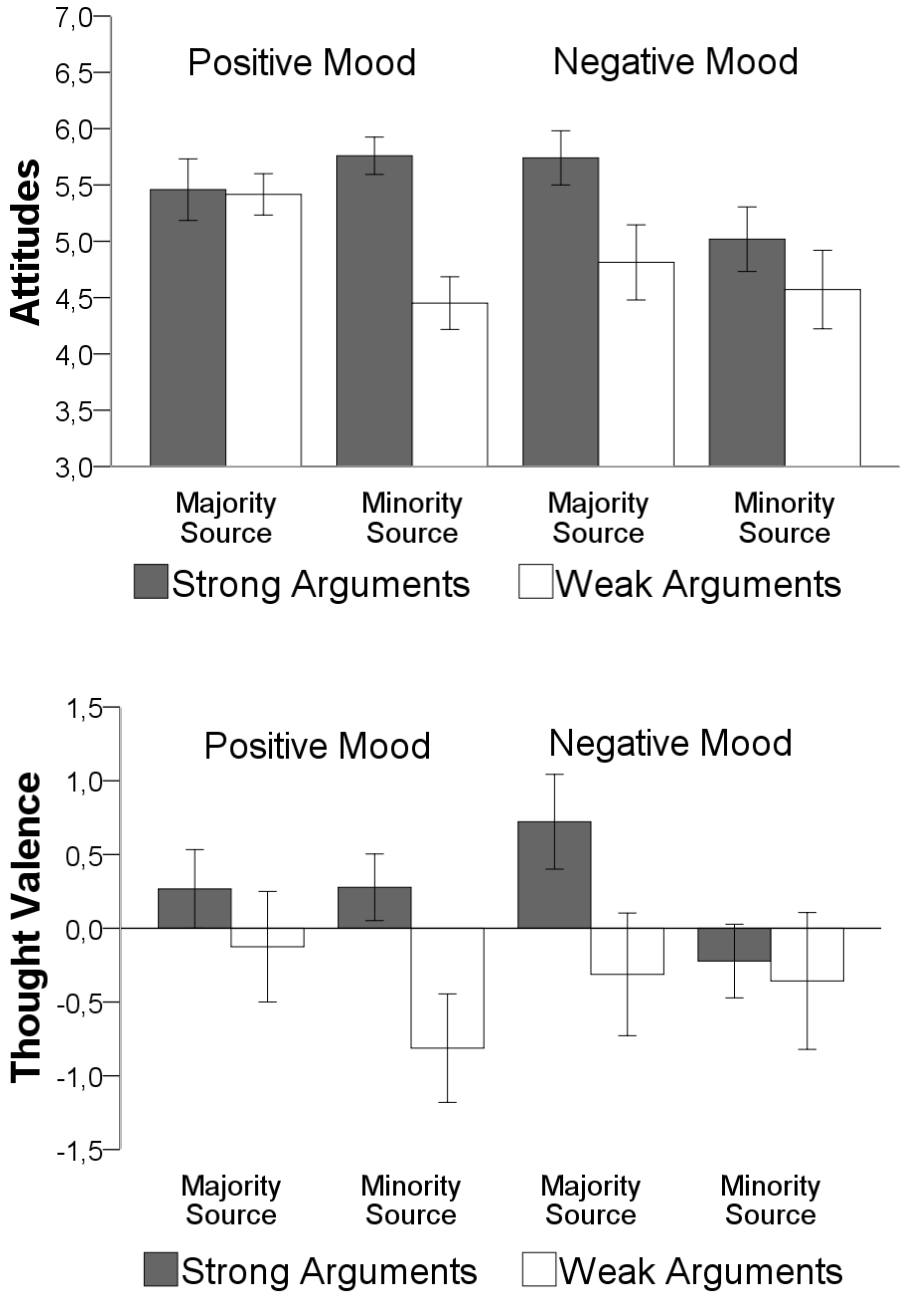
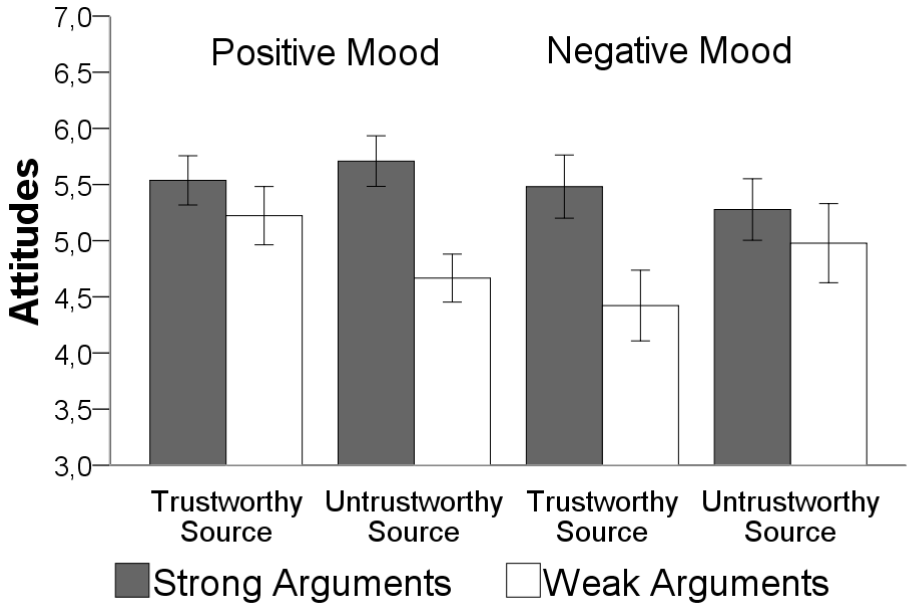
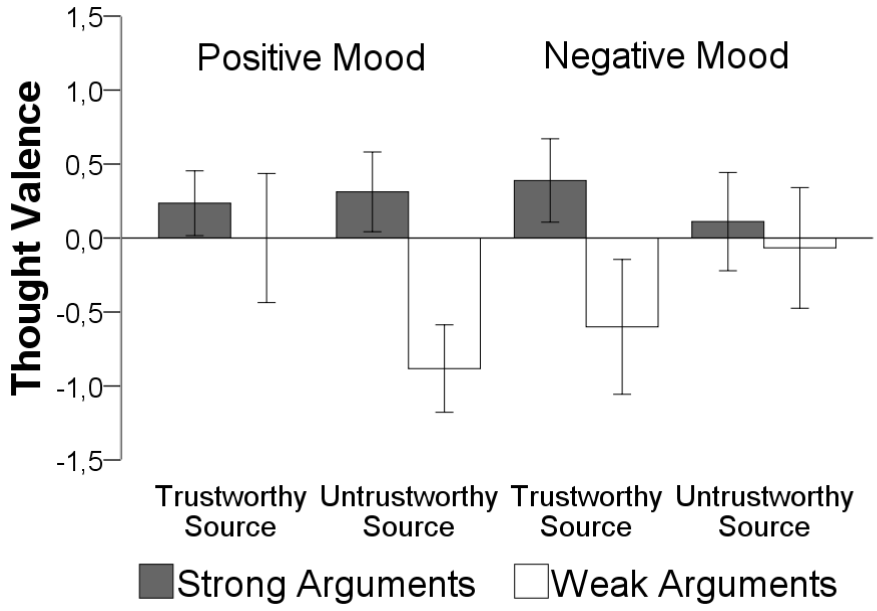

Positive Mood
Negative Mood
Attitudes
7,0
6,5
6,0
5,5
5,0
4,5
4,0
3,5
3,0
Majority Source
Minority Source
Majority Source
Minority Source
Strong Arguments
Weak Arguments
Positive Mood
Negative Mood
Thought Valence
1,5
1,0
0,5
0,0
-0,5
-1,0
-1,5
Majority Source
Minority Source
Majority Source
Minority Source
Strong Arguments
Weak Arguments

Figure 2


Positive Mood
Negative Mood
Attitudes
7,0
6,5
6,0
5,5
5,0
4,5
4,0
3,5
3,0
Trustworthy Source
Untrustworthy Source
Trustworthy Source
Untrustworthy Source
Strong Arguments
Weak Arguments


Positive Mood
Negative Mood
Thought Valence
1,5
1,0
0,5
0,0
-0,5
-1,0
-1,5
Trustworthy Source
Untrustworthy Source
Trustworthy Source
Untrustworthy Source
Strong Arguments
Weak Arguments