


# I Am Aware of My Inconsistencies but Can Tolerate Them: The Effect of High Quality Listening on Speakers' Attitude Ambivalence

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## Abstract

We examined how listeners characterized by empathy and a non-judgmental approach affect speakers' attitude structure. We hypothesized that high quality listening decreases speakers' social anxiety, which in turn reduces defensive processing. This reduction in defensive processing was hypothesized to result in an awareness of contradictions (increased objective-attitude ambivalence), and decreased attitude extremity. Moreover, we hypothesized that experiencing high quality listening would enable speakers to *tolerate* contradictory responses, such that listening would attenuate the association between objective- and subjective-attitude ambivalence. We obtained consistent support for our hypotheses across four laboratory experiments that manipulated listening experience in different ways on a range of attitude topics. The effects of listening on objective-attitude ambivalence were stronger for higher dispositional social anxiety and initial objective-attitude ambivalence (Study 4). Overall, the results suggest that speakers' attitude structure can be changed by a heretofore unexplored interpersonal variable: merely providing high quality listening.

## Keywords

high quality listening, social anxiety, defensive processing, attitude ambivalence, attitude extremity

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People often attempt to change the attitude of others (their interlocutors) by putting forward counterarguments (Petty, Ostrom, & Brock, 1981). However, hearing counterarguments is not always useful, because the receiver may feel this constitutes an infringement on the right to have such an attitude. This is perceived as threatening (Brehm, 1972) and can prompt the receiver to process the information in a defensive manner (Kunda, 1990). The outcome of such defensive processing may be a bolstering of the initial attitude (Briñol, Rucker, Tormala, & Petty, 2004; Lydon, Zanna, & Ross, 1988), which is opposite to the intention of the person offering the counterargument (*boomerang effect*; Heller, Pallak, & Picek, 1973).

People may be more effective in changing the attitudes of their interlocutors by relying on techniques that create mental states leading to a reconsideration of the original attitude. Studies have found that more profound attitude change occurs when the motivation for change comes from within (Aronson, 1999). In this work, we examined whether listeners engaged in high quality listening, who do not provide any counterarguments, can nevertheless make their interlocutors reconsider their initial attitude.

Listening is a multidimensional construct that has attention, understanding, and relational components (Bodie, 2012). The relational features include being non-judgmental,

empathic, and respectful (Rogers & Roethlisberger, 1991). We term this type of listening *high quality listening*. Rogers (1951) described the effects of high quality listening on the speaker as follows:

In this atmosphere of safety, protection, and acceptance, the firm boundaries of self-organization *relax* [emphasis added]. There is no longer the firm, tight gestalt which is characteristic of every organization under threat, but a looser, more uncertain configuration. He begins to explore his perceptual field more and more fully. He discovers faulty generalizations, but his self-structure is now sufficiently relaxed so that he can consider the complex and *contradictory* [emphasis added] experiences upon which they are based. He discovers experiences of which he has never been aware, which are deeply, contradictory to the perception he has had of himself . . . (p. 193)

Acknowledging an attitude in the presence of others may be affected by self-presentational concerns associated with

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the need to obtain approval and avoid disapproval (Friend & Gilbert, 1973). They increase social anxiety, which is defined as “resulting from the prospect or presence of personal evaluation in real or imagined social situations” (Schlenker & Leary, 1982, p. 642). The level of social anxiety experienced by people depends on the perceived discrepancy between the reactions of others and the standard a person sets for himself (Leary, 1983). However, social anxiety should be reduced when the listener conveys acceptance and a non-judgmental approach toward the speaker (Wenzel & Kashdan, 2008). Therefore, we hypothesize as follows:

**Hypothesis 1:** Experiencing high quality listening should decrease a speaker’s social anxiety.

A speaker who feels free of self-presentation threats should be able to introspect about an attitude in a less defensive manner. In contrast, the presence of a threat to the self can elicit defensive processing (Kunda, 1990). When people engage in defensive processing, they resist, ignore, or downplay the importance of the threatening information (Briñol, Petty, Gallardo, & DeMarree, 2007; Knowles & Linn, 2004). This type of processing usually results in a more favorable elaboration of the arguments supporting the initial attitudes than arguments opposing them (Lieberman & Chaiken, 1992). However, partners in an exchange who are attentive and understanding make their interlocutor feel open and supported, thereby decreasing defensive reactions to failure (Caprariello & Reis, 2011) as well as defensive self-esteem maintenance processes (Crocker & Park, 2004). Note that the listener does not necessarily have to agree with the speaker’s point of view but rather conveys a feeling of acceptance to the speaker. When people feel accepted intrinsically for who they are, they express less defensive bias when forming evaluations than when they feel that their acceptance is contingent, in particular within the context of a complex, multifaceted presentation of the self (Schimmel, Arndt, Pyszczynski, & Greenberg, 2001). Moreover, the conviction that one has been listened to and clearly understood by one’s opponent can lead to a reduction of defensive adherence to one’s initial position, and increased willingness to reach an agreement (Johnson, 1971). Therefore, we posited that high quality listening should make the speaker less socially anxious, which, in turn, should result in less defensive processing of attitudes.

**Hypothesis 2:** Experiencing high quality listening should reduce speakers’ defensive processing by decreasing social anxiety.

Defensive processing prompts people to search for information that supports their initial attitudes, and reject, ignore, or downplay the seriousness of relevant issues to avoid mental imbalance and protect the self (Frey, 1986; Jemmott, Ditto, & Croyle, 1986). In contrast, when the self is affirmed,

people are more open-minded (Sherman & Cohen, 2002) and are capable of evaluating information objectively that would otherwise evoke a defensive reaction (Correll, Spencer, & Zanna, 2004). Similar to self-affirmation, a safe space for a speaker facilitates the emergence of contradictions and paradoxes (Snelling, 2005). Thus, by reducing defensiveness, high quality listening may enable speakers to become more aware of opposite viewpoints. Specifically, awareness of opposite viewpoints should be manifested in *objective-attitude ambivalence*. Objective-attitude ambivalence refers to the coexistence of positive and negative thoughts and feelings toward an attitude object (Fabrigar, MacDonald, & Wegener, 2005; Kaplan, 1972).

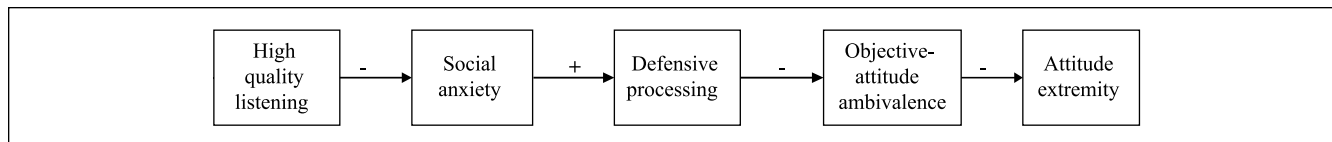
**Hypothesis 3:** Experiencing high quality listening should increase a speaker’s objective-attitude ambivalence by decreasing social anxiety and defensiveness.

An increase in objective-attitude ambivalence may increase *subjective-attitude ambivalence* (Newby-Clark, McGregor, & Zanna, 2002), which is defined as an experience of evaluative conflict, including a sense of being conflicted, confused, being torn, and having mixed feelings with regard to the attitude object (Priester & Petty, 1996; Thompson, Zanna, & Griffin, 1995). This negative state often motivates people to reduce their inconsistencies (Briñol, Petty, & Wheeler, 2006; Clark, Wegener, & Fabrigar, 2008).

However, we hypothesize that inconsistencies are experienced as less aversive when they are expressed in front of an empathic, non-judgmental listener. A high quality listener conveys acceptance of any point of view made by the speaker, even if inconsistent. Under such conditions, speakers feel safe psychologically (Castro, Kluger, & Itzchakov, 2016; Itzchakov, Castro, & Kluger, 2016), and should be willing to accept their ambivalent attitude as legitimate without feeling torn and without discomfort. In sum, we hypothesize that in addition to increasing awareness of opposite cognitions and emotions, high quality listening should make speakers more willing to tolerate their own inconsistencies toward the attitude object.

**Hypothesis 4:** Experiencing high quality listening should moderate the association between objective and subjective ambivalence, such that the better the listening the lower the association.

The increase in objective-attitude ambivalence should decrease *attitude extremity*, that is, the extent to which the attitude deviates from neutrality (Krosnick & Petty, 1995). This hypothesis is consistent with models of attitude formation (Fabrigar et al., 2005; Fisbein & Ajzen, 1975) and empirical findings (Priester & Petty, 1996). Attitude extremity is known to be reduced by listening in conflict situations. Specifically, members of disempowered groups reported a less negative and less one-sided attitude toward the dominant



**Figure 1.** Path model of the effect of high quality listening on attitude extremity.

group when members of the dominant group actively listened to them (Bruneau & Saxe, 2012). In addition, possessing strong attitudes functions as a self-defense (Maio & Haddock, 2010). Self-defense should not occur when an attitude is expressed in the presence of a high quality listener. Hence, we hypothesize that high quality listening decreases speaker's attitude extremity via increasing objective-attitude ambivalence.

**Hypothesis 5:** Experiencing high quality listening should decrease attitude extremity by increasing objective-attitude ambivalence.

We summarize our hypotheses in a multistep mediation model (see Figure 1).

Several aspects of our model are novel. First, our model postulates that attitude structure (ambivalence and extremity) can change in the absence of persuasion attempt. That is, our model suggests that persuasive attempts can lead to not only attitude bolstering but also *low* quality listening. Studies have documented the role of defensive processing in attitude bolstering solely in the context of persuasion attempts (Briñol et al., 2007; Harris & Napper, 2005). In contrast, our model considers that defensive processing can affect attitudes in the absence of persuasion attempts as well. Finally, our model suggests that high quality listening should attenuate the association between *objective-* and *subjective-*attitude ambivalence through the reduction in defensiveness.

## The Present Research

We conducted four laboratory experiments. In Study 1, we asked business undergraduates to express their attitude toward having a future managerial position to a confederate exhibiting high, medium, or low quality listening. In Study 2, we asked students to read a short article on a political issue and share their attitude toward that issue either with a trained listener or with an untrained listener. In Study 3, we asked students to discuss their attitude with regard to either an ostensible university requirement or a possible tax on junk food with either an undistracted listener or a listener distracted by flickering computer screens. In Study 4, we replicated the procedure of Study 3 and tested two boundary conditions: preexisting ambivalence and dispositional social anxiety. Finally, we report a meta-analysis assessing the degree of support for our hypotheses across these studies.<sup>1</sup>

## Study 1

### Method

**Participants.** We recruited 114 first-year undergraduate students from the School of Business Administration at the Hebrew University of Jerusalem to participate in exchange for course credit,  $M_{\text{age}} = 24.6$ ,  $SD = 1.9$ . This sample size has a power of .70 to detect a medium effect size, Cohen's  $f = .25$ . Because we aimed to obtain very powerful effects, we deemed this sample size sufficient.

**Procedure.** We asked all participants to talk with a confederate for 12 min about how suitable they would be for a managerial role in the future. We randomly assigned participants to three listening quality conditions: high, medium, or low. In the high-quality-listening condition, the confederates were trained in listening (see Supplementary Material): four certified coaches (people who help their clients achieve a specific personal or professional goal) and one third-year student from the social work department (three females, two males,  $M_{\text{age}} = 30.4$ ,  $SD = 2.65$ ). Coaches undergo a listening-skill development program of 70 academic hours as part of their training. The development of listening skills includes learning efficient communication patterns that help create a feeling of closeness and intimacy with the client. As part of their training, coaches also do 25 academic hours of practical training, which includes listening to clients. Social work students take five to six interpersonal communication courses. In addition, in their second and third years, they do a 16- and 21-hr-a-week practicum, respectively. A major part of the practical training is listening to clients. We instructed these confederates to listen as they had been trained to listen. To avoid demand issues, we told all confederates that the goal of the study was to learn about the aspirations of undergraduates at the business school, thus making them blind to the real goal of the study. There was no significant difference in perceived listening between the trained listeners,  $F(4, 44) = 0.40$ ,  $\eta_p^2 = .03$ , 95% confidence interval (CI) = [0.00, 0.10],  $p = .80$ . In the medium-quality-listening condition, we instructed three student confederates (two females, one male,  $M_{\text{age}} = 24.8$ ,  $SD = 2.87$ ) to listen as they usually listened. In the low-quality-listening condition (two females, one male,  $M_{\text{age}} = 25.6$ ,  $SD = 1.52$ ), we instructed confederates to act distracted. After the 12-min conversation, we asked the participants to fill out computerized questionnaires containing our dependent variables (DVs), and then we debriefed them.

**Measures.** Because we were interested in the *experience* of being listened to and its effects on the speaker, we only used self-reports rather than objective measures such as memory or non-verbal cues. Previous work found no association between *speakers'* perception of listening quality and *listeners'* perception,  $r = -.14$ , or behavioral measures,  $r = -.07$  (Bodie, Jones, Vickery, Hatcher, & Cannava, 2014).

**Listening experience.** We assessed speakers' listening experience through their responses to seven statements. The statements were rated on a 7-point Likert-type scale anchored at 1 = *completely disagree* and 7 = *completely agree* (Itzhakov & Kluger, 2015). Sample items are as follows: "The person I interacted with listened to me" and "The person I interacted with made an effort to understand what I was saying,"  $\alpha = .97$ .

**Social anxiety.** The seven-item State Social Anxiety Scale (Kashdan & Steger, 2006) assesses feelings of social anxiety at a particular time. The items were adapted to fit the experimental setting and rated on a 7-point Likert-type scale anchored at 1 = *completely disagree* and 7 = *completely agree*,  $\alpha = .91$ .

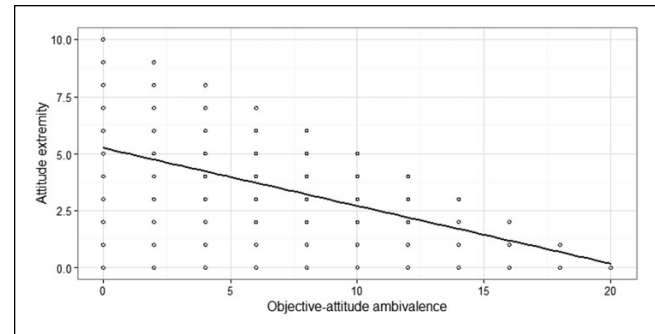
**Objective-attitude ambivalence.** We used Kaplan's (1972) split semantic differential scale.<sup>2</sup> This measure includes pairs of items, one positive and one negative, asking about cognitive or emotional aspects of the attitude object. We used two pairs of items, one asking about cognitions and one about emotions. Examples of positive items are "Ignoring your *negative* thoughts [emotions] about your compatibility with a managerial position, and considering only your *positive* thoughts [emotions], how *positive* is your attitude towards your compatibility?" We asked respondents to rate positive items on a scale ranging from 0 to 10,  $\alpha = .93$ , and negative items on a scale ranging from -10 to 0,  $\alpha = .91$ . Following Kaplan, we calculated attitude ambivalence as follows:

$$\text{Positive} + |\text{Negative}| - |\Sigma(\text{Positive} + \text{Negative})|.$$

This formula captures the extent to which a person has both negative and positive attitudes simultaneously while controlling for attitude valence. We averaged the ambivalence score of the cognitive pair with the emotional pair, so the scores ranged from 0 to 20. Hence, the higher the score, the higher the objective-attitude ambivalence. This measure differentiates ambivalence from indifference.

**Attitude extremity.** Following Kaplan (1972), we calculated attitude extremity, which he termed *polarization*, as  $|\text{positive} + \text{negative}|$ . We averaged the ratings of the cognitive and emotional pairs, resulting in a scale ranging from 0 to 10. Higher scores indicate more extreme attitude.

It is noteworthy that although attitude ambivalence and extremity are mathematically correlated, when using Kaplan's formulas, an increase in ambivalence does not necessarily



**Figure 2.** A scatterplot of all theoretically possible combinations of objective-ambivalence scores and extremity scores, along with a regression line reflecting a correlation of  $-.50$ .

entail a decrease in extremity and vice versa (see Figure 2).<sup>3</sup> The same objective ambivalence may reflect different levels of extremity,<sup>4</sup> and the same level of extremity may reflect two levels of objective ambivalence. For example, if a person assigns a  $-5$  to a negative item and a  $5$  to a positive item, the attitude ambivalence is 10, whereas the attitude extremity is 0. If a person assigns a  $-7$  to a negative item and a  $7$  to a positive item, the attitude ambivalence is 14, whereas the attitude extremity is 0. Similarly, an extremity score of 8 may reflect both a positive score of 8 and a negative score of 0, or a positive score of 10 and a negative score of  $-2$ . However, in the former case, the objective ambivalence will be 0, and in the latter, it will be 4.

**Attitude valence.** Consistent with Kaplan, we also calculated attitude valence which reflects the extent to which the attitude is positive or negative (positive + negative), although our model does not pertain to this variable.

## Results and Discussion

Table 1 presents the means and *SDs* of the variables for Study 1. Participants in the high-quality-listening condition experienced the highest levels of listening, whereas participants in the low-quality-listening condition experienced the lowest levels,  $F(2, 216) = 173.15$ ,  $\eta_p^2 = .62$ , 95% CI = [0.54, 0.67]. Thus, the listening manipulation was successful. The experimental effects were consistent with our hypothesis. Specifically, social anxiety was lowest in the high-quality-listening condition and highest in the low-quality-listening condition,  $F(2, 216) = 19.10$ ,  $\eta_p^2 = .16$ , 95% CI = [0.07, 0.25]. Second, objective-attitude ambivalence was highest in the high-quality-listening condition and lowest in the low-quality-listening condition,  $F(2, 216) = 12.74$ ,  $\eta_p^2 = .11$ , 95% CI = [0.04, 0.18]. Attitude extremity was lowest in the high quality condition and highest in the low-quality-listening condition,  $F(2, 216) = 7.56$ ,  $\eta_p^2 = .07$ , 95% CI = [0.01, 0.13]; however, there was no significant difference between the high- and medium-quality-listening conditions,  $t(74) = 0.77$ ,  $p = .45$ . Finally, participants

**Table 1.** Study 1: Means and SDs by Listening Conditions.

Variable	Listening condition		
	High quality	Medium quality	Low quality
Listening experience			
M	5.80	5.16	1.70
SD	1.56	1.37	1.89
Social anxiety			
M	2.07	2.62	3.89
SD	1.15	1.36	1.27
Negative items			
M	-8.29	-6.62 <sup>a</sup>	-5.77 <sup>a</sup>
SD	1.75	1.94	3.23
Positive items			
M	5.32 <sup>a</sup>	4.39 <sup>a</sup>	5.21 <sup>a</sup>
SD	3.11	2.03	2.63
Objective-attitude ambivalence			
M	10.93	8.18	6.03
SD	6.00	3.64	3.25
Attitude extremity			
M	3.33 <sup>a</sup>	2.83 <sup>a</sup>	4.95
SD	3.04	2.64	2.58
Attitude valence			
M	-2.98 <sup>a</sup>	-2.22 <sup>a</sup>	-0.57
SD	3.40	3.18	5.63

Note. Means within a row that share a superscript do not differ significantly according to the least significant difference (LSD) test.

in the high-quality-listening condition became more negative toward becoming a manager than participants in the medium,  $t(78) = -4.04$ , 95% CI = [-2.49, -0.84],  $d = -0.91$ , and low,  $t(72) = -4.26$ , 95% CI = [-3.70, -1.33],  $d = -1.00$ , listening conditions. There was no difference on the positive items across listening conditions,  $F(2, 113) = 1.40$ , 95% CI = [0.00, 11.79],  $\eta_p^2 = .02$ .

**Mediation analysis.**<sup>5</sup> To test for mediation, in this study and all the following studies, we used the bootstrapping procedure recommended by Preacher and Hayes (2008) with a CI of 5,000 bootstrapped samples. Given our categorical independent variable, we created two dummy variables for the experimental condition and conducted two separate mediations with each of the dummy variables as the independent variable. Figure 3a presents the mediation model with the dummy variable for high quality listening in comparison with the medium and low quality listening (high quality = 1, medium quality = 0, low quality = 0). The indirect effects of high quality listening on objective-attitude ambivalence,  $\beta = .10$ , 95% CI = [0.02, 0.20], and on attitude extremity,  $\beta = -.23$ , 95% CI = [-0.43, -0.06], were significant, whereas the direct effects of high quality listening on objective-attitude ambivalence,  $\beta = .18$ , 95% CI = [-0.03, 0.40], and on attitude extremity,  $\beta = .09$ , 95% CI = [-0.03, 0.21], were not significant, suggesting full mediation.

Figure 3b presents the mediation model with the dummy variable for low quality listening in comparison with medium and high quality listening (high quality = 0, medium quality = 0, low quality = 1). The indirect effect of low quality (in comparison with high and medium quality listening) on objective-attitude ambivalence was significant,  $\beta = -.12$ , 95% CI = [-0.22, -0.03,]; however, the direct effect was also significant,  $\beta = -.15$ , 95% CI = [-0.32, 0.00], indicating partial mediation. The indirect effect of low quality listening on attitude extremity was significant,  $\beta = .18$ , 95% CI = [0.04, 0.32], whereas the direct effect was not,  $\beta = .06$ , 95% CI = [-0.08, 0.21], indicating full mediation. These results indicate that social anxiety mediated the effect of high quality listening on objective-attitude ambivalence, and that both social anxiety and objective-attitude ambivalence mediated the effect of high quality listening on attitude extremity.

The model fit the data,  $\chi^2(3) = 3.82$ ,  $p = .28$ , comparative fit index (CFI) = .99, root mean square error of approximation (RMSEA) = .05, 90% CI = [0.00, 0.17].<sup>6</sup> When we compared our hypothesized model with an alternative model where attitude extremity predicted objective-attitude ambivalence (see Supplementary Material), our hypothesized model exhibited better fit than the alternative model (cf. Study 1),  $AIC_{\text{hypothesized model}}$  (Akaike information criterion) = 18.35,  $AIC_{\text{alternative model}} = 21.50$ .

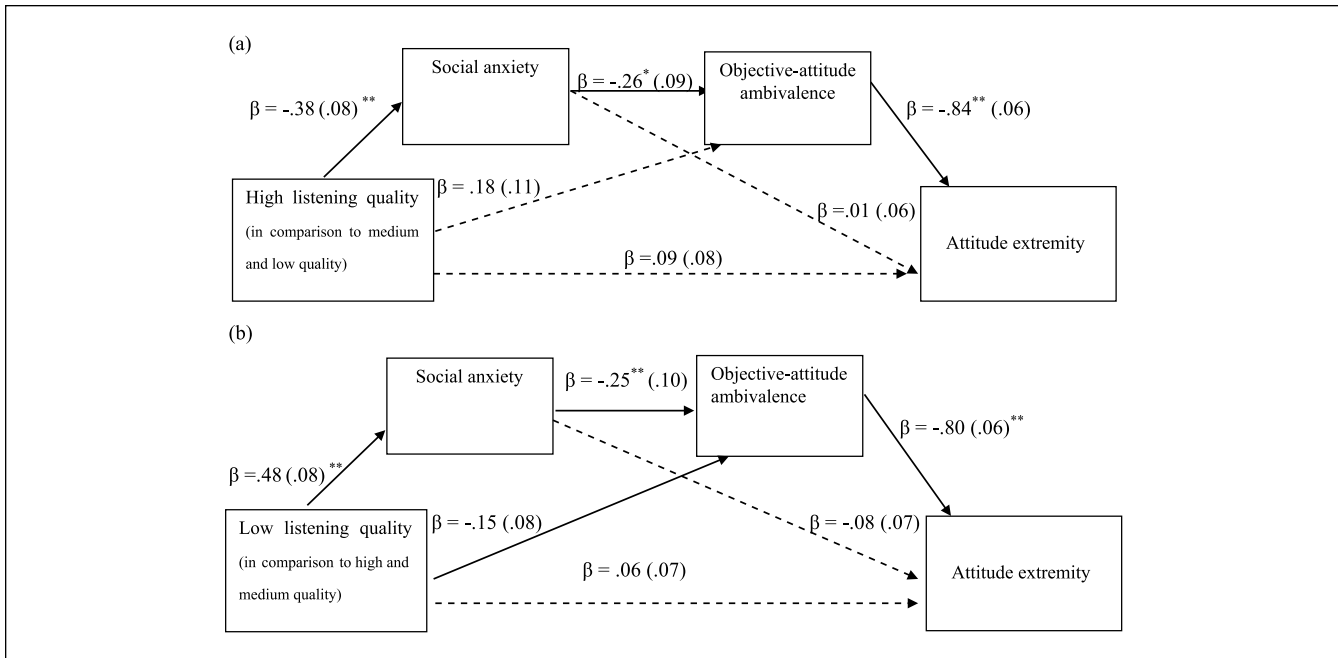
Finally, it is worth noting that participants in the high-quality-listening condition reported the lowest attitude valence toward becoming a manager, whereas the participants in the low-quality-listening condition reported the most positive valence,  $F(2, 111) = 3.28$ ,  $\eta_p^2 = .06$ , 95% CI = [0.01, 0.14]. This is consistent with the notion that feeling understood and validated by partners may open the self to information about shortcomings (Caprariello & Reis, 2011; Kumashiro & Sedikides, 2005), and undesired aspects of the self (Rogers & Roethlisberger, 1991). That is, in the presence of a high quality listener, business administration students thinking about becoming managers allow themselves to be in touch with their inadequacy.

## Study 2

Our goals in Study 2 were to (a) replicate the results of Study 1, (b) increase the generalizability of our findings by testing our hypotheses on attitudes in a different context (political attitudes), and (c) test high quality listening as a moderator for the association between *objective*- and *subjective*-attitude ambivalence.

## Method

**Participants.** We recruited 98 first-year undergraduates as in Study 1,  $M_{\text{age}} = 24.4$ ,  $SD = 2.3$ . To obtain 80% power to detect a medium effect size, we used only two experimental groups (high and medium quality listening). This sample size



**Figure 3.** Standardized estimates of multistep mediation for Study 1, standard errors in parentheses.

\* $p < .05$ . \*\* $p < .01$ .

provides a power of .79 to detect a moderate effect size,  $d = 0.50$ . Again, we expected stronger effects.

**Procedure.** First, participants read a short article about a decision by the Israeli Supreme Court ordering the Israel Defense Forces to return the bodies of Palestinians who committed a suicide attack to their families. After reading the article, participants filled out a brief questionnaire about their political attitudes (e.g., “Which party did you vote for in the last elections?”). Afterward, we instructed participants to sit facing a confederate interlocutor and to talk about their attitude toward the article for 15 min. As in Study 1, to avoid demand issues, we told all confederates that the study goal was to investigate students’ views of political issues. We randomly assigned participants to either the high-quality-listening (coded as 1) or the medium-quality-listening (coded as 0) condition. We used different confederates than in Study 1. In the high-quality-listening condition, the confederates were three third-year students from the social work department (one female, two males,  $M_{\text{age}} = 26.9$ ,  $SD = 1.26$ ). In the medium-quality-listening condition, we used three undergraduate students (one female, two males,  $M_{\text{age}} = 25.44$ ,  $SD = 1.88$ ). After the 15-min conversation, we asked the participants to fill out questionnaires containing a manipulation check and the dependent variables, and then debriefed them.

#### Measures

**Political attitude.** We asked the participants to rate their political attitude on the following items, (a) “What is your political orientation?” and (b) “When it comes to national security what policy do you support?” on a scale ranging

from 0 = *extreme right*, 5 = *neutral*, to 10 = *extreme left*. We averaged these scores to yield a measure of political attitudes,  $\alpha = .85$ . Participants reported, on average, moderate political attitudes,  $M = 5.50$ ,  $SD = 4.33$ .

**Perceived listener’s political attitude.** We asked participants to rate their perception of the *listener’s* political attitude on a scale ranging from 0 = *extreme left* to 100 = *extreme right*. On average, the participants perceived their listener’s political attitude as relatively moderate,  $M = 45.9$ ,  $SD = 24.2$ . The listening condition did not moderate the association between participants’ and listeners’ political attitude,  $\Delta R^2 = .02$ ,  $\Delta F = 1.18$ ,  $p = .28$ .

**Listening experience, social anxiety, objective-attitude ambivalence, and attitude extremity.** We used the same measures as in Study 1: manipulation check,  $\alpha = .90$ ; social anxiety,  $\alpha = .85$ ; and two pairs of attitude items,  $\alpha_{\text{negative}} = .95$  and  $\alpha_{\text{positive}} = .91$ , to measure objective ambivalence and attitude extremity.

**Subjective-attitude ambivalence.** As in previous research (e.g., Priester & Petty, 1996), we assessed subjective-attitude ambivalence by directly asking participants to report the extent to which they felt (a) indecision, (b) confusion, and (c) a conflict regarding their attitude (e.g., “I feel conflicted regarding my attitude towards returning bodies”),  $\alpha = .90$ .

#### Results and Discussion

Table 2 presents the means and  $SD$ s of the variables used in Study 2. Participants in the high-quality-listening condition experienced better listening than participants in

**Table 2.** Study 2: Means and SDs by Listening Conditions.

Variable	Listening condition	
	High quality	Medium quality
Listening experience		
M	6.41	5.37
SD	0.98	1.04
Social anxiety		
M	1.86	3.09
SD	0.86	1.87
Negative items		
M	-5.87	-4.21
SD	3.52	3.24
Positive items		
M	4.76	3.92
SD	2.37	2.45
Objective-attitude ambivalence		
M	8.47	5.47
SD	5.84	4.90
Subjective ambivalence		
M	3.90	4.88
SD	2.10	2.73
Attitude extremity		
M	2.21	3.33
SD	2.19	2.80
Attitude valence		
M	-1.11	-0.29
SD	2.97	3.11

the medium-quality-listening condition,  $t(96) = 5.08$ ,  $d = 1.03$ , 95% CI = [0.61, 1.45], indicating that the manipulation was effective. Consistent with our hypothesis, participants in the high-quality-listening condition reported lower levels of social anxiety,  $t(96) = -4.22$ ,  $d = -0.85$ , 95% CI = [-1.81, -0.65]; higher levels of objective-attitude ambivalence,  $t(96) = 2.67$ ,  $d = 0.56$ , 95% CI = [0.83, 5.16]; and lower levels of attitude extremity,  $t(96) = -2.20$ ,  $d = -0.48$ , 95% CI = [-2.13, -0.11]. Note that participants in the high-quality-listening condition became simultaneously more negative,  $t(96) = -2.42$ , 95% CI = [-0.12, 1.81],  $d = -0.49$ , and more positive,  $t(96) = 1.72$ , 95% CI = [-0.13, 1.80],  $d = 0.36$ , regarding returning bodies. Finally, the listening conditions did not affect attitude valence,  $t(96) = -1.32$ , 95% CI = [-2.04, 0.39],  $d = -0.26$ .

**Mediation analysis.** The indirect effect of the listening manipulation on objective-attitude ambivalence was significant,  $\beta = .10$ , 95% CI = [0.03, 0.18,], whereas the direct effect was not,  $\beta = .18$ , 95% CI = [-0.02, 0.38,] (see Figure 4), indicating full mediation. The indirect effect of the listening manipulation on attitude extremity was significant,  $\beta = -.16$ , 95% CI = [-0.29, -0.04], whereas the direct effect was not,  $\beta = -.03$ , 95% CI = [-0.19, 0.13,], indicating full mediation. Moreover, the model fit the data,  $\chi^2(3) = 4.60$ ,  $p = .21$ , CFI =

.95, RMSEA = .11, 90% CI = [0.00, 0.26], and the hypothesized model was better than the alternative model (cf. Study 1),  $AIC_{\text{hypothesized model}} = 29.6$ ,  $AIC_{\text{alternative model}} = 34.5$ .

Finally, the listening manipulation moderated the association between objective- and subjective-attitude ambivalence. Specifically, in the high-quality-listening condition, objective ambivalence was not significantly correlated with subjective ambivalence,  $r = .14$ ,  $p = .33$ . In contrast, in the medium-quality-listening condition, these variables were positively correlated,  $r = .52$ ,  $p < .01$ . These two correlations were significantly different from each other, according to a Hotelling  $t$  test for correlated correlation,  $Z = -2.09$ ,  $p = .03$ . Finally, participants in the high-quality-listening condition reported lower subjective ambivalence,  $t(96) = -1.99$ ,  $d = -0.40$ , 95% CI = [-0.80, -0.01].

In Study 2, we replicated the results of Study 1 on a different attitude topic. In addition, we showed that although high quality listening increases objective-attitude ambivalence, this increase is not accompanied by an increase in subjective-attitude ambivalence. However, the listening manipulation in these studies relied on trained listeners. Thus, although the manipulation checks were consistent with our expectations, the trained listeners could have differed from the medium quality listeners on other, unknown, variables. Thus, in Study 3, we sought to replicate the above findings by using a manipulation independent of the listener. We used novel attitude topics to provide additional evidence for the generalizability of our results.

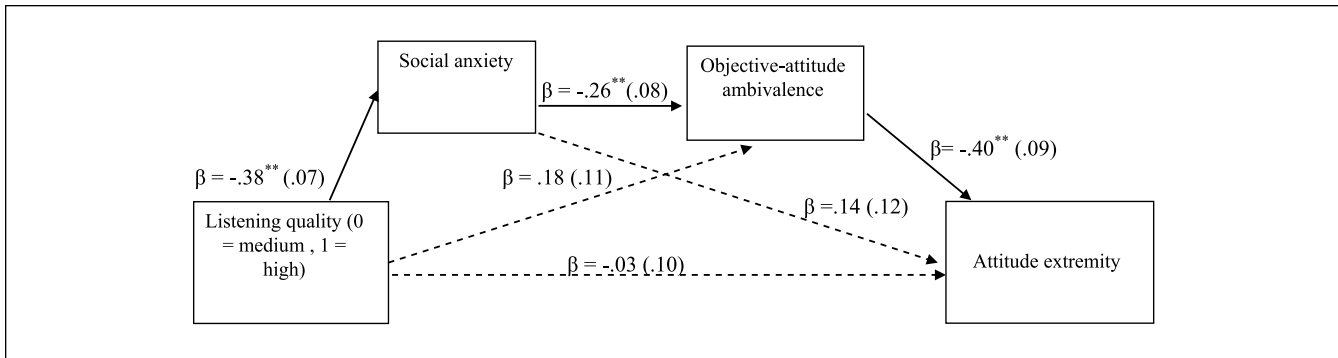
### Study 3

In Study 3, we distracted half of the listeners by placing flickering computer screens behind the speakers. We used this manipulation for two reasons. First, this manipulation may be easier to replicate by researchers who do not have access to trained listeners. Second, although previous work has found distraction to be an effective listening experience manipulation (Pasupathi & Hoyt, 2010; Pasupathi & Rich, 2005), we considered that this manipulation had more ecological validity because it resembled typical distractions in daily interactions, such as by smart phones and TV sets.

#### Method<sup>8</sup>

**Participants.** We recruited 102 undergraduates as in Study 1 and Study 2,  $M_{\text{age}} = 23.6$ ,  $SD = 2.3$ , 64% female. This sample size provides a power of .81 to detect a moderate effect size,  $d = 0.50$ .

**Procedure.** We randomly assigned dyads of participants to either the high-quality-listening or the low-quality-listening condition, and randomly determined the order of the speaker-first versus listener-first role. Participants in the speaker-first role read a short paragraph either about a possible tax on junk food to encourage healthier eating (Clark et al., 2008), or



**Figure 4.** Standardized estimates of multistep mediation for Study 2, standard errors in parentheses.

\* $p < .05$ . \*\* $p < .01$ .

about an ostensible university requirement that students do 50 hr of community service in jobs that benefits society (Baker & Petty, 1994; Tormala, DeSensi, & Petty, 2007).

We asked the speakers and the listeners to sit in pre-designated chairs facing each other. We placed the chairs such that approximately 2 m (about 7 feet) behind the speakers' chair, there were five computer screens visible only to the listeners. We asked the speakers to talk for 12 min about their assigned reading topic, and the listeners to "listen as you would listen to a close friend." In the low-quality-listening condition, we turned on the five computer screens, which flickered in black and white, whereas in the high-quality-listening condition, we turned the computers off. After the conversation, the speakers completed a questionnaire containing the research variables. At this time, the listeners completed different questionnaires unrelated to this study. After filling in the questionnaires, participants switched chairs and speaker-listener roles for a second 12-min conversation. The computers remained in the same state for the second round (flickering or turned off). In the second round, the speakers were given the paragraph describing the second topic. After completion of the second conversation, we asked the speakers to complete the parallel measures; this time tailored to the topic of the second conversation.

There was no difference in listening experience between the first and second speakers,  $t(100) = 0.47, p = .64$ , and no interaction between order of speaking or experimental condition and listening experience,  $F(1, 98) = 0.06, p = .81$ . There was no interaction between the attitude topic and experimental condition and social anxiety, objective ambivalence, attitude extremity, or subjective ambivalence,  $F_s(1, 98) < 1.38, p_s > .24$ . Listeners in the low-quality-listening condition reported that they were more distracted than listeners in the high-quality-listening condition,  $t(100) = 6.20, 95\% \text{ CI} = [2.06, 4.00], d = 1.24$ .

#### Measures

**Listening experience.** We used the same measure as in previous studies but expanded it to an 11-point response scale

ranging from 0 = *do not agree at all* to 10 = *completely agree*,  $\alpha = .90$ , to increase its validity (Aguinis, Pierce, & Culpepper, 2009).

**Social anxiety.** We used the same measure as in previous studies but expanded it to a 9-point response scale ranging from 1 = *do not agree at all* to 9 = *completely agree*,  $\alpha = .95$ .

**Objective-attitude ambivalence, attitude extremity, attitude valence, and subjective-attitude ambivalence.** We used the same measures as in previous studies,  $\alpha_{\text{negative items}} = .97, \alpha_{\text{positive items}} = .95, \alpha_{\text{subjective ambivalence}} = .92$ .

#### Results and Discussion

Because participants were nested within a dyad, we first examined the degree of non-independence (calculated by intra-class correlations) of participants' responses to social anxiety,  $\text{ICC} = .19$ ; positive and negative items,  $\text{ICCs} = .29$  and  $.15$ , respectively; and subjective ambivalence,  $\text{ICC} = .35$ . When  $\text{ICC} < .50$  in dyadic data, the level of non-independence is inconsequential and does not require dyadic data analysis (Kenny, Kashy, & Cook, 2006); hence, we analyzed our data with ordinary least squares (OLS), as in previous studies.

Table 3 presents the descriptive statistics for this study. Participants in the high-quality-listening condition experienced better listening than participants in the low-quality-listening condition,  $t(100) = 4.41, 95\% \text{ CI} = [0.83, 2.09], d = 0.89$ , indicating that the manipulation was effective. Speakers in the high-quality-listening condition in comparison with speakers in the low-quality-listening condition reported the following: (a) lower social anxiety,  $t(100) = -3.29, 95\% \text{ CI} = [-1.82, -0.45], d = -0.66$ ; (b) higher objective-attitude ambivalence,  $t(100) = 2.98, 95\% \text{ CI} = [2.02, 6.70], d = 0.60$ ; (c) lower attitude extremity,  $t(100) = -2.11, 95\% \text{ CI} = [-2.53, -0.08], d = -0.42$ ; (d) more negative thoughts and emotions,  $t(100) = -1.99, 95\% \text{ CI} = [-2.60, -0.01], d = -0.40$ ; and (e) more positive thoughts and



**Table 3.** Study 3: Means and SDs by Listening Conditions.

Variable	Listening condition	
	High quality	Medium quality
Listening experience		
M	8.35	6.68
SD	0.63	2.21
Social anxiety		
M	2.22	3.36
SD	1.44	1.99
Negative items		
M	-5.50	-4.19
SD	3.67	2.94
Positive items		
M	7.09	6.14
SD	2.99	2.56
Objective-attitude ambivalence		
M	9.42	5.59
SD	7.37	4.28
Subjective ambivalence		
M	1.84	2.51
SD	1.55	2.09
Attitude extremity		
M	3.18	4.48
SD	3.50	2.91
Attitude valence		
M	1.59	1.99
SD	4.35	5.00

emotions,  $t(100) = 1.76$ , 95% CI = [-0.14, 2.05],<sup>9</sup>  $d = 0.35$ . There was no difference in attitude valence,  $t(100) = 0.37$ , 95% CI = [-2.20, 1.50],  $d = 0.08$ .

**Mediation analysis.** As can be seen in Figure 5, both the indirect,  $\beta = .06$ , 95% CI = [0.01, 0.11], and direct,  $\beta = .24$ , 95% CI = [0.06, 0.41], effects of the listening experience manipulation on objective-attitude ambivalence were significant, indicating partial mediation. The indirect effect of the listening manipulation on attitude extremity was significant,  $\beta = -.21$ , 95% CI = [-0.38, -0.04], whereas the direct effect was not,  $\beta = .00$ , 95% CI = [-0.15, 0.14], indicating full mediation. The model fit the data,  $\chi^2(3) = 5.01$ ,  $p = .17$ , CFI = .99, RMSEA = .08, 90% CI = [0.00, 0.11], and the hypothesized model was better than the alternative model (cf. Study 1),  $AIC_{\text{hypothesized model}} = 19.56$ ,  $AIC_{\text{alternative model}} = 28.14$ .

As in Study 2, the association between objective- and subjective-attitude ambivalence was moderated by the experimental condition,  $Z = -2.02$ ,  $p = .04$ . Specifically, whereas in the low-quality-listening condition, objective ambivalence was correlated with subjective ambivalence,  $r = .44$ ,  $p < .01$ , in the high-quality-listening condition, this correlation vanished,  $r = .06$ ,  $p = .66$ . Finally, participants in the high-quality-listening condition reported lower subjective ambivalence

than participants in the low-quality-listening condition,  $t(100) = -1.81$ , 95% CI = [-1.39, 0.06],<sup>10</sup>  $d = -0.36$ .

The results of Study 3 replicated the results of the previous studies using a new manipulation and employing a different attitude topic. Thus, Study 3 increased the generalizability of our results. However, the previous studies provide no information on the specific mechanism activated by listening that affected attitude structure. Our results raise several questions. First, does the effect of listening on attitude structure stem from its ability to reduce defensive processing, which bolsters initial attitudes (decreases attitude ambivalence)? Second, and related to the defensive processing explanation, could a high quality listener cause speakers to believe that the listener agrees with them, and thus reduce the need to be defensive? Third, according to our theoretical model, the effects of listening on attitude structure take place because high quality listening reduces social anxiety. If so, we would expect that the listening effects would be especially pronounced in participants who are high on dispositional social anxiety. Finally, are the effects reported above generalizable across levels of initial objective-attitude ambivalence and extremity? That is, can high quality listening increase attitude ambivalence in people who have minimal initial ambivalence (or decrease extremity in people who have maximal initial extremity)?

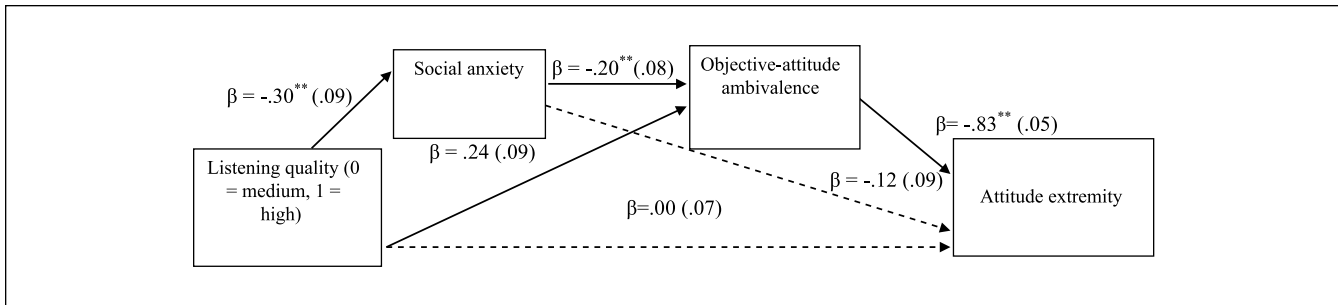
## Study 4

In Study 4, we replicated the design of Study 3 with two additions. First, we added measures of defensive processing, perceived listener agreement, and dispositional social anxiety. Second, we measured attitude twice, once before and once after the manipulation. These changes, in concert, allowed us to address the questions formulated above concerning the putative mechanism.

## Method

**Participants.** We recruited 166 undergraduates as in previous studies,  $M_{\text{age}} = 23.20$ ,  $SD = 2.28$ , 56% female, either in exchange for course credit or monetary compensation (approximately equivalent to US\$5.00). This sample size provides a power of .95 to detect a moderate effect size,  $d = 0.50$ .

**Procedure.** A few days before the experiment, we asked the participants to read short paragraphs *both* about organ donation and about euthanasia. Next, we asked them to rate their attitudes on the Kaplan's split semantic differential scale, and on a measure of dispositional social anxiety. In the experiment, we repeated the procedure we used in Study 3, with two modifications: We instructed listeners in both conditions to "listen as you do when you listen at your best," and we asked speakers to talk *either* about organ donation or about euthanasia.



**Figure 5.** Standardized estimates of multistep mediation for Study 3, standard errors in parentheses. \* $p < .05$ . \*\* $p < .01$ .

As in Study 3, there was no difference in listening experience between the first and second speakers,  $t(164) = 0.75$ ,  $p = .46$ , nor an interaction between order of speaking and the experimental condition and listening experience,  $F(1, 162) = -0.002$ ,  $p = .99$ . There was no interaction between the attitude topic and experimental condition for any of the DVs,  $F_s(1, 164) < 2.25$ ,  $p_s > .14$ . Listeners in the low-quality-listening condition reported feeling more distracted than listeners in the high-quality-listening condition,  $t(164) = 8.38$ , 95% CI = [2.78, 4.49],  $d = 1.31$ . Importantly, the speakers, who could not see the computer screens, were not affected by the experimental manipulation,  $t(164) = 0.34$ , 95% CI = [-0.78, 1.06],  $d = 0.05$ .

#### Measures

**Dispositional social anxiety.** We used the Social Phobia Inventory (SPIN; Connor et al., 2000), which is made up of 17 items and assesses fear, avoidance, and physiological symptoms that characterize social phobia. Participants rated the presence of symptoms in the preceding week on 9-point scales ranging from 1 = *not at all* to 9 = *extremely*,  $\alpha = .96$ .

**Listening experience, social anxiety, and subjective-attitude ambivalence.** We used the same measure as in previous studies but expanded the state social anxiety measure to an 11-point response scale,  $\alpha = .96$ , .91, and .93, respectively.

**Defensive processing.** We used two measures for defensive processing: a self-report and a thought-listing task.

**Self-report.** Prior to the experiment, we developed and pretested,  $n = 97$ , a nine-item scale to fit the experimental design (e.g., “I felt I had to justify my position on the issue”; see Supplementary Material). Among these items were two items (e.g., “It was important for me to present arguments that support my position to the listener”) that we adapted from previous work (Lieberman & Chaiken, 1992). We wrote the remainder of the items. Factor analysis indicated one factor containing six items (including the two items we adapted). This factor explained 36.7% of the variance,  $\alpha_{\text{pretest}} = .82$ . Hence, in Study 4, we used a six-item scale,  $\alpha = .86$ .

**Thought listing.** We asked speakers to list the thoughts they had while speaking. We gave them 2.5 min (monitored by computer) to fill out up to eight thought-listing boxes,  $M = 4.23$ ,  $SD = 1.94$  (Cacioppo & Petty, 1981). We gave these lists to two coders, who were blind to the study goal. The coders’ task was to tabulate how many thoughts reflected proxies of defensiveness: self-judgment (e.g., “I didn’t speak well about the subject”), self-justification (e.g., “My close friends think like me on this issue”), open-mindedness (e.g., “I thought about the reasons for my attitude”), and attitude bolstering (e.g., “I don’t understand how anyone could think that euthanasia should be permitted”). We created a defensiveness-processing index as follows:

$$\frac{\text{Self judgment} + \text{Self justification} - \text{Open mindedness} + \text{Attitude bolstering}}{\text{Total number of thoughts}}$$

Note that a higher score indicates more defensive processing, Cohen’s  $\kappa = .81$ .

**Perception of listener agreement.** We wrote three items to measure the extent to which speakers felt that the listeners agreed with the attitude they expressed (e.g., “I think the listener agreed with my argument about the issue”),  $\alpha = .95$ .

**Objective-attitude ambivalence change, attitude extremity change, and attitude valence change.** We measured participants’ positive and negative thoughts and feelings toward the issue twice (before and during the experiment). The reliabilities for the pre-experiment measures were high both for organ donation,  $\alpha_{\text{negative}} = .92$ ,  $\alpha_{\text{positive}} = .96$ , and for euthanasia,  $\alpha_{\text{negative}} = .96$ ,  $\alpha_{\text{positive}} = .97$ , as well as the attitude expressed during the experiment,  $\alpha_{\text{negative}} = .96$ ,  $\alpha_{\text{positive}} = .94$ , for organ donation, and  $\alpha_{\text{negative}} = .90$ ,  $\alpha_{\text{positive}} = .93$ , for euthanasia. We subtracted the pre-experiment scores from the post-experiment scores to calculate the *change scores* for objective-attitude ambivalence, attitude extremity, and attitude valence.

**Table 4.** Study 4: Means and SDs by Listening Conditions.

Variable	Listening condition	
	High quality	Medium quality
Listening experience		
M	8.70	6.76
SD	1.20	2.93
Social anxiety		
M	1.89	2.94
SD	1.86	2.33
Defensiveness—Self-report		
M	3.99	4.86
SD	2.11	2.19
Defensiveness—Thought listing		
M	0.05	0.16
SD	0.18	0.31
Perception of agreement		
M	5.85	5.47
SD	2.57	2.34
Negative items change		
M	0.02	0.00
SD	2.75	2.81
Positive items change		
M	1.01	0.57
SD	3.01	2.81
Objective-ambivalence change		
M	1.16	-0.24
SD	3.56	4.17
Subjective-ambivalence change		
M	2.32	2.79
SD	2.34	2.44
Attitude extremity change		
M	-0.23	0.78
SD	2.90	3.37
Attitude valence change		
M	1.03	0.57
SD	4.52	4.40

## Results and Discussion

All ICCs were below .50: social anxiety .41, defensiveness .12, perception of agreement .31, objective ambivalence .15, extremity .18, valence .23, and subjective ambivalence .17. Hence, we treated the data as independent.

Table 4 presents the descriptive statistics for this study. Participants in the high-quality-listening condition experienced better listening than participants in the low-quality-listening condition,  $t(164) = 5.31$ , 95% CI = [1.15, 2.59],  $d = 0.82$ . Speakers in the high-quality-listening condition also reported lower social anxiety,  $t(164) = -3.24$ , 95% CI = [-1.69, -0.40],  $d = -0.50$ . In addition, high quality listening decreased defensiveness both when measured with self-reports,  $t(164) = -2.61$ , 95% CI = [-1.52, -0.21],  $d = -0.40$ , and with thought listing,  $t(164) = -2.78$ , 95% CI = [-0.19,

-0.03],  $d = -0.44$ . However, there was no difference in perception of agreement with the listener,  $t(164) = 1.00$ , 95% CI = [-0.37, 1.13],  $d = 0.16$ .

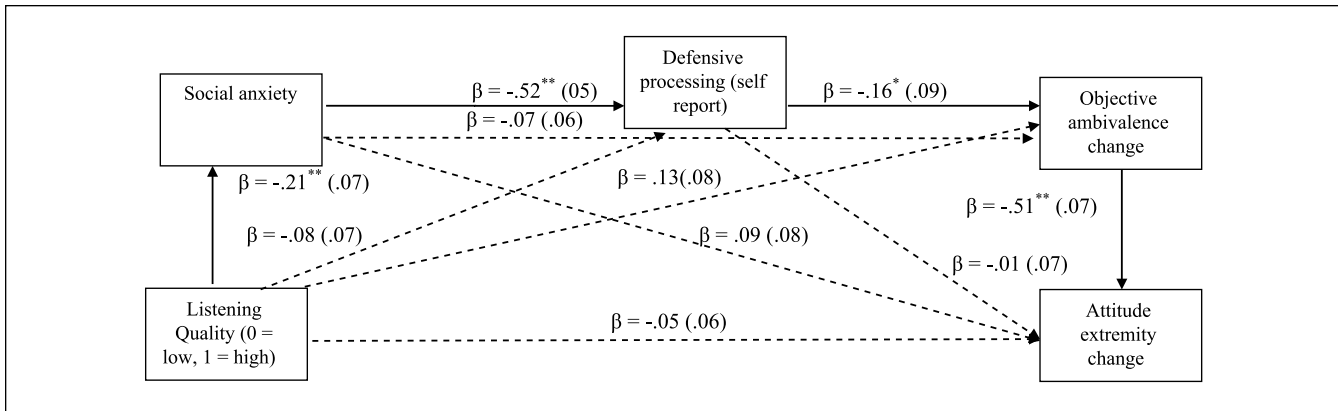
Speakers in the high-quality-listening condition reported greater changes in objective-attitude ambivalence,  $t(164) = 2.30$ , 95% CI = [0.20, 2.57],  $d = 0.36$ , and attitude extremity,  $t(164) = -2.06$ , 95% CI = [-1.97, -0.04],  $d = -0.32$ . There was no difference in the changes of the negative items,  $t(164) = 0.06$ , 95% CI = [-0.83, 0.88],  $d = 0.01$ ; positive items,  $t(164) = 0.97$ , 95% CI = [-0.45, 1.33],  $d = 0.15$ ; or in attitude valence,  $t(164) = -0.51$ , 95% CI = [-0.91, 1.83],  $d = -0.08$ .

**Mediation analyses.** We conducted two mediation analyses of the entire model, once for each measure of defensive processing (self-reports in Model 1; Figure 6, and thought listing in Model 2; Figure 7).<sup>11</sup> In both models, the indirect effects of listening experience on defensive processing were significant, Model 1,  $\beta = -.11$ , 95% CI = [-0.19, -0.04], and Model 2,  $\beta = -.05$ , 95% CI = [-0.09, -0.01]. The direct effect was not significant in Model 1,  $\beta = -.08$ , 95% CI = [-0.22, 0.06], (Figure 6), but significant in Model 2,  $\beta = -.25$ , 95% CI = [-0.40, -0.10], (Figure 7), indicating full and partial mediation, respectively.

Second, in both models, the indirect effects of listening experience on objective ambivalence change were significant, Model 1,  $\beta = .03$ , 95% CI = [0.002, 0.09], and Model 2,  $\beta = .07$ , 95% CI = [0.02, 0.14], whereas the direct effects were not, Model 1,  $\beta = .13$ , 95% CI = [-0.02, 0.30], and Model 2,  $\beta = .10$ , 95% CI = [-0.09, 0.29] (see Figures 6 and 7), indicating full mediation. Third, in both models, the indirect effects of listening experience on attitude extremity change were significant, Model 1,  $\beta = -.11$ , 95% CI = [-0.20, -0.02], and Model 2,  $\beta = -.10$ , 95% CI = [-0.20, -0.004], whereas the direct effects were not, Model 1,  $\beta = -.05$ , 95% CI = [-0.17, 0.08], and Model 2,  $\beta = -.06$ , 95% CI = [-0.20, 0.07] (see Figures 6 and 7), indicating full mediation. Moreover, both Model 1 and Model 2 fit the data better than the alternative model (cf. Study 1),  $AIC_{\text{Model 1}} = 26.90$ ,  $AIC_{\text{Model 2}} = 27.79$ ,  $AIC_{\text{alternative model}} = 35.17$ . The two models fit the data, Model 1,  $\chi^2(3) = 6.18$ ,  $p = .11$ , CFI = .96, RMSEA = .08, 90% CI = [0.00, 0.17], and Model 2,  $\chi^2(3) = 4.47$ ,  $p = .21$ , CFI = .99, RMSEA = .06, 90% CI = [0.00, 0.07].

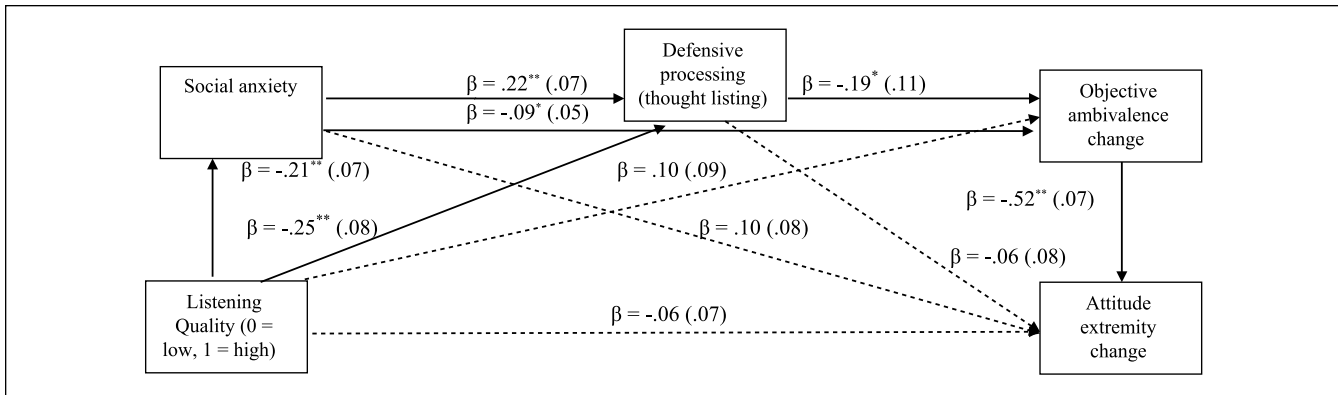
The association between objective- and subjective-attitude ambivalence was moderated by the experimental condition,  $Z = -2.93$ ,  $p < .01$ . Specifically, whereas in the low-quality-listening condition, objective ambivalence was correlated with subjective ambivalence,  $r = .56$ ,  $p < .01$ , in the high-quality-listening condition, this correlation was weak and not significant,  $r = .17$ ,  $p = .13$ . Finally, there was no significant difference in subjective ambivalence across conditions,  $t(164) = -1.00$ , 95% CI = [-1.11, 0.36],  $d = -0.16$ .

**Moderation analyses.** We examined whether initial objective ambivalence, initial attitude extremity, and social anxiety moderated the effects of listening on changes in objective-attitude



**Figure 6.** Standardized estimates of multistep mediation for Study 4 (Model 1), standard errors in parentheses.

\* $p < .05$ . \*\* $p < .01$ .



**Figure 7.** Standardized estimates of multistep mediation for Study 4 (Model 2), standard errors in parentheses.

\* $p < .05$ . \*\* $p < .01$ .

ambivalence. We first centered all the moderators about their means and then calculated three interaction terms by multiplying the mean-centered moderators with the experimental condition. We examined the three moderators in a single regression model. Specifically, we first regressed objective-attitude ambivalence change on the experimental condition, and the three mean-centered moderators,  $R^2 = .172$ . Then, we entered the three interaction terms,  $R^2 = .235$ . The addition of the three interaction terms significantly increased the explained variance of objective-attitude ambivalence,  $\Delta R^2 = .06$ ,  $F(3, 158) = 4.35$ ,  $p < .01$ .

The main effect of the listening manipulation on objective-attitude ambivalence was significant when controlling for the mean-centered variables and the interaction terms,  $\beta = .16$ ,  $p = .03$ . The interaction between dispositional social anxiety and the listening manipulation on objective-attitude ambivalence change was significant,  $\beta = .57$ ,  $p = .02$ . The simple slope for participants 1 *SD* below the mean of dispositional social anxiety was not significant,  $t(162) = 0.58$ ,  $\beta = .05$ ,  $p = .56$ , but significant for participants 1 *SD* above the mean,  $t(162) = 2.66$ ,  $\beta = .20$ ,  $p < .01$ . Second, the interaction

between the initial objective ambivalence and the listening manipulation on objective ambivalence change was not significant,  $\beta = -.07$ ,  $p = .79$ . The simple slopes for participants both 1 *SD* below,  $t(162) = 2.19$ ,  $\beta = .18$ ,  $p = .03$ , and above,  $t(162) = 2.09$ ,  $\beta = .17$ ,  $p = .04$ , the mean of initial objective ambivalence were significant. Third, the interaction between the listening manipulation and initial attitude extremity on objective ambivalence change was significant,  $\beta = -.53$ ,  $p = .05$ . The simple slope for participants 1 *SD* below the mean of initial attitude extremity was significant,  $t(162) = 2.84$ ,  $\beta = .22$ ,  $p < .01$ . However, the simple slope for participants 1 *SD* above the mean of initial attitude extremity was not significant,  $t(162) = 1.01$ ,  $\beta = .08$ ,  $p = .34$ .

In sum, Study 4 provided several clarifications. First, we succeeded in replicating a new way to manipulate listening (with an ecologically valid distraction). Second, we supported the entire hypothesized model using two measures of defensive processing. Third, measuring post-listening manipulation *change* in both objective ambivalence and extremity showed that listening is effective in affecting attitude structure in people who are high on social anxiety but not when

there is no social anxiety to reduce. This result suggests that social anxiety may be part of the mechanism affecting attitude structure. Moreover, although we did not find listening to have a different effect for speakers who were high or low on initial objective-attitude ambivalence, we did find that listening increased objective-attitude ambivalence for speakers who were low, but not high, on initial attitude extremity. That is, listening increased objective-attitude ambivalence for a speaker who was initially indifferent to the attitude object (e.g., rated 0 in both the positive and negative split semantic differential scales). However, listening did not increase objective-attitude ambivalence for speakers who had a one-sided attitude, that is, either very positive or very negative (e.g., rated 10 on the positive scale and 0 on the negative scale).

**Meta-Analysis**

We meta-analyzed the effects of our listening manipulations across six experiments, using random-effect meta-analyses. For each effect, we report its effect size using Cohen’s *d* estimate; a confidence interval (lower limit [LL] and upper limit [UL]); an estimate of the true variance,  $\tau$ ; the *Q* statistic; and its *p* value. *Q* is a chi-square statistic which describes the percentage of the variability in effect estimates due to true heterogeneity,  $\tau$ , rather than the sampling error. The null hypothesis is that all studies shared the same effect size. Under the null hypothesis, *Q* should follow a central chi-square distribution with degrees of freedom equal to *k* – 1. When the *p* value is less than .05, the null hypothesis is rejected, and it can be concluded that there is true variance in the studies’ common effect size (Borenstein, Hedges, Higgins, & Rothstein, 2009).

As can be seen in Table 5, our manipulations had, on average, (a) a strong effect on speakers’ perception of listeners,  $\bar{d} = 0.93$ ; (b) a medium effect on social anxiety,  $\bar{d} = -0.64$ , and objective-attitude ambivalence,  $\bar{d} = 0.48$ ; (c) a weak to moderate effect on attitude extremity,  $\bar{d} = -0.39$ ; and (d) a weak effect on subjective-attitude ambivalence,  $\bar{d} = 0.28$ . All the effects were significant. Moreover, high quality listening on average did not affect attitude valence. Moreover, the variances of *d* across studies, on all variables, were not significant, as indicated by the low *Q* values and estimates of  $\tau$  that were mostly zero. Importantly, the effect sizes were most probably underestimates of the effects in nature because our inputs for the meta-analyses were comparisons between high and medium, or low and medium listening conditions. A comparison of very low and very high levels of listening could yield effect sizes twice the sizes reported here.

**General Discussion**

We developed a theoretical model according to which high quality listening reduces speakers’ social anxiety which in turn enables speakers to process information less defensively,

**Table 5.** Meta Analyses Testing the Effects of Experimental Condition (High Quality Listening) in Comparison With Control Conditions (Medium and Low Quality Listening) on Research Variables Across Six Experiments (N = 632).

Variable	<i>d</i>	LL	UL	$\tau$	<i>Q</i>	<i>df</i>	<i>p</i>
Perceived listening (manipulation check)	0.93	0.67	1.20	.06	4.72	5	.45
Social anxiety	-0.64	-0.80	-0.48	.00	3.38	5	.64
Objective-attitude ambivalence	0.48	0.32	0.64	.00	3.58	5	.61
Subjective-attitude ambivalence <sup>a</sup>	-0.28	-0.48	-0.07	.00	1.11	2	.57
Attitude extremity	-0.39	-0.55	-0.24	.00	2.41	5	.79
Attitude valence	-0.02	-0.18	0.13	.00	3.66	5	.60

Note. The input for the meta-analysis from Study 1 was based on averaging the effect of high quality listening versus medium quality listening and the effect of medium quality listening versus low quality listening. That is, we chose a conservative estimate of the effects of listening. LL = lower limit; UL = upper limit.

<sup>a</sup>Subjective ambivalence was measured in three studies, *n* = 366.

which by extension increases objective-attitude ambivalence. The increased objective ambivalence makes the speaker’s attitude less extreme. We hypothesized that when experiencing high quality listening, the increase in objective ambivalence should not be accompanied by higher subjective ambivalence; that is, we hypothesized that high quality listening would elicit awareness and tolerance of inconsistencies with regard to an attitude object. Across four studies, we found consistent support for our hypotheses despite employing different manipulations and attitude topics.

Our work has several implications for research on the association between objective- and subjective-attitude ambivalence. First, our studies add high quality listening to the list of moderators for this association (van Harreveld, Nohlen, & Schneider, 2015). Second, increased awareness of inconsistencies has been found to increase objective-attitude ambivalence (Newby-Clark et al., 2002; Schneider et al., 2013; van Harreveld, Rutjens, Schneider, Nohlen, & Keskinis, 2014). However, the finding that an interpersonal variable (high quality listening) can make a speaker both aware of his or her inconsistencies and also tolerate it is novel and consistent with Rogers’s idea that communication with another person affects communication within parts of the self of the speaker (Rogers & Roethlisberger, 1991). That is, when the listener is non-judgmental toward the speaker, the speaker becomes less judgmental toward himself or herself (for a discussion of types of dialogues within the self, see Hermans, 1996). In other words, a non-judgmental listener increases the awareness of the speaker to inner contradictions in a way that is tolerable.

Defensive processing and attitude bolstering are usually tested by providing new information that is contrary to beliefs by an external source such as counterarguments or

persuasive messages. Our studies examined defensive processing and attitude bolstering merely as a function of listening experience, where participants were not confronted with either a counterargument or a persuasive message. The findings showed that the speakers' attitudes became less extreme because of information provided by the speakers by themselves while encountering high quality listening. This suggests that an unexplored technique which can make people reconsider their initial attitude is listening in an emphatic and non-judgmental way. Second, the listening-induced effect on defensive processing indicates that low quality listening can have similar effects as counterarguing, namely, increased defensive processing and attitude bolstering. Third, in Study 4, we found no effect of the listening manipulation on perception of agreement with the listener. That is, the decrease in defensive processing should be attributed to the extent to which the speakers felt the listeners *accepted* them, rather than *agreed* with their attitude.

In Study 4, we also tested boundary conditions for our model. We found that the effect of experiencing high quality listening on attitude structure decreases when (a) social anxiety cannot be reduced (low dispositional social anxiety) and when (b) the initial attitude is extreme.

Across the four studies, listening had an inconsistent effect on attitude valence. In Study 1, high quality listening reduced the positive attitude to becoming a manager, and in the other studies, listening did not change speaker's attitude valence. Consistent with our hypothesis, these results suggest that listening increases objective-attitude ambivalence, that valence may be affected in both directions, or not at all. This pattern of results is consistent with findings that a change in attitude structure does not necessarily covary with a change in attitude valence (Tormala & Petty, 2004).

### Limitations and Future Research

Although experiencing high quality listening consistently affected attitude structure across our studies, we do not know whether these effects hold over time. Second, our studies are uninformative as to whether some dimensions of listening (empathy, non-judgmental, attention) are stronger than others in predicting a change in attitude structure. Third, we did not manipulate social anxiety, defensive processing, or objective-attitude ambivalence across the studies; hence, our design does not rule out the possibility of a different causal order of the mediational model. For example, it might be possible to conceptually argue for a different order between objective-attitude ambivalence and social anxiety (objective-attitude ambivalence → social anxiety). Specifically, high quality listener may convey a norm to the speaker that ambivalence is acceptable or even desired, thereby making the speaker aware and tolerant of contradictory responses. Such a process could make the speaker believe a conflict has been resolved with regard to the attitude object and might make the speaker feel less anxious. Finally, our studies show that experiencing high quality listening attenuates the

association between objective- and subjective-attitude ambivalence. However, objective-attitude ambivalence is known to have a greater impact on subjective ambivalence when people have to make a decision (van Harreveld, Rutjens, Rotteveel, Nordgren, & van der Pligt, 2009). Our studies did not involve decision making; thus, we do not know whether a listening experience can attenuate this association when it is expected to be strong. Future studies involving listening and decision making would make it possible to explore whether the listening-induced effect on tolerance for contradictions can translate into a decrease in cognitive dissonance. High quality listening may lead to integrative complexity (Suedfeld, Tetlock, & Streufert, 1992); that is, people may become more tolerant of conflicting cognitions and search for a way to integrate them.

### Conclusion

We showed how Carl Rogers's (1980) theory can be applied to influence speakers' attitude structures. Rogers's approach has informed various therapy practices; however, we are not aware of any previous attempt to test his core argument that high quality listening creates awareness and tolerance of conflicting cognitions. Future studies should further explore the ways in which high quality listening can affect other attitude properties, especially as regards reducing attitude extremity.

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### Supplemental Material

The online supplemental material is available at <http://pspb.sagepub.com/supplemental>.

### Notes

1. We conducted two additional studies (a vignette experiment and a quasi-experiment) that provided additional support for the hypotheses. However, due to space limitations, these studies are not included in this manuscript. Information about these studies can be obtained from the first author. The results of these studies are included in the meta-analysis.
2. In all studies, when we used the ambivalence formulas in Thompson, Zanna, & Griffin (1995), we obtained similar results. This is congruent with previous findings that

various formulas of objective-attitude ambivalence are highly correlated with each other (DeMarree, Wheeler, Briñol, & Petty, 2014; Priester & Petty, 1996).

3. Across all studies, a mediation analysis indicated similar results when (a) averaging the cognitive and emotional pairs, (b) using the cognitive pair to measure objective-attitude ambivalence and the emotional pair for attitude extremity, and (c) using the emotional pair to measure objective-attitude ambivalence and the cognitive pair for attitude extremity.
4. Except when the respective scores are at their maximum value; that is, the objective-attitude ambivalence score is 20 or the attitude extremity score is 10.
5. We report standardized estimates across all mediation analyses.
6. In this and all other studies, our sample size was below the recommended sample size,  $n > 200$ , for stable fit indices (Kline, 2011). Thus, our fit indices should be interpreted with caution.
7. Marginally significant,  $p = .09$ .
8. In Studies 3 and 4, we tested additional variables as part of another project. The measures are reported in the supplementary material. The results of these measures can be obtained from the first author.
9. Marginally significant two-tailed,  $p = .09$
10. Marginally significant two-tailed,  $p = .07$ .
11. Measures of defensive processing were moderately associated,  $r = .30, p < .01$ .

## References

- Aronson, E., (1999). The power of self-persuasion. *American Psychologist*, *54*(11), 875.
- Aguinis, H., Pierce, C. A., & Culpepper, S. A. (2009). Scale coarseness as a methodological artifact: Correcting correlation coefficients attenuated from using coarse scales. *Organizational Research Methods*, *12*, 623-652. doi:10.1177/1094428108318065
- Baker, S. M., & Petty, R. E. (1994). Majority and minority influence: Source-position imbalance as a determinant of message scrutiny. *Journal of Personality and Social Psychology*, *67*, 5-19.
- Bodie, G. D. (2012). Listening as positive communication. In T. Socha & M. Pitts (Eds.), *The positive side of interpersonal communication* (pp. 109-125). New York, NY: Peter Lang.
- Bodie, G. D., Jones, S. M., Vickery, A. J., Hatcher, L., & Cannava, K. (2014). Examining the construct validity of enacted support: A multitrait-multimethod analysis of three perspectives for judging immediacy and listening behaviors. *Communication Monographs*, *81*, 495-523.
- Borenstein, M., Hedges, L., Higgins, J., & Rothstein, H. (2009). *Introduction to meta-analysis*. Chichester, UK: John Wiley.
- Brehm, J. W. (1972). *Responses to loss of freedom: A theory of psychological reactance*. Morristown, NJ: General Learning Press.
- Briñol, P., Petty, R. E., Gallardo, I., & DeMarree, K. G. (2007). The effect of self-affirmation in nonthreatening persuasion domains: Timing affects the process. *Personality and Social Psychology Bulletin*, *33*, 1533-1546.
- Briñol, P., Petty, R. E., & Wheeler, S. C. (2006). Discrepancies between explicit and implicit self-concepts: Consequences for information processing. *Journal of Personality and Social Psychology*, *91*, 154-170.
- Briñol, P., Rucker, D., Tormala, Z. L., & Petty, R. E. (2004). *Individual differences in resistance to persuasion: The role of beliefs and meta-beliefs*. Mahwah, NJ: Lawrence Erlbaum.
- Bruneau, E. G., & Saxe, R. (2012). The power of being heard: The benefits of "perspective-giving" in the context of intergroup conflict. *Journal of Experimental Social Psychology*, *48*, 855-866.
- Cacioppo, J. T., & Petty, R. E. (1981). Social psychological procedures for cognitive response assessment: The thought-listing technique. In T. Merluzzi, C. Glass & M. Genest (Eds.), *Cognitive assessment* (pp. 309-342). New York: Guilford.
- Caprariello, P. A., & Reis, H. T. (2011). Perceived partner responsiveness minimizes defensive reactions to failure. *Social Psychological & Personality Science*, *2*, 365-372.
- Castro, D. R., Kluger, A. N., & Itzchakov, G. (2016). Does avoidance-attachment style attenuate the benefits of being listened to? *European Journal of Social Psychology*. Advance online publication. doi:10.1002/ejsp.2185
- Clark, J. K., Wegener, D. T., & Fabrigar, L. R. (2008). Attitudinal ambivalence and message-based persuasion: Motivated processing of proattitudinal information and avoidance of counterattitudinal information. *Personality and Social Psychology Bulletin*, *34*, 565-577.
- Connor, K. M., Davidson, J. R., Churchill, L. E., Sherwood, A., Weisler, R. H., & Foa, E. (2000). Psychometric properties of the Social Phobia Inventory (SPIN) New Self-Rating Scale. *The British Journal of Psychiatry*, *176*, 379-386.
- Correll, J., Spencer, S. J., & Zanna, M. P. (2004). An affirmed self and an open mind: Self-affirmation and sensitivity to argument strength. *Journal of Experimental Social Psychology*, *40*, 350-356.
- Crocker, J., & Park, L. E. (2004). The costly pursuit of self-esteem. *Psychological Bulletin*, *130*, 392-414.
- DeMarree, K. G., Wheeler, S. C., Briñol, P., & Petty, R. E. (2014). Wanting other attitudes: Actual-desired attitude discrepancies predict feelings of ambivalence and ambivalence consequences. *Journal of Experimental Social Psychology*, *53*, 5-18.
- Fabrigar, L. R., MacDonald, T. K., & Wegener, D. T. (2005). The structure of attitudes. In D. Albarracín, B. T. Johnson & M. P. Zanna (Eds.), *The handbook of attitudes* (pp. 79-124). Mahwah, NJ: Erlbaum.
- Fisbein, M., & Ajzen, I. (1975). *Belief, attitude, intention and behavior: An introduction to theory and research*. Reading, MA: Addison-Wiley.
- Frey, D. (1986). Recent research on selective exposure to information. *Advances in Experimental Social Psychology*, *19*, 41-80.
- Friend, R. M., & Gilbert, J. (1973). Threat and fear of negative evaluation as determinants of locus of social comparison. *Journal of Personality*, *41*, 328-340.
- Harris, P. R., & Napper, L. (2005). Self-affirmation and the biased processing of threatening health-risk information. *Personality and Social Psychology Bulletin*, *31*, 1250-1263.
- Heller, J. F., Pallak, M. S., & Picek, J. M. (1973). The interactive effects of intent and threat on boomerang attitude change. *Journal of Personality and Social Psychology*, *26*, 273-279.
- Hermans, H. J. M. (1996). Voicing the self: From information processing to dialogical interchange. *Psychological Bulletin*, *119*, 31-50.
- Itzchakov, G., Castro, D. R., & Kluger, A. N. (2016). If you want people to listen to you, tell a story. *International Journal of Listening*, *30*, 120-133.
- Itzchakov, G., & Kluger, A. N. (2015, April). *If you listen to me, I will change my attitude*. Paper presented at the 30th Annual Conference of the Society for Industrial and Organizational Psychology, Philadelphia, PA.

- Jemmott, J. B., Ditto, P. H., & Croyle, R. T. (1986). Judging health status: Effects of perceived prevalence and personal relevance. *Journal of Personality and Social Psychology, 50*, 899-905.
- Johnson, D. W. (1971). Effects of warmth of interaction, accuracy of understanding, and the proposal of compromises on listener's behavior. *Journal of Counseling Psychology, 18*, 207-216.
- Kaplan, K. J. (1972). On the ambivalence-indifference problem in attitude theory and measurement: A suggested modification of the semantic differential technique. *Psychological Bulletin, 77*, 361-372.
- Kashdan, T. B., & Steger, M. F. (2006). Expanding the topography of social anxiety: An experience-sampling assessment of positive emotions, positive events, and emotion suppression. *Psychological Science, 17*, 120-128.
- Kenny, D. A., Kashy, D. A., & Cook, W. L. (2006). *Dyadic data analysis*. New York: Guilford Press.
- Kline, R. B. (2011). *Principles and practice of structural equation modeling* (3rd ed.). New York, NY: Guilford Press.
- Knowles, E. S., & Linn, J. A. (2004). *Resistance and persuasion*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Krosnick, J. A., & Petty, R. E. (1995). Attitude strength: An overview. In R. E. Petty & J. A. Krosnick (Eds.), *Attitude strength: Antecedents and consequences* (pp. 1-24). Mahwah, NJ: Lawrence Erlbaum Associates.
- Kumashiro, M., & Sedikides, C. (2005). Taking on board liability-focused information: Close positive relationships as a self-bolstering resource. *Psychological Science, 16*, 732-739.
- Kunda, Z. (1990). The case for motivated reasoning. *Psychological Bulletin, 108*, 480-498.
- Leary, M. R. (1983). Social anxiousness: The construct and its measurement. *Journal of Personality Assessment, 47*, 66-75.
- Liberman, A., & Chaiken, S. (1992). Defensive processing of personally relevant health messages. *Personality and Social Psychology Bulletin, 18*, 669-679.
- Lydon, J., Zanna, M. P., & Ross, M. (1988). Bolstering attitudes by autobiographical recall: Attitude persistence and selective memory. *Personality and Social Psychology Bulletin, 14*, 78-86.
- Maio, G. R., & Haddock, G. (2010). *The psychology of attitudes and attitude change*. London, England: SAGE.
- Newby-Clark, I. R., McGregor, I., & Zanna, M. P. (2002). Thinking and caring about cognitive inconsistency: When and for whom does attitudinal ambivalence feel uncomfortable? *Journal of Personality and Social Psychology, 82*, 157-166.
- Pasupathi, M., & Hoyt, T. (2010). Silence and the shaping of memory: How distracted listeners affect speakers' subsequent recall of a computer game experience. *Memory, 18*, 159-169.
- Pasupathi, M., & Rich, B. (2005). Inattentive listening undermines self-verification in personal storytelling. *Journal of Personality, 73*, 1051-1086.
- Petty, R. E., Ostrom, T., & Brock, T. (1981). Historical foundation of the cognitive response approach to attitudes and persuasion. In R. E. Petty, T. Ostrom, & T. Brock (Eds.), *Cognitive response in persuasion* (pp. 5-29). Hillsdale, NJ: Lawrence Erlbaum.
- Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods, 40*, 879-891.
- Priester, J. R., & Petty, R. E. (1996). The gradual threshold model of ambivalence: Relating the positive and negative bases of attitudes to subjective ambivalence. *Journal of Personality and Social Psychology, 71*, 431-449.
- Rogers, C. (1951). *Client-centered therapy: Its current practice, implications and theory*. Boston, MA: Houghton Mifflin.
- Rogers, C. (1980). *A way of being*. Boston, MA: Houghton Mifflin.
- Rogers, C., & Roethlisberger, F. J. (1991). HBR classic—Barriers and gateways to communication (Reprinted from Harvard Business Review, July-August, 1952). *Harvard Business Review, 69*, 105-111.
- Schimmel, J., Arndt, J., Pyszczynski, T., & Greenberg, J. (2001). Being accepted for who we are: Evidence that social validation of the intrinsic self reduces general defensiveness. *Journal of Personality and Social Psychology, 80*, 35-52.
- Schlenker, B. R., & Leary, M. R. (1982). Social anxiety and self-presentation: A conceptualization model. *Psychological Bulletin, 92*, 641-669.
- Schneider, I. K., Eerland, A., van Harreveld, F., Rotteveel, M., van der Pligt, J., van der Stoep, N., & Zwaan, R. A. (2013). One way and the other: The bidirectional relationship between ambivalence and body movement. *Psychological Science, 24*, 319-325.
- Sherman, D. K., & Cohen, G. L. (2002). Accepting threatening information: Self-affirmation and the reduction of defensive biases. *Current Directions in Psychological Science, 11*, 119-123.
- Snelling, E. (2005). Hungry researchers: The tensions and dilemmas of developing an emancipatory research project with members of a hearing voices group. *Journal of Social Work Practice, 19*, 131-147.
- Suedfeld, P., Tetlock, P. E., & Streufert, S. (1992). *Conceptual/integrative complexity*. Cambridge, UK: Cambridge University Press.
- Thompson, M. M., Zanna, M. P., & Griffin, D. W. (1995). Let's not be indifferent about (attitudinal) ambivalence. In R. E. Petty & J. A. Krosnick (Eds.), *Attitude strength: Antecedents and consequences* (pp. 361-386). Mahwah, NJ: Erlbaum.
- Tormala, Z. L., DeSensi, V. L., & Petty, R. E. (2007). Resisting persuasion by illegitimate means: A metacognitive perspective on minority influence. *Personality and Social Psychology Bulletin, 33*, 354-367.
- Tormala, Z. L., & Petty, R. E. (2004). Source credibility and attitude certainty: A metacognitive analysis of resistance to persuasion. *Journal of Consumer Psychology, 14*, 427-442.
- van Harreveld, F., Nohlen, H. U., & Schneider, I. K. (2015). Chapter five—The ABC of ambivalence: Affective, behavioral, and cognitive consequences of attitudinal conflict. *Advances in Experimental Social Psychology, 52*, 285-324.
- van Harreveld, F., Rutjens, B. T., Rotteveel, M., Nordgren, L. F., & van der Pligt, J. (2009). Ambivalence and decisional conflict as a cause of psychological discomfort: Feeling tense before jumping off the fence. *Journal of Experimental Social Psychology, 45*, 167-173.
- van Harreveld, F., Rutjens, B. T., Schneider, I. K., Nohlen, H. U., & Keskinis, K. (2014). In doubt and disorderly: Ambivalence promotes compensatory perceptions of order. *Journal of Experimental Psychology: General, 143*, 1666-1676.
- Wenzel, A., & Kashdan, T. B. (2008). Emotional disturbances and the initial stages of relationship development: Processes and consequences of social anxiety and depression. In S. Sprecher, A. Wenzel, & J. Harvey (Eds.), *Handbook of relationship initiation* (pp. 425-450). New York: Psychology Press.