

Listener Effects on the Speaker's Psychological Safety and the Moderating Role of Avoidant-Attachment Style

Thesis submitted for the degree of

“Doctor of Philosophy”

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Submitted to the Senate of the Hebrew University of Jerusalem

March / 2014

This work was carried out under the supervision of:

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Acknowledgements

This dissertation is dedicated to those I love

Ben and Daniel

For me, the process of this dissertation was not as driving a high way, but more like traveling a scenic road. It took time and patience but the road itself was extremely rewarding. I thank and deeply appreciate the opportunity for travelling and spending time with so many kind and talented people.

First, I would like to thank my advisor Prof. Avi Kluger: For the support, guidance, encouragement and for listening to understand. Above all I want to thank Prof. Kluger for supporting me in materializing that dream. I would also thank and express my deepest respect for Prof. Mario Mikulincer, whose work taught and inspired me along the way. I also thank Prof. Monisha Pasupathi for her wise and helpful comments that improved my work.

I warmly thank Niva Porzycky and Dana Stolerma –Taggart for the dedication and data collection. I wish to thank Osnat Hazan, Keren Mor and Osnat Bouskila – Yam for the support and ideas along the way. Many thanks dedicated to Dr. Liat Levontin for her clever advices all along.

Finally, I want to thank my wife Avital for tolerating me along the way. Without her I could not have travel that road

Abstract

The current research focused on Active Listening (AL) as described by Rogers (Rogers, 1952, 1980). I proposed that AL creates a sense of psychological safety (PS) for the speaker (H1), which in turn encourages speaker's self-exploration (H2), and also that AL increases speaker's liking of the listener, and feelings of closeness to the listener (H3). Finally, I hypothesized that the effect of AL on PS is moderated by avoidant attachment style (H4). To test these hypotheses I conducted seven studies. Study 1 was a lab study ($N = 66$) and showed that AL (experimental group) increased speaker's PS compared to control group (free conversation), $d = .46$; $p < .05$; one-tailed. This effect was qualified by a marginally significant interaction with avoidant attachment style, $F(1,62) = 3.37$, $p < .07$. Study 2 was a constructive replication of Study 1. In Study 2 ($N = 70$) AL (experimental group) increased speaker's PS compared to control group (free conversation), $d = .53$; $p < .05$. PS marginally mediated the relation of AL and self-exploration (H2) and the effect of AL on PS was moderated by avoidant-attachment style. Study 3 was a correlational-field study designed to increase ecological validity. It showed that perception of one's managers listening and PS are positively correlated, $r = .65$; $p < .01$, and that this link is attenuated by avoidant attachment style, $t = 1.70$, $p < .05$, one tailed. Study 4 was a scenario experiment designed to increase validity and generalization across relationship types. Study 4 included nine conditions: Listening (AL, no listening, typical conversation) X Relations (manager, peer, and stranger). As expected, listening increased PS, $F(2,447) = 479.51$, $p < .01$ more in the AL condition than in the neutral condition, $d = 0.91$, and dramatically more than the no listening condition,

$d = 4.39$. Listening effect was also found to be moderated by avoidant-attachment style. Moreover, relationship type did not interact with the listening manipulation nor did have main effects. After supporting H1 and H4, I conducted three more studies to test H2 and H3 and to overcome limitations of Study 1 and 2. However, in study 5 ($N = 144$), the hypotheses were not supported, except H4 – avoidant-attachment style was found to moderate the relation between AL and PS in the predicted direction, $t_{\text{interaction}}(137) = -1.53, p < .06$. Study 6 was design to test research hypotheses while adding a manipulation check and a procedure to distinguish among Studies 1, 2 and 5. In Study 6 ($N = 128$) the manipulation check showed no difference in the way participants felt they were listened to, $d = .16, p = .46$ and therefore not surprisingly, the research hypotheses were not supported except for H4: avoidant-attachment style interacted with experimental condition $t_{\text{interaction}}(124) = -2.76, p < .05$. However, using correlational design with the manipulation check item as AL, yielded the expected results: listening manipulation check indeed predicted PS, $\beta = .52, p < .01$, consistent with H1. Mediation analysis using bootstrap analysis supported H2, indirect effect of PS = .24, CI95%LL = .07, CI95%UL = .46. Listening was also found to predict closeness $\beta = .44, p = .01$ in support of H3. Study 7 was design to use a stronger AL manipulation. In Study 7 ($N = 46$), the manipulation check showed no difference between the conditions, $d = .04, p = .88$. Accordingly, research hypotheses were not supported. However, again, the listening manipulation check predicted PS, $\beta = .57, p < .01$, consistent with H1. PS did not predicted self-exploration, $\beta = .14, p = .34$, inconsistent with H2, but in the predicted direction. Listening manipulation predicted closeness, $\beta = .41, p < .01$ in support of H3. The manipulation check marginally interacted in the predicted direction with attachment-avoidance style in affecting PS $t_{\text{interaction}}(41) = -1.50, p = .07$. To summarize, AL increased PS clearly in four studies

and partially in two studies (when using the manipulation check as IV). This effect was moderated by avoidant attachment style in five studies and partially in two studies. AL increased closeness to the speaker (partially in three out of four studies). Finally, PS did not consistently predicted self-exploration. Importantly, in three out of five lab studies, the listening manipulation failed to create the hypothesized effects. The current research largely supported Rogers' ideas regarding the effects of listening on PS while revealing avoidant-attachment style as a possible boundary condition to his theory. The experiments exposed difficulty in manipulating listening, which may have implication for listening training. Among the implications discussed are the length of conversation, prior relations of speaker and listener and time needed for listening training.

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Introduction

Although counter intuitive, the listener's role is not a passive one but an active one. The listener shapes not only the speaker's narrative (Bavelas, Coates, & Johnson, 2000; Beukeboom, 2009), but even the speaker's self (Pasupathi, 2001; Pasupathi & Hoyt, 2009; Pasupathi & Rich, 2005; Rogers & Roethlisberger, 1991/1952; Weeks & Pasupathi, 2011). Theoretically, the listener plays an active part in the "joint action" of conversation, where the actions of the speaker and listener are mutual and reciprocal (also supported in Kuhlen & Brennan, 2010). The listener's behavior influences the speaker's story, so that the listener "co-narrates" the story with the speaker. Co-narration was demonstrated in a series of experiments which compared the behaviors of speakers paired with attentive vs. distracted listeners. Attentive, as opposed to distracted listeners, caused speakers to produce longer, more elaborate narratives with a better ending (Bavelas et al., 2000). In addition, a listener's facial expression, such as a smiling vs. a frowning face, changed the speaker's language from abstract to concrete (Beukeboom, 2009).

An even more radical view of the listener's role was proposed by Rogers (e.g., Rogers & Roethlisberger, 1991/1952). According to his view, empathic listening can lead to personality change in the speaker, afforded by a repair in the communication process within the self of the speaker. Specifically, Rogers suggested that maladjustment in people stems from an internal communication failure. Offering a listening experience that leads to a sense of safety triggers a process that has the potential to heal this internal communication failure (for other aspects of "healing listening" see Jackson, 1992). According to Rogers, sometimes merely listening is

enough to help a client. This type of potent listening is referred to as Active Listening (AL), a term that stresses the active role of the listener.

Active Listening

There are many definitions of listening (Glenn, 1989; Janusik, 2007); however, the current work focused on listening intended to benefit the speaker and support the speaker's growth, rather than listening that is carried out to control or to manipulate the speaker (Barnlund, 1962). Such AL is conducted by a listener who conveys to the speaker that his or her messages were accurately understood (Gordon, 1977) and is characterized as "sensitive, accurate, empathic, non-judgmental" (Roger, 1980 p. 14). Not judging, or not evaluating reduces threat to the speaker, thus allowing the speaker to experience a sense of safety, value and acceptance (Rogers & Farson, 1987). That is, when speakers (e.g., clients in the Client-Centered-Therapy case) feel that they are being heard non-judgmentally and are truly understood, they tend to feel safe (Rogers, 1951).

The theoretical argument that listening increases *psychological safety* (PS) was based on Rogers's clinical experience but was neither tested empirically nor argued directly in contexts other than therapy. Other benefits of listening have been reported in many domains, such as business (Covey, 2000; Flynn, Valikoski, & Grau, 2008; Mineyama, Tsutsumi, Takao, Nishiuchi, & Kawakami, 2007; Ramsey & Sohi, 1997; Rogers & Roethlisberger, 1991), medicine (Boudreau, Cassell, & Fuks, 2009), close-friend interactions (Pasupathi & Rich, 2005), and even encounters with strangers (Sprecher, Treger, & Wondra, 2013). The literature has shown that listening can be beneficial for people in day-to-day interactions though the question of whether AL increases PS for the speakers in such interactions remains as yet unanswered.

To conclude, Rogers's argument regarding the effects of listening on a sense of safety did not translate into experimental empirical research, nor was it updated by more recent theory and listening research. Thus, the goals of this dissertation were to test Rogers's argument regarding the effects of listening and expand it by revealing possible moderators (attachment theory) of listening in day-to-day interactions. Following are explanations of the pertinent theories.

Psychological Safety

Psychological safety (PS) is a construct closely related to Rogers's concept of atmosphere of safety. Kahn (1990) defined psychological safety as the ability "to show and employ one's self without fear of negative consequences to self-image, status, or career" (Kahn, 1990 ,p. 708). Tynan (2005) defined self-psychological safety as a feeling of emotional safety, trust and respect when engaging with another person. These definitions of psychological safety are similar to the effects of listening in therapy, as Rogers suggested, assurance of expressing oneself freely without fear of threat or judgment. The opposite seems to be true as well: when people feel afraid or threatened they tend to remain silent (Kish-Gephart, Detert, Trevino, & Edmondson, 2009). Unlike Rogers's observations, the research on PS as defined above was conducted mostly in workplace settings with listening managers and their employees, and in many cases using quantitative methods. For example, consistent with the *inclusive leadership* theory, it was found that leaders who were accessible and available, and who listened to their employees, fostered PS (Carmeli, Reiter-Palmon, & Ziv, 2010). In these studies, the concept of PS is usually at the team level (Edmondson, 1999; Edmondson, Bohmer, & Pisano, 2001; Edmondson & Nembhard, 2009), though a handful of studies were conducted at the dyadic level and at the individual level. For example, there is some qualitative evidence for leadership

effectiveness on influencing PS (Roussin, 2008) and cross-sectional data that suggests that listening and PS are strongly correlated ($r = .70$, Fenniman, 2010). These arguments and findings lead to the current study's first hypothesis.

H1: AL increases speakers' PS.

Rogers, in explaining what happens to the client in the process of therapy and listening, argued that:

In this atmosphere of safety, protection, and acceptance, the firm boundaries of self-organization relax. 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 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 ... (Rogers, 1951, p.193).

According to Rogers, when individuals feel safe (while being accepted, respected and understood) they are free to explore their self. Exploring the self can mean becoming aware of new aspects and voices within the self. The notion and theory of the existence of different voices within the self are described next.

Dialectical Self

The *dialectical-self* theory focuses on self-structure and its organization, and presumes that the self has properties of *I-positions* (for an overview see Hermans, 1996). These *I-positions* have a metaphoric ability to voice, communicate and build dialogical relations among themselves (similar, perhaps, to Rogers's "internal communication", described above). The interacting voices are the foundation of a

complex structure of the self. The voices are relatively autonomous, have distinctive properties and are organized as a "society of mind." As in a society, the relationships of the voices are subjected to power and dominance of one over the other, so that some voices have a better opportunity to be expressed, and are more powerful, dominant, influential and louder than others (Hermans, 1996, 2008). These concepts are in congruence with differentiation of the self that appears in other self-theories (e.g., Constantino, Wilson, Horowitz, & Pinel, 2006).

According to Rogers (1951) people may suffer because their inner dialogue is impaired. To heal and restore communication within the self and thus enable better dialogue between different and sometimes opposing voices, one must experience a dialogue with a person (a therapist in his cases) who can listen to the multiple voices within the self. To listen well, the listener should suspend judgment and offer truly attentive and empathic listening (Rogers, 1980). This type of listening appears to facilitate the restoration or development of healthy communication within the speaker's self. Hence, the hypothesis that could be extracted from these lines of thought is that AL creates PS which enables exploration and increases internal communication (dialogue) between different and sometimes new voices in the self.

H2: AL effect on self-exploration of inner voices is mediated by psychological safety.

Listening Consequences – Improving Interpersonal Relationship

I propose that listening is relational in nature such that listening will affect a cluster of variables connected to interpersonal relationship quality. This cluster may include a sense of being understood and closeness (Jackson, 1992). The claim that listening promotes relationships is somewhat consistent with findings showing that when people disclose more intimate details about themselves (as speakers) they tend

to favor the partner to whom they have disclosed (Collins & Miller, 1994).

Furthermore, Reis & Shaver's (1998) interpersonal process model suggests that in addition to self-disclosure, partner *responsiveness* also contributes to intimacy, when the responsiveness is perceived as understanding, validating and caring. It is argued that speaker interpretation (perceived responsiveness) of the listener's responsiveness is more important than the actual behavior of the listener. Indeed, such interactions with this type of listening were found to increase intimacy (Laurenceau, Barrett, & Pietromonaco, 1998).

This cluster of relationship variables may be indistinguishable in the speaker's experience. The idea that listening creates a cluster of relational variables is somewhat similar to Buber's ideas of dialogue. According to Buber (1937) individuals encounter each other in two opposite modes: dialogue (I-Thou) or monologue (I-It). Dialogic relationship is based on mutual and authentic existence. On the other hand in a monologue relationship, individuals relate to each other as objects that can serve one's interest. Although Buber's ideas are philosophical, it is argued that when one individual truly listens attentively and respectfully to another, a collection of relational processes is triggered in parallel and has the potential to transform, even momentarily, two strangers from an "I-It" relationship to an "I-Thou" relationship. Indeed, listeners who listened to self-disclosures experienced closeness and affinity for the disclosing person (as per Collins & Miller, 1994), thus replicating findings on generating closeness in short social interaction (Sprecher et al., 2013).

H3: AL increase (a) liking of the listener, and (b) feelings of closeness to the listener.

Since the positive effects of listening are relational, listening may influence people in different ways, depending on individual differences in dealing with relationships. Relationships are at the core of attachment theory; therefore, this theory can clarify who will benefit most from being listened to, and thus is described next.

Attachment Theory

According to the attachment theory (Mikulincer & Shaver, 2007) human behavior is organized by innate behavioral systems. One of these systems is the attachment system that provides security via support of others in time of distress. However, when the attachment system fails, it triggers a secondary attachment response that could either hyper-activate or deactivate the attachment system. Chronic hyperactivation produces *anxious* attachment style and chronic deactivation produces *avoidance* attachment style. Anxious attachment is characterized by a conflict between a desire for intimacy and fear of rejection. Avoidant attachment is characterized by emotional distancing from others and a tendency for self-reliance. Individuals who have low levels of both avoidant and anxious dimensions are considered to be securely attached.

The Moderating Effect of Chronic Attachment Style

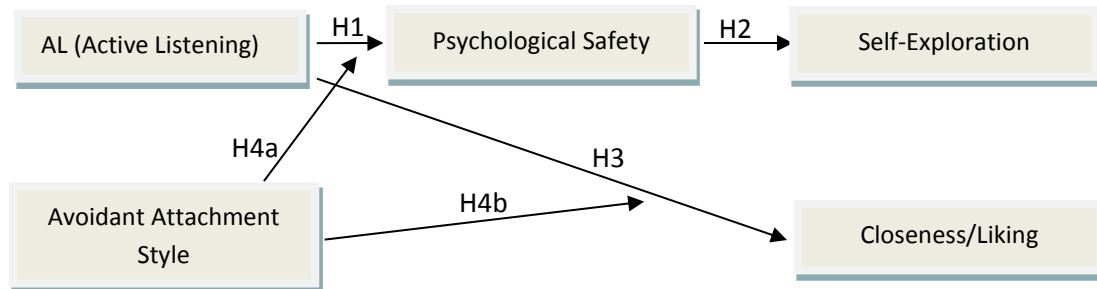
According to Hazan & Shaver (1990), people with avoidant-attachment style find it difficult to trust another person, share feelings and depend on others. They prefer not to become intimate, and define themselves as independent. Moreover, they tend to dismiss the importance of social and interpersonal domains (Mikulincer & Shaver, 2007). On the other hand, people with secure-attachment style, feel more comfortable with closeness. Thus, the chronic-attachment style is likely to moderate the effects of listening, so that people with secure attachment-style will gain the most from being listened to. In contrast, people with avoidant-attachment style will not

enjoy the beneficial effects of listening, because a truly attentive listener is incongruent with their habitual emotional distancing from others and their defensive mechanism. Indeed, evidence suggests that people with avoidant-attachment style are unwilling to make intimate self-disclosures and do not like high disclosers (Mikulincer & Nachshon, 1991; Mikulincer, Shaver, Gillath, & Nitzberg, 2005). These effects may be stronger when two strangers meet, in contrast to people already in a relationship. When one meets a stranger, a general working model of attachment is activated. An individual characterized by a secure-attachment style tends to approach a new relationship with optimism and trust. It is then hypothesized that listening promotes a greater feeling of psychological safety (H1), closeness and liking (H3) largely for people with secure- attachment style. Such social interactions are not favored by people with avoidant-attachment style who prefer self-reliance and distance themselves from intimate-social interaction. Therefore, people with avoidant-attachment style may feel lower levels of safety and closeness with the listener. Furthermore, people with avoidant-attachment style tend to activate a defensive mechanism when their self is threatened (Mikulincer & Shaver, 2007). Therefore, the attenuated listening effects on reduced psychological safety for people with avoidant-attachment style may be even stronger when the topic of conversation is personal (inviting intimacy) or threatening to the self. Moreover, people with avoidant-attachment style are more reluctant to engage in exploratory behaviors, perhaps because they fail to recognize safety signals communicated by the other person (Mikulincer & Shaver, 2007). Consequently, I hypothesized that:

H4: The effects of AL on (a) psychological safety and (b) relationship variables are moderated by chronic attachment styles, so that AL will increase

psychological safety more for people with secure-attachment style than for people with avoidant-attachment style.

To summarize, the current study tests the following ideas of Rogers regarding the effects of AL: AL increases speaker's sense of PS (H1), self-exploration (H2), and the relationship with the listener (H3). This research also tested a boundary condition of Rogers's ideas: People who are high on avoidant-attachment style are likely to gain less PS and closeness with listeners than people who are low on avoidant-attachment style. These hypotheses are summarized in Figure 1.



The Present Research

In the seven studies reported in the current research, I tested the effects of AL on the speaker (PS, self-exploration and feeling of closeness to the speaker) and the attenuating role of speaker's avoidant-attachment style. It was hypothesized that AL would increase speaker's PS (H1) and as a consequence would mediate the effect of AL on speaker's self-exploration (H2). It was also hypothesized that AL would increase feeling of closeness to the listener (H3). Moreover, it was hypothesized that the effect of AL on PS and feeling of closeness are attenuated by the speakers' avoidant-attachment style (H4; but not by anxious-attachment style).

In Study 1 and Study 2 hypotheses were tested with experimental-lab studies. To increase external validity, Study 3 tested the relation of listening and PS (H1) and the moderation of avoidance-attachment style (H4) using a correlational design at the workplace. To further increase internal validity and the generalizing of the findings, I ran Study 4 using a scenario experiment with different types of listeners: a manager, a peer and a stranger at work. Study 5 and Study 6 were designed to overcome some limitations of Study 1 and Study 2, by teasing out listener and speaker effects where listener and speaker roles are distinguished. The listening manipulation did not work well in Study 5 and Study 6. Therefore, I ran Study 7 to test research hypotheses using a different listening manipulation.

Study 1

Method

Participants. Undergraduate students from the School of Business Administration at the Hebrew University of Jerusalem ($N = 66$) participated in an experiment for credits. Participants' age ranged from 18 to 29, ($M_{\text{age}} = 22.91$, $SD = 2.04$), and 56% of the participants were females.

Procedure. Participants were randomly assigned to one of two groups: free conversation group and listening group. In each condition, participants were randomly assigned to pairs. Once paired, participants were asked to get acquainted with their partner for one minute. Following the acquaintance, they were asked to talk about a positive experience they had for six minutes. After six minutes, participants were asked to end their conversation and to fill out a study questionnaire. In the *free conversation* group, the participants received the following instructions: "Please tell each other of about a positive experience you had. For that purpose you will have exactly 6 minutes for both stories". Whereas in the *Listening – time sharing* group, the

participants received the following instructions: "Each of you will tell his research partner about a positive experience you had. When you are in a listener role you should do it with full attention, however you may not speak. You have three minutes to tell the story". At the end of 3 minutes the participants were requested to switch roles.

Measures.

Psychological Safety (PS). I developed for this study 12 Likert-type items, ranging from 1 = *to a very small degree* to 7 = *to a very high degree*. Items were: "I felt secure to talk freely" , "I felt understood" , "I felt comfortable to talk" , "I could say unacceptable things" , "I felt I wasn't being judged" , "I felt my partner was interested in me" , "I felt the listener cared about me" , "I felt that my partner was sensitive" , "I felt that my partner was patient" , "I felt my partner was empathic" , "I felt my feelings were understood" , "My different opinions were understood" . Factor analysis with Promax rotation yielded two factors. The correlation among the scales based on these factors was high ($r = .54$) indicating that they might belong to the same second-order factor. Thus, items of the two sub-scales were averaged to build one PS scale ($\alpha = .86$).

Attachment Style. The Experiences in Close Relationship Inventory (ECR; Brennan, Clark, & Shaver, 1998) is a validated measure of attachment style. The ECR contains 36 items: 18 items measure attachment avoidance and 18 items measure attachment anxiety. In the present study reliability was satisfactory both for attachment anxiety ($\alpha = .91$) and attachment avoidance ($\alpha = .85$). Scales were centered on their means.

Results

Table 1 presents means, *SDs* and correlations of Study 1.

Table 1

Study 1: Means, SDs and Correlations of Study Variables.

Variables	<i>M</i>	<i>SD</i>	1	2
1. PS	5.11	1.00		
2. Anxious	3.48	1.10	-.16	
3. Avoidance	3.55	0.89	-.01	.20

Note. *N* = 66.

The intra-class correlation (ICC) of PS in the dyads ($ICC = .08$) did not justify using dyadic data analysis (DDA; Kenny et al., 2006), and therefore I proceeded to test my hypotheses with a simple *t* test and *OLS* regression.

As expected (H1), AL increased PS compared to free conversation, $d = .46$, $p < .05$, one-tailed. However, this effect was qualified by a marginally significant interaction with avoidant-attachment style, H4; $\beta = -.19$, $t(1,62) = -1.50$, $p < .08$, one-tailed. As can be seen in Figure 2, this interaction suggests that the effect of AL on PS was stronger among participants with low avoidant attachment style.

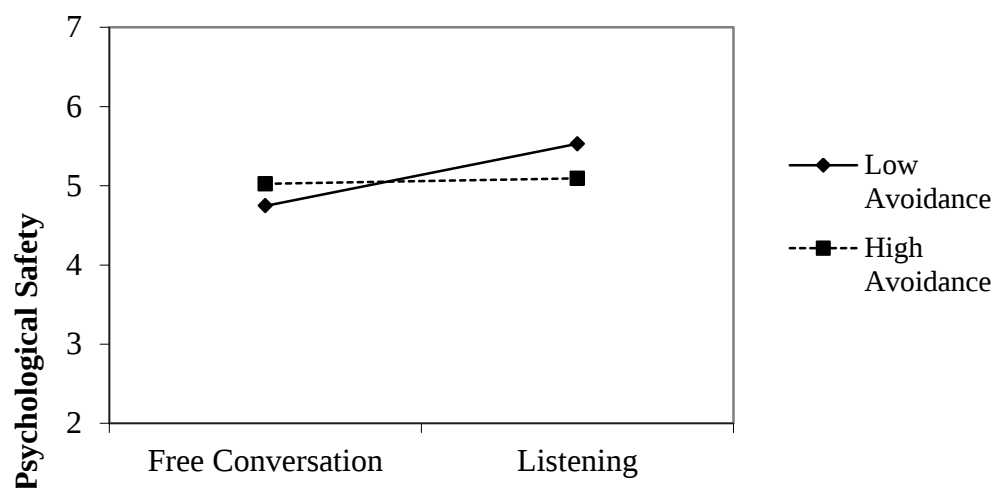


Figure 2. Psychological safety (PS) as a function of experimental condition (listening vs. free conversation) and avoidance-attachment style scale one standard deviation above and below mean.

There was no significant interaction between the experimental condition and anxious-attachment style, $F(1,62) = 1.85, p = .18$ in affecting PS, as well as no significant interaction of order of being listener or speaker, $F(1, 62) = 0.25, p = .62$. Note that order was a meaningful variable in the listening condition, but not in the free conversation condition because the random assignment to pairs did dictate order of speaking only in the listening condition. There was no significant difference of order on PS in listening condition $t(30) = 0.85, p = .40$.

Discussion

Study 1 results showed that listening, compared with free conversation, increased PS (H1) but yielded only marginally significant results for the moderation hypothesis (H4). When two strangers encounter and listen for only three minutes, the speakers experienced higher PS. These results hint that a non-trained listener, when provided only with minor instructions on how to listen can influence the speaker in a positive manner. However, the study had several limitations. First, the AL method that was used in this study is unique since most people, when listening, will not stay mute when encountering a stranger. It is more likely that listeners will listen and ask the speakers questions. Therefore, it is important to test if a more natural AL will also create higher PS for the speaker compared to free conversation. Therefore, Study 2 major goals were: (a) replicate Study 1 with a more natural and engaging AL method, and (b) test H2 & H3.

Study 2

Method

Participants. Undergraduate from the same school sampled in Study 1 ($N = 70$) participated in an experiment for credits ($M_{\text{age}} = 23.48$, $SD = 1.95$, and 47% were females).

Procedure. The procedure was identical to Study 1, except the topic of conversation (significant experience instead of the positive experience used in Study 1) and instructions in the listening conditions. Specifically, in the *free-conversation* group, participants received the following instructions: "Please tell each other of a significant experience you had. For that purpose you will have exactly 6 minutes for both stories". In the *listening* group, participants received the following instructions:

Each of you will tell his research partner about a significant experience. This research focuses on listening processes. Therefore, when you are in the listener role do that with full attention and respect for the speaker. Try to wait patiently for the speaker. You are welcome to show interest and ask questions such as: What did that experience do to you? How it has influenced you? And so on. Finally, try to listen to the speaker as if he or she was a close friend of yours.

Measures.

PS ($\alpha = .82$), *avoidance-attachment style* ($\alpha = .85$), and *anxious-attachment* ($\alpha = .90$) style scales were measured as in Study 1.

Self-Exploration. I constructed five 7-point Likert-scale items ranging from 1 = *to a very small degree* to 7 = *to a very high degree* to measure self-exploration. Example items are "I've recognized new aspects of my opinions," "I've learned something about myself." Scale was found to be reliable ($\alpha = .84$). See Appendix A for scales items.

Closeness. Closeness was measured with two scales. *Including other in the self (IOS)*, which is a single pictorial item (Aron, Aron, & Smollan, 1992) and *Closeness and liking scale*: I constructed six items to measure feeling of closeness and liking between the listener and speaker with scale ranging from 1 = *to a very small degree* to 10 = *to a very high degree*. Examples items are “You like the other participant who listened,” “You’d been interested in your partner as a close friend.” The latter scale was found to be reliable ($\alpha = .92$) and significantly correlated with IOS ($r = .58, p < .01$). Therefore, I averaged the two scales as to yield a single closeness scale.

Results

Table 2 shows the means, *SDs* and correlations of the variables in Study 2.

Table 2

Study 2: Means, SDs and Correlations of Dependent Variables and Moderators.

Variables	<i>M</i>	<i>SD</i>	1	2	3	4
1. PS	5.28	1.00				
2. Closeness	6.70	1.95	.65**			
3. Exploration	3.20	1.35	.55**	.43**		
4. Avoidance	3.22	0.81	-.24*	-.10	-.15	
5. Anxious	3.25	1.01	-.02	.05	-.02	.13

Note. $N = 70$.

* $p < .05$, one tailed. ** $p < .01$, one tailed.

The ICC within dyad for PS was .48, which is very close to the cutoff of .50, above which Kenny, Kashy, & Cook (2006) suggest using DDA. Therefore, the hypotheses were tested with DDA, taking into account the dependencies among pairs of participants.

As expected (H1), AL created higher PS compared to free conversation, $d = .53$ (calculated with the formulae given by Kenny et al., (2006, p. 56), $p < .02$, one-tailed, replicating Study 1 results.

To test H2 that AL effect on self-exploration is mediated by psychological safety, mediation analysis was conducted based on Baron & Kenny (1986) methodology. Because I used DDA, the mediation analysis was carried out with HLM using HLM 7 (Raudenbush, Bryk, Cheong, & Congdon, 2011). In this HLM, using all DV's in the equation, the experimental condition was modeled as Level 2 predictor. In separate models, the experimental condition increased PS, $b = .23$, $t(33) = 1.97$, $p < .05$ and self-exploration, $b = .34$, $t(33) = 2.10$, $p < .05$. A model predicting self-exploration from AL, while controlling for PS, showed that both experimental effect, $b = .33$, $t(33) = 2.10$, $p < .05$, and the effect of PS are significant, $b = .65$, $t(33) = 2.15$, $p < .05$. These results suggest partial mediation.

AL marginally increased the feeling of closeness between speaker and listener in the predicted direction, H3: $d = .37$, $p < .06$, one-tailed.

To test moderation effect (H4), an additional DDA based on Kenny et al. (2006) method were conducted where the Level 1 equation was:

$$PS_{ij} = \beta_{0j} + \beta_{1j}*(Avoidance) + r_{ij}$$

where, PS is the outcome variable, β_1 reflects the effect of avoidance-attachment style (ECR subscale) at Level 1 (variable was grand centered). At level 2, I tested the effects of the experimental condition, mean dyadic avoidance score, and their interaction. The Level 2 equation was:

$$\begin{aligned} \beta_{0j} = & \gamma_{00} + \gamma_{01}*(Mean dyad avoidance) + \gamma_{02}*(experimental condition) + \\ & \gamma_{03}*(experimental condition*dyad avoidance scale) + u_{0j}. \end{aligned}$$

The effects of avoidance, as well as the interaction of avoidance at Level 1 with the experimental condition at Level 2 were not significant. However, consistent with the hypotheses, the effects of the experimental condition and the interaction with mean avoidant attachment style were significant at Level 2. Results are shown in Table 3.

Table 3

Study 2: Final estimation of fixed effects (with robust standard errors)

Fixed Effect	Coefficient	SE	<i>t</i>	Approx. <i>df</i>	<i>p</i> <
For β_0					
Mean Avoidance Scale, γ_{01}	-0.46	0.29	-1.60	31	.13
Experimental Condition, γ_{02}	2.27	0.82	2.34	31	.03
Interaction Condition * Avoidance, γ_{03}	-0.62	0.27	-2.11	31	.05
For Avoidance Scale slope, β_1					
INTRCPT2, γ_{10}	0.17	0.14	0.99	33	.33

The findings imply that listening and avoidance interacts in influencing PS at the dyad level and not at the individual level. To visualize this effect, mean dyadic avoidance score was split at the median. This interaction at Level 2 can be seen in Figure 3. For dyads low in avoidance the listening increased PS, $d = 2.79$, $p < .01$, but among dyads high in avoidance the effect is the opposite $d = -.73$, $p < .06$.

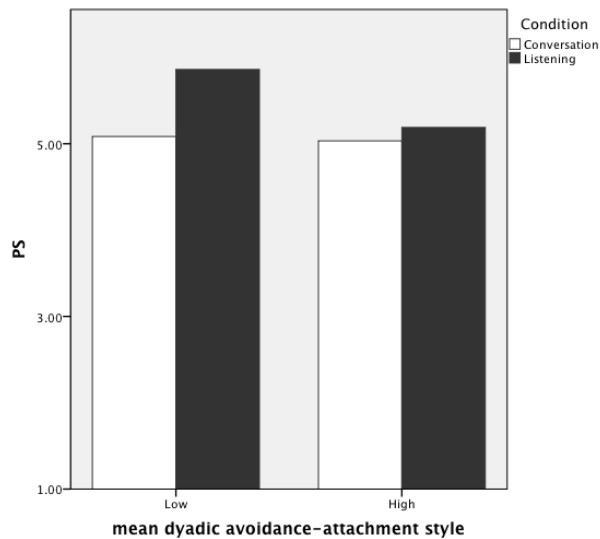


Figure 3. PS by mean dyadic avoidance-attachment style (High vs. Low) and experimental condition (AL vs. free conversation).

No significant interaction with anxious attachment-style, $t_{\text{interaction}}(55) = -0.64$, $p = .50$. There was no significant interaction of the AL manipulation with the order of listening versus speaking, $F(1,66) = 1.53$, $p = .22$. Also the order did not yield any significant differences in PS within listening condition, $t(32) = -0.66$, $p = .52$.

Discussion

As expected, AL increased PS, replicating Study 1 with a different listening manipulation. In both studies, I employed an experimental design, thus, it can be concluded so far that AL caused an increase in PS. Findings also imply that PS may mediate self-exploration (H2), in line with Rogers (1951) theory, as the results were in the predicted theoretical direction, albeit marginally significant. This can be due to a small-sample size. AL also marginally increased speaker's closeness toward the listener (in line with H3). That again may be due to the small sample that was used. Consistent with the pattern found in Study 1, and contrary to Rogers's ideas about the general benefits of listening; it was found that AL did not increase PS for avoidant

speaker-listener pairs. Thus, Study 2 both supports empirically Rogers's theory about the effect of AL on PS and exposes its limitation.

Both Study 1 and Study 2 suffered from several limitations: (a) procedure with potentially low external validity (we are typically not given listening instructions) (b) low ecological validity (we are typically not listening as attentively as in the lab when encountering strangers). Thus, a question arises whether research hypotheses would be supported in long-term relations such as the supervisor-employee relations at the work place. Therefore, Study 3 goals were to test the relation of listening and PS (H1) and the moderation of avoidance attachment style (H4) while increasing external validity by conducting a correlational field study where participants (a) have long-term relationships and (b) are embedded in work setting: managers and employees relationships.

Study 3

Method

Participants. Swedish managers ($N = 129$) volunteered for this study. Participants' age ranged from 18 to 64 (25% age 25 to 34, 29% age 35 to 44, 29% age 45 to 54) and 65% were females.

Procedure. Online questionnaire was delivered to Swedish managers as part of management conference organized by Ledarskapscentrum in Sweden during 2012. Participants answered the questionnaire voluntary prior to the conference.

Measures.

Constructive Listening. I used 10 items taken from the facilitative listening scale (FLS) using 7-point Likert-scale items ranging from 1 = "*Strongly disagree*" to 7 = "*Strongly agree*". FLS items were: "Encourages me to clarify a problem", "Pays close attention to what I say", "Pays close attention to what I say", "Tries hard to

understand what I am saying" , "Asks questions that show his/her understanding of my opinions" , "Expresses interest in my stories" , "Makes me feel that it is easy for me to talk to him/her" , "Gives me time and space to talk" , "Gives me his/her undivided attention" , "Creates a positive atmosphere for me to talk" and "Allows me to fully express myself" (Bouskila-Yam & Kluger, 2011) ($\alpha = .96$). The scale was centered to the mean.

PS. I used a short version (eight items) of the PS scale that was used in Study 1 and Study 2. Items were chosen based on high loading on the PS factor and high face validity. Scale items were: "My supervisor really cares about me" , "I feel secure to speak freely" , "I feel that my supervisor is interested in me" , "I feel that my supervisor is emphatic" , "I feel comfortable to discuss sensitive matters" , "I feel understood" and "I become more aware of my needs" ($\alpha = .94$).

ECR. Short version of ECR was used, with 18 items (Wei, Russell, Malinckrodt & Vogel, 2007). Avoidance and anxiety scales were found reliable (α 's=.69 and .74, respectfully) and were centered about their means.

Results and Discussion

Table 4 shows the means, standard deviations and correlations of the variables of Study 3.

Table 4

Study 3: Means, SDs and Correlations of Study Variables.

Variables	<i>M</i>	<i>SD</i>	1	2	3
1. PS	5.33	1.24			
2. Listening	0.00	1.23	.65**		
3. Avoidance	2.48	0.97	-.10	-.08	
4. Anxious	2.98	1.08	.14	.05	.32**

Note. $N = 129$.

** $p < .01$

As expected (H1) the perception of one's managers listening and PS were highly and positively correlated $r = .65$, $p < .01$. To test moderation effect (H4) regression analysis was conducted. The effect of listening on PS was found to be moderated by avoidant attachment style $t(125) = 1.70$, $p < .05$, one tailed, see Figure 4.

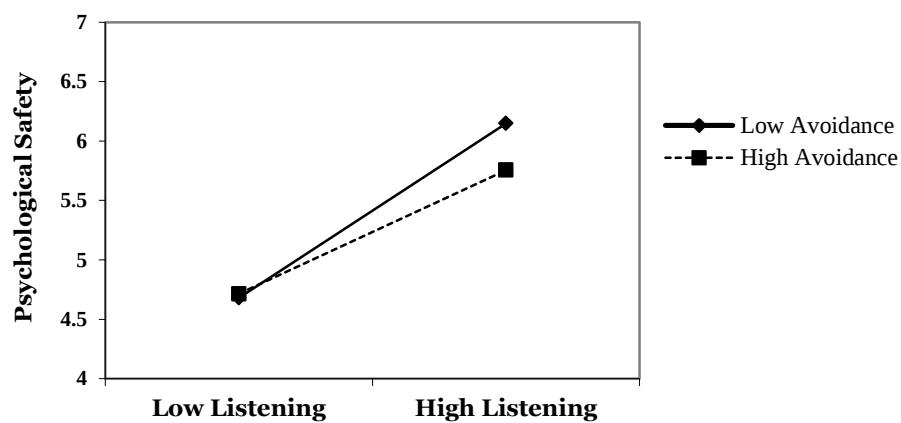


Figure 4. The relationship of listening with PS by avoidance attachment style (one standard deviation above and below the mean)

Calculating simple slopes with one *SD* above the mean and one *SD* below the mean revealed that all slopes were significant as can be seen in Table 5.

Table 5

Simple slope analysis for PS

Parameter	Estimate	SE	t value	P
Slope of listening when avoidance is low	.73	.09	8.18	.01
Slope of listening when avoidance is medium (mean)	.62	.07	9.46	.01
Slope of listening when avoidance is high	.53	.09	5.83	.01

No such interaction effect was found with anxious attachment style on PS, $t(125) = -0.64$, $p = .52$.

Study 3 replicated the effects found for AL on PS (H1) and the moderating role of attachment avoidance (H4) and provided external validity for these hypotheses by relying on manager's population and having long-term relationships with their own supervisors.

Study 3 is limited by two factors: (a) The correlational method (b) employees were asked to state their PS with their relation only to their direct supervisor. Being listened to by one's supervisor may be different from being listened to by one's peers or strangers at work. That is, the question is whether AL situations are powerful enough to produce PS when being listened to by different types of listeners.

Therefore, Study 4 goals were: (a) to increase validity of earlier studies by using an experimental method to manipulate AL, different from the methods used in Study 1

and Study 2, and (b) to increase generalizability by manipulating three types of relations: listening manager, listening colleague, listening stranger.

Study 4

Method

Participants. Voluntary and paid participants ($N = 456$) were recruited with snowball sampling ($M_{\text{age}} = 29.18$, $SD = 9.49$, and 60% were females).

Procedure. Participants took part in a web-based experiment and were randomly assigned to one of nine scenario conditions, manipulating 3 Listening Conditions (listening, neutral listening, no listening) X 3 Types of Relationship (manager, stranger, colleague). The *listening scenario* was as follow:

Imagine that you enter a meeting with your manager (colleague / employee you are not familiar with). During the meeting you have started to discuss a certain topic which is highly important to your tasks. During the conversation, while raising different issues pertaining to the topic at hand, you feel that your manager (colleague / employee you are not familiar with) listens to you. Even when there were several disturbances and phone calls, he chose not to answer and was attentive to you and to what you had to say. You have felt that your manager made efforts to understand you and your point of view and throughout the conversation ask questions, was interested and encourage you to clarify the issues.

The *non-listening* scenario was identical to the listening scenario with the following changes (in underline):

Imagine you enter a meeting with your manager (colleague / employee you are not familiar with). During the meeting you have started to discuss a certain topic which is highly important to you tasks. During the conversation while

raising different issues pertaining to the topic at hand you feel that your manager (colleague / employee you are not familiar with) did not listen to you. There were several disturbances and phone calls, ~~he chose not to answer~~ he was not attentive to you and to what you had to say. You have felt that your manager did not make efforts to understand you and your point of view and throughout the conversation he did not ask questions, was not interested and did not encourage you to clarify the issues.”

The *neutral scenario* was as follow:

Imagine you enter a meeting with your manager (colleague / employee you are not familiar with). During the meeting you have started to discuss a certain topic which is highly important to you tasks. During the conversation while raising different issues pertaining to the topic at hand you feel that your manager talks to you as you usually converse during work meetings. You have felt that the meeting was typical meeting between you and your manger.

After reading the scenario, participants were asked to take the PS and self-exploration measure imagining how they would react to the scenario, and then responded to the ECR scale and a few demographic items.

Measures.

PS. To measure PS, I constructed 19 items ranging from 1 = *to a very small degree* to 7 = *to a very high degree*. The PS scale is based on Study 1 and 2 PS scale with additional items. See Appendix A for all items list and more information on scale development. For example: “My partner has the best intentions for me”, “My partner really cared about me”, “I wasn’t being judged”, and “I felt secure to talk freely” ($\alpha = .98$).

Self-Exploration. Based on Study 2 scale, seven items were constructed to measure the way the in which speakers felt a sense of exploring within themselves on a scale ranging from 1 = *to a very small degree* to 7 = *to a very high degree*. For example: "I've recognized new aspects of my opinions"; "I've learned something about myself"; "I became more aware of my needs" ($\alpha = .88$). See Appendix A for items list and more information on scale development.

Attachment Style. The same ECR short version used in Study 3 yielded acceptable reliabilities for avoidance and anxiety (α 's = .80 and .75, respectfully). The scales were centered about their mean.

Results and Discussion

Table 6 shows the means, standard deviations and correlations among the variables used in Study 4.

Table 6

Study 4: Means, SDs and Correlations of Study Variables.

Variables	<i>M</i>	<i>SD</i>	1	2	3
1. PS	4.00	1.71			
2. Self-Exploration	3.81	1.25	.76**		
3. Avoidance	3.34	0.96	.02	.06	
4. Anxious	3.39	1.00	.00	.12**	.19**

Note. $N = 456$.

** $p < .01$

The effects of listening (AL, neutral, no listening) and the relation of the listener to the speaker (manager, peer or stranger) on PS were tested with a two-way ANOVA. As expected (H1), listening increased PS, $F(2,447) = 479.51$, $p < .01$ more in the AL condition reporting, $M = 5.39$, $SD = 0.95$, than in the neutral

condition, $M = 4.45$, $SD = 1.11$, $d = 0.91$, and dramatically more than the no listening condition, $M = 1.76$, $SD = 0.68$, $d = 4.39$.

To test H2 whether PS mediates the relation between listening and exploration, regression analysis predicting self-exploration was conducted, entering dummy codes of experimental condition (d1=listening, d2=no listening) in the first block and adding PS in the second block. The regression results can be seen in Table 7. The variance explained in the first model is 26% and 62% is in the second model, that is a 36% increase in explained variance, $F(1, 452) = 425.78$, $p < .01$.

Table 7
Self-exploration as predicted by experimental condition (dummy coded) and PS

Model		<i>B</i>	<i>SE</i>	β	<i>t</i>	<i>p</i> <
1	d1	.36	.12	.13	3.02	.01
	d2	-1.26	.12	-.45	-10.28	.01
2	d1	-.36	.09	-.13	-3.89	.01
	d2	.81	.13	.30	6.07	.01
	PS	.77	.04	1.06	20.63	.01

As can be seen in Table 7 the PS coefficient is higher than 1 which raises concern regarding a suppression effect. Since the suppression effect was not theoretically hypothesized it is likely to be an *empirical* suppression that may occur in 50% of the time (Shrout & Bolger, 2002). In these cases it is recommended to use an indirect analysis using bootstrap method (Shrout & Bolger, 2002). Mediation analysis using bootstrap analysis (MacKinnon et al., 2002 ; Preacher & Hayes, 2008) showed

significant indirect effect of PS, indirect effect = 1.31 , CI95%LL = 1.15 , CI95%UL = 1.47. Again the value of the indirect effect is higher than 1 and is significant.

Therefore, the interpretation of these results should be made with caution.

To test H4 that listening effect on PS is moderated by avoidant attachment style, linear regression was conducted. Dummy coded variables were calculated (d1: 1=listening, 0=else and d2: 1=no listening, 0=else). The interaction between experimental condition and avoidance attachment style was found to be significant, as can be seen in Table 8.

Table 8
Regression of Listening Experimental Condition and Avoidant Attachment Style on PS

	<i>B</i>	<i>SE</i>	β	<i>t</i>	<i>p</i>
(Constant)	4.45	0.07		65.65	.01
d1	.95	0.11	.25	8.78	.01
d2	-2.68	0.11	-.70	-24.24	.01
Avoidance	-.15	0.07	-.08	-2.02	.04
d1*avoidance	.03	0.12	.01	.23	.82
d2*avoidance	.25	0.11	.01	2.26	.03

Simple slopes analysis (shown in Table 9) reveals that "no listening" slope is positive (i.e., the higher the avoidance the higher is the PS) whereas in the "neutral conversation" and "listening" conditions the slope is negative (i.e., the higher the avoidance the lower is the PS).

Table 9

Simple slope analysis of avoidance on PS in experimental condition

	<i>B</i>	β	<i>SE</i>	<i>t</i>	
No Listening	.11	.06	.16	1.77	.08
Neutral	-.15	.08	-.12	-1.76	.08
Listening	-.12	.09	-.12	-1.34	.18

No such effect was found with anxious-attachment style, $F(2,450) = .21, p = .81$. Attachment styles also did not interact with listening conditions in affecting self-exploration (for avoidant: $F(2,450) = .08, p = .92$; for anxious $F(2,450) = .74, p = .48$).

To test if there were differences in PS as a function of the relation of the listener to the employee (manager / co-worker / stranger), two way ANOVAs with listening type, listening relations and their interaction was conducted. There were neither relations type main effect, $F(2,447) = 0.46, p = .63$ nor listening by relations type interaction effect on PS $F(2,447) = 0.38, p = .82$. The same results for self-exploration main effect, $F(2,447) = 0.11, p = .89$ and for listening by relation type interaction, $F(2,447) = 2.02, p = .09$.

Study 4 partially supported the hypotheses. Specifically, H1 was supported as the listening manipulation strongly affected PS. The level of PS was extremely low in no-listening condition and extremely high in AL condition, while the effect of the

neutral condition was in between these extremes. However, the effect of the neutral condition on PS was closer to the effect of AL than to the effect of no-listening condition. This may suggest that people assume that they receive good listening, if no other information is provided. That is, relative to a neutral condition, good listening increases PS to a much smaller degree than poor listening decreases PS. These differences may shed light on the effect sizes in the lab studies. In my lab studies the AL manipulation attempted to increase PS relative to a neutral listening condition. In contrast, in other lab studies of the effects of listening on narration quantity and quality (e.g., Bavelas, 2000; Pasupathi & Hoyt, 2009), the control condition is normal listening and the experimental condition is distracted listening. It might be that relative to a neutral, normal, and commonplace level of listening, it is easier to destroy the experience (by distracted listening) than to create AL.

PS was found to partially mediate the relation between listening and self-exploration (H2). That is that when employees feel safe they can have the opportunity to learn new things and explore their selves. Yet, listening may increase self-exploration even if PS is held constant. Thus, listening may have other paths through which it affects self-exploration. One possible explanation can be that listening affect exploration also via cognitive mechanism as well and not only emotional mechanism as described here (PS). It could be that by listening and asking questions, the speaker can remember and think of other aspects of self and therefore to increase self-exploration. For example, it was shown that listener responds (cognitive vs. affective) can lead to different results for the speaker (Nils & Rime, 2012).

As for the moderating role of avoidance attachment style (H4); the finding imply that the origin of the interaction is the difference between no listening condition and the neutral condition (see Table 9). These findings are in line with attachment

theory that avoidant people tend to avoid interpersonal interactions that may create intimacy. However, the results are partially inconsistent with the research hypothesis because no slope difference was found between the neutral condition and the listening condition. One possible explanation is that for people with avoidant-attachment style the mere act of imaging interpersonal communication situation reduces PS. That is, in scenarios (unlike real interactions), it may be experienced equally uncomfortable to engage in a neutral conversation and to be listened to.

Because Study 4 scenario experiment supported H1 (the effects of AL on PS) and H2 (PS mediates the relation between AL on exploration) but failed to support some aspects of H4 (avoidance-attachment style moderation), an additional lab study was design to address all research hypotheses. One limitation of lab studies 1 & 2 was that measures were taken after both listener and speaker took turns therefore confounding speaker and listener roles. Therefore, the goals of Study 5 were: (a) test all research hypotheses (b) overcome the problem of confounding AL effect with speaker and listener role in Study 1 and Study 2, and (c) increase statistical power

Study 5

Method

Participants. Undergraduate students from the School of Business Administration at the Hebrew University of Jerusalem participated ($N = 144$) in an experiment for credits. Participants age ranged from 18 to 28 and 62.5% were male.

Procedure. All participants were encouraged to fill out an online ECR questionnaire prior to arriving to the lab. Upon arrival to the lab, participants were randomly assigned to either a listening or a free conversation condition. In both conditions, participants were randomly assigned to pairs. Once paired, participants were asked to get acquainted with their partner for one minute. Following the

acquaintance, they were asked to talk about a significant experience they had for six minutes. Participants in the speakers' role had exactly three minutes to tell their significant event. After three minutes the speakers were asked to end the conversation and to fill out questionnaires containing the dependent variables. At that time, the listener was waiting. Only after speakers completed taking the questionnaire they switched roles for three more minutes. After the second set of three minutes, participants were asked to end their conversations. In the listening conditions, participants received the following instructions:

Each of you will tell his/her research partner about a significant experience. This research focuses on listening processes. Therefore, when you are in the listener role do that with full attention and respect for the speaker. Try to wait patiently for the speaker. You are welcome to show interest and ask questions such as: "What did that experience do to you?"; "How did it influence you?"; and so on. Importantly, when you are in the role of a listener try to avoid saying anything related to your own feelings or thoughts, and do not mention things about yourself. That is, just try to understand your partner.

In the free conversation (control) conditions, participants received the following instructions:

Each of you will tell his/her research partner about a significant experience. This research focuses on conversation processes. We are interested in day-to-day conversations. Therefore, try to converse as you usually do. That is, when you are in the speaker role, speak as you usually do and when you are in a listener role, listen as you usually do.

Measures. The measures used here were the same as those used in Study 4 and yielded again acceptable reliabilities for *PS* ($\alpha = .91$), *self-exploration* ($\alpha = .82$),

closeness (closeness and liking scales were highly correlated, $r = .78$ therefore one scale was constructed with $\alpha = .89$), and *attachment style* (avoidant-attachment style, $\alpha = .87$ and anxious-attachment style, $\alpha = .90$, correspondently).

Results and Discussion

Table 10 presents means, standards deviations and intercorrelation of variables in Study 5.

Table 10
Study 5: Means, SDs and Correlations of Study Variables.

Variables	<i>M</i>	<i>SD</i>	1	2	3	4
1. PS	5.26	0.90				
2. Closeness	4.55	1.94	.71**			
3. Exploration	3.30	1.16	.44**	.48**		
4. Avoidance	3.36	0.81	-.03	.05	.06	
5. Anxious	3.05	0.95	-.23**	-.21*	.03	.00

Note. $N = 70$.

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

The Intra-Class Correlation (ICC) between PS in the dyads ($ICC = .19$) did not justify DDA.

Contrary to H1, AL did not increase PS compared to free conversation, $d = -.07$, $p = .64$ with no order effect, $F(1,132) = 0.68$, $p = .41$. Consistent with H2, PS and self-exploration were correlated, $r = .44$, $p < .01$. Also, AL did not affect closeness, H3: $d = -.13$, $p = .61$. These results suggest that the listening manipulation was not effective.

To test moderation effect (H4) regression analysis was conducted. The effect of listening on PS was marginally moderated by avoidant attachment style in the predicted direction, $t_{\text{interaction}}(137) = -1.53, p < .06$ as can be seen in Figure 5.

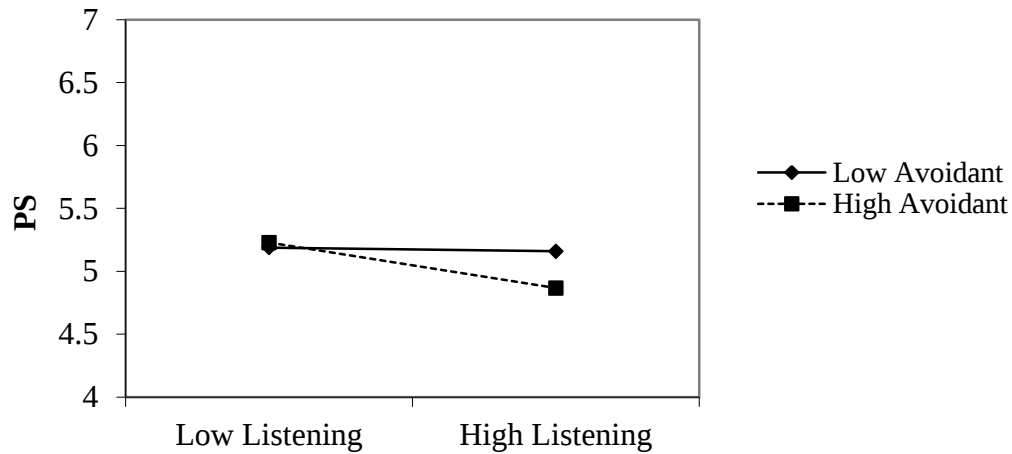


Figure 5. Psychological safety as a function of experimental condition (listening vs. free conversation) and avoidance scale one *SD* above and below mean.

Calculating simple slopes indicate that while the slope of control condition is not significant, $\beta = -.05, p = .73$ the slope of listening is marginally significant, $\beta = -.37, p < .08$; one tailed. No such interactions were found in predicting self-exploration, $t_{\text{interaction}}(137) = 0.52, p = .61$ or closeness, $t_{\text{interaction}}(137) = -.10, p = .92$. Also, no significant interaction was found with anxious attachment style on PS, $t_{\text{interaction}}(137) = 1.41, p = .16$, self-exploration $t_{\text{interaction}}(137) = -.70, p = .49$, or closeness, $t_{\text{interaction}}(137) = 0.44, p = .66$.

The research hypotheses were not supported by the experimental manipulation in Study 5. There are several possible explanations for these findings. First, the effect of AL on PS in lab setting was found to be weak to moderate (Study 1 and Study 2). It is statistically possible that the experimental manipulation of listening is not strong

enough and therefore the effect sometimes is significant and sometimes, as in this case, is not. Second, the method used in Study 5 is different from the method used in Study 1 and Study 2. In earlier studies, all participants filled out the questionnaires after six minutes. It may be that though they were asked to respond on their experience as speakers, their answers were also influenced by the listener role they played. In Study 5 speakers filled out the questionnaire immediately after they were listened to. Therefore there are at least three different possibilities that can account for the results: (1) The role of a listener influenced the experience (though there was no order effect) as in the role of a listener (2) When the conversation is interrupted in the middle (exactly after three minutes) the listening experience is damaged. (3) The weak effect was not observed due to low statistical power. Therefore, my goals in Study 6 were to test if the interruption of the conversation influenced the speaker experience and to take another step in differentiating speaker role from listener role. In addition, I added one item of manipulation check to test perceived listening.

Study 6

Method

Participants. Undergraduate students from the School of Business Administration at the Hebrew University of Jerusalem ($N = 128$) participated in an experiment for credits. Participants' age ranged from 18 to 29 and 51% of the participants were males.

Procedure. All participants were encouraged to fill out an online ECR questionnaire prior to arriving to the lab. Upon arrival to the lab, participants were randomly assigned to one of four conditions in a 2 (listening vs. free conversation) x 2 (interrupted vs. uninterrupted) experimental design. In all conditions, participants were randomly assigned to pairs. Once paired, participants were asked to get

acquainted with their partner for one minute. In the interrupted condition, the listening vs. free conversation manipulation replicated the procedure used in Study 5 whereas in the uninterrupted condition, the listening vs. free conversation manipulation replicated the procedure used in Study 2.

Measures. The same measures used in Study 5 were used here with acceptable reliabilities: *PS* ($\alpha = .91$), *self-exploration* ($\alpha = .77$), *closeness* – closeness and liking scales were highly correlated ($r = .65$) therefore one scale was built ($\alpha = .92$), *ECR* - (avoidance $\alpha = .89$ and anxiety $\alpha = .90$).

A manipulation check. To test the listening manipulation, speakers were asked directly if they felt they were listened to on a single Likert scale on a 1 to 7 points.

Results and Discussion

Table 11 presents means, standards deviations and intercorrelation of variables in Study 6.

Table 11

Study 6: Means, SDs and Correlations of Study Variables.

Variables	<i>M</i>	<i>SD</i>	1	2	3	4	5
1. PS	5.43	0.85					
2. Closeness	4.95	1.20	.52**				
3. Exploration	3.32	1.10	.37**	.43**			
4. Avoidance	3.24	0.90	-.17	.00	.13		
5. Anxious	2.93	0.98	-.02	-.12	.09	.17	
6. L _{check}	6.17	1.03	.59**	.44**	.31**	-.16	.15

Note. $N = 70$.

L_{check} - Listening Manipulation Check

** $p < .01$

The ICC of .17 for PS did not justify further dyadic analyses. Manipulation check showed that no difference was found in the way participants felt they were listened to, $d = .16$, $p = .46$. Accordingly and contrary to H1, listening was not found to increase PS compared to free conversation, $d = .03$, $p = .88$. No effect of experimental condition was found on closeness as well, $d = -.09$, $p = .60$. These results suggest that listening manipulation was not effective.

Consistent with H2, PS and self-exploration were correlated, $r = .37$, $p < .01$. No order effect (differences between the first or the second speakers) was found $F(3,120) = 0.34$, $p = .80$ and no three-way interaction (Listening condition X Interruption X Order) $F(1,120) = 0.57$, $p = .77$.

The interruption manipulation neither affected PS, $d = 0.12$, $p = .49$ nor closeness, $d = 0.15$, $p = .39$. The interaction between AL and interruption was not significant, $F(1, 124) = 2.69$, $p = .10$. Also, there was no gender difference in PS, $d = .06$, $p = .72$.

To test moderation effect (H4) regression analysis was conducted. As expected, the effect of listening on PS was moderated by avoidant attachment style (see Table 12).

Table 12

Regression Analysis of Listening Experimental Condition and Avoidance Attachment Style on Psychological Safety

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	5.42	.08		72.63	.01
Listening					
Experimental Condition	-.03	.08	-.03	-.38	.70
Avoidance	-.22	.09	-.23	-2.49	.01
Condition*					
Avoidance	-.19	.09	-.20	-2.76	.03

The interaction is plotted in Figure 4.

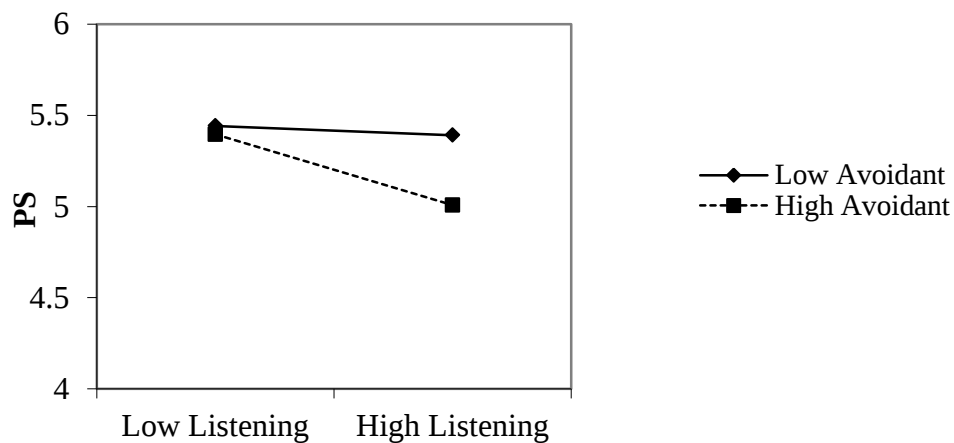


Figure 6. Psychological safety as a function of experimental condition (listening vs. free conversation) and avoidance scale one standard deviation above and below mean.

Calculating the simple slopes indicate that while the slope of PS on avoidant-attachment style was not significant in the control condition, $\beta = -.05, p = .70$, it was significant in the listening condition, $\beta = -.43, p < .04$, one tailed, as predicted. The interaction of AL and avoidant attachment style on self-exploration was not significant, $t_{interaction} (124) = -.32, p = .75$ and on closeness was found to be marginally significant in the predicted direction, $t_{interaction} (124) = -1.56, p < .06$. No interaction effect was found for anxious-attachment style in moderating the effects of listening on PS, $t_{interaction} (124) = .69, p = .49$, self-exploration $t_{interaction} (124) = -.37, p = .71$ or closeness $t_{interaction} (124) = .42, p = .68$.

Because no main effect was found for the experimental condition, further analyses were conducted to test the hypotheses using the manipulation check item "Did you feel that you were listened to?" $M = 6.17, SD = 1.03$. The purpose of the analysis was to test research hypotheses in a correlational design. Listening manipulation check indeed predicted PS, $\beta = .52, p < .01$, consistent with H1. PS also predicted self-exploration, $\beta = .48, p < .01$. Regressing self-exploration on both the listening manipulation check and PS suggested that PS predict self-exploration, $\beta = .46, p < .05$ but the listening manipulation not $\beta = .10, p = .45$, in support of the mediation suggested in H2. Mediation analysis using bootstrap analysis (MacKinnon, Lockwood, Hoffman, West & Sheets, 2002) showed the same patterns, indirect effect of PS = .24, CI95%LL = .07, CI95%UL = .46. Listening was also found to predict closeness $\beta = .44, p = .01$ in support of H3. Manipulation check of listening did not interact with attachment avoidance in affecting PS (inconsistent with H4).

Taken together, the listening manipulation used in Study 5 and Study 6 was not effective. It may be that when two strangers encounter, it takes more than three

minutes and simple instruction of listening to produce PS and closeness. Though, Study 1 and Study 2 support such a possibility, the effects were weak and therefore, statistically, do not always appear. Therefore, Study 7 was design to tackle those issues and retesting the research hypotheses (H1 to H4) by applying a stronger-listening manipulation.

Study 7

Method

Participants. Undergraduate students from the School of Business Administration at the Hebrew University of Jerusalem ($N = 46$) participated in an experiment for credits or for payment (40 NIS). Participants mean age was 23.09 ($SD=1.47$) and 50% were male.

Procedure. All participants were encouraged to fill out an online ECR questionnaire prior to arriving to the lab. Before arrival to the lab, participants were randomly assigned to one of two conditions (listening condition or free conversation condition) and into either a role of a listener or of a speaker. To manipulate listening, participants assigned to the listening role received either a short training on listening or a short training on meta-analysis (control). The training included reading a paragraph, watching a short movie and reading aloud instruction for the conversation. After training the listeners, speakers entered the lab and both listeners and speakers filled out a writing task. Next, participants were randomly assigned to pairs. Once paired, participants were asked to get acquainted with their partner for one minute. The speakers then talked with the listener on a significant experience they had for exactly five minutes. After ending the conversation participants in the speaker role filled out online questionnaires.

In the listening condition, the reading part was as follow:

Influential psychologists considered active and empathic listening as a powerful source for change within the speaker's self. Active listening is characterized by the listeners' intent to support the speakers, trying to understand their point of view and let them know they are understood. Research shows that quality listening is an important skill with many advantages. When listeners focus on the speakers, they may discover new information and experience positive emotions toward that person. The ability to listen is especially valuable in the business environment. A listening manager is perceived as a transformational leader and a role model. Moreover, the employees of a listening manager are more committed and happier with their work, trust their managers and share critical knowledge with him or her. Another benefit of listening is in the social arena, where an empathic listener experience trust in his or her social relations, reports better romantic relations and positively experience his or her environment.

The writing assignment was as followed:

Truly good listeners are those who believe in the strengths and capabilities of the one they listen to. Please remember a situation where a person you do not know well impressed you in a good way. Try to remember his or her behaviors or any other positive aspect. Write down the details of the situation and what did you learn about that person.

Later, a short movie (in Hebrew) on listening was presented to the participants (<http://www.youtube.com/watch?v=gwP-P8tPQzk>) and last, they received the following instructions:

Based on what you have learned, you are invited to practice being a listener for another person. To enable the speaker to benefit the most, there are several

behaviors and ideas that you may want to consider: Try hard to be present in the listening situation, focus and be attentive to your partner and his or her story. Keep your head open and remain curious about the speaker with no prior assumptions toward him or her. Try to understand the point of view and be empathic. Let your partner keep the story without being judgmental or add to the story from your experience or knowledge, such as: "you are right / wrong..." , "I think you should do...". However, you can communicate your understanding with your body language, reflection and open questions such as: "If I understood you correctly.."; and "Can you give an example?"

In the control condition, the reading part was as follows:

Statisticians and scientists tend to be careful with the findings of single studies since most studies are conducted on small samples. Many papers in journals or popular mass media (news, daily papers and so on) refer to a single study and therefore their results may be questionable. One way to deal with that problem is a statistical method called "meta-analysis." Meta-analysis combines together as many studies as possible pertaining to the topic of interest. Using some statistical tools, the effects of studies are calculated across many participants (thousands and more). The meta-analysis takes into account both effect size and sample size for each single study. The effects are weighted by the sample size. Therefore, we can be more confident of the results and conclusions.

The writing assignment was as follows: Meta-analysis is a statistical method to analyze several studies which enable a more reliable result compared with separated studies. You are asked to write down the main reasons for using meta-analysis and not a single study". Later, a short movie (in Hebrew) on meta-analysis was presented to

the participants (<http://www.youtube.com/watch?v=gwP-P8tPQzk>). Last, they received the following instructions: "Please run the conversation as you usually do. Talk and converse as you converse on a daily basis".

Measures.

The same measures used in Study 5 and Study 6 were used here with acceptable reliabilities: *PS* ($\alpha = .90$); *self-exploration* ($\alpha = .77$); *closeness scale* ($\alpha = .93$); *ECR* (avoidance $\alpha = .87$ and anxiety $\alpha = .92$). The same *manipulation check* used in Study 6 was used here as well.

Results and Discussion

Table 13 presents means, standards deviations and intercorrelation of variables in Study 7.

Table 13

Study 7: Means, SDs and Correlations of Study Variables.

Variables	<i>M</i>	<i>SD</i>	1	2	3	4	5
1. PS	5.25	0.84					
2. Closeness	4.68	1.29	.69**				
3. Exploration	3.55	1.03	.14	.23			
4. Avoidance	3.25	0.88	-.46**	-.38**	.07		
5. Anxious	3.51	1.06	-.30**	-.05	.31*	.19	
6. L _{check}	6.24	0.92	.57**	.41**	.04	-.51**	-.16

Note. $N = 46$.

L_{check} - Listening Manipulation Check

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

Manipulation check, $M = 6.24$, $SD = 0.92$ showed no difference between the experimental conditions, $d = .04$, $p = .88$. Accordingly, listening was not found to increase PS compared to free conversation, $d = .08$, $p = .78$. No effect of experimental condition was found on closeness as well, $d = -.11$, $p = .53$. These results suggest again that listening manipulation was not effective. The ICC within dyad for PS was .59. ICC for closeness was 0.12 and ICC for exploration was .01.

Consistent with H2, PS and self-exploration were correlated (see Table 13). To test moderation effect (H4) regression analysis was conducted. The effect of listening on PS was not moderated by avoidant-attachment style $t_{\text{interaction}}(41) = -.73$, $p = .47$ or exploration, $t_{\text{interaction}}(41) = .76$, $p = .45$ or closeness, $t_{\text{interaction}}(41) = -.21$, $p = .84$. Also, no moderation effect was found for anxious attachment style on PS $t(41) t_{\text{interaction}} = -.84$, $p = .41$ or closeness, $t(41) t_{\text{interaction}} = -.81$, $p = .43$. Unexpectedly and contrary to previous findings of the current research, moderation effect was found on self-exploration, $t(41) t_{\text{interaction}} = -2.51$, $p < .02$ such that anxious people had higher exploration in the control group than less anxious people while in listening condition no difference was found.

Because no effects were found for the experimental manipulation, further analyses were conducted using the manipulation check item "Did you feel that you were listened to?". The purpose of this analysis was to test research hypotheses in a correlational design. Listening manipulation check indeed predicted PS, $\beta = .57$, $p < .01$, consistent with H1. PS did not predicted self-exploration, $\beta = .14$, $p = .34$, inconsistent with H2, but in the predicted direction. Listening manipulation was found to predict closeness, $\beta = .41$, $p < .01$ in support of H3. Manipulation check of listening

marginally interacted in the predicted direction with attachment-avoidance style in affecting PS $t_{\text{interaction}}(41) = -1.50, p = .07$. The interaction is plotted in Figure 7.

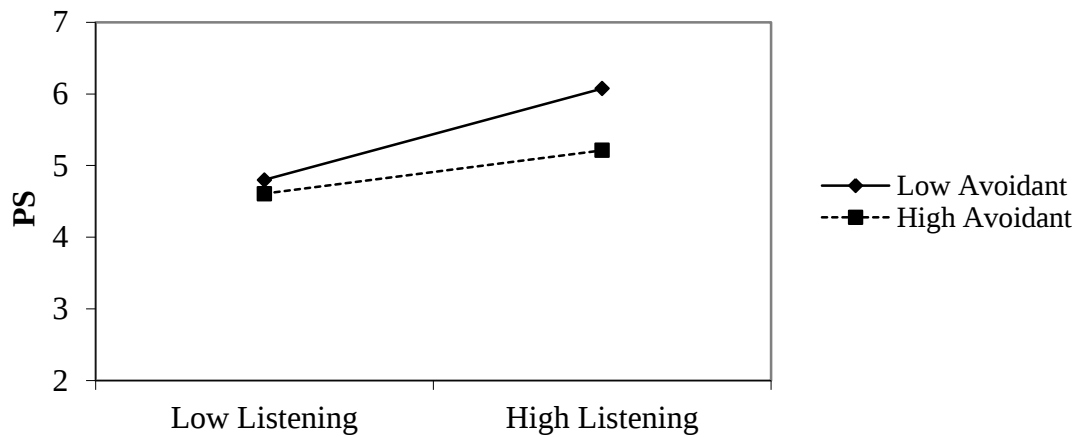


Figure 7. Study 7: Psychological safety as a function of listening manipulation check and avoidance scale one standard deviation above and below mean.

The different listening manipulation used in Study 7 did not create the expected experience of listening. Though listeners in the listening condition received a short training on listening, it seems that it was not enough to produce a better listening experience for the speakers to report compared to control group. In line with the results of Study 5 and Study 6, one possible conclusion is that to teach people on how to listen is challenging though findings from a meta-analysis support the idea that listening is trainable, $d = 1.32$; $lcl = .69$, $ucl = 1.96$; Kluger, in preparation.

Summary of the Studies

In Table 14, I summarize the degree of support for four hypotheses across the seven studies. As can be seen in Table 14, H1 was supported in both experimental and correlational designs. H2 and H3 were supported only in some studies and H4 was almost consistently supported.

Table 14

A Summary of Support of the Research hypotheses

Study	N	H1	H2	H3	H4a
Study 1	66	Y	-	-	Y (marginal)
Study 2	70	Y	Y (marginal)	Y (marginal)	Y
Study 3	129	Y	-	-	Y
Study 4	456	Y	Partial	-	Y
Study 5	144	N	Partial	N	Y (marginal)
Study 6	128	Partial	Partial	Partial	Y
Study 7	46	Partial	N	Partial	Partial

Note: Y = hypothesis was supported. N = hypothesis was not supported. - =

hypothesis was not tested. Partial = hypothesis was supported using correlation with the listening manipulation check.

To further facilitate interpretation of the results of the effects of listening on PS and the moderating role of attachment style on all seven studies, I first tabulated all effect sizes pertaining to our hypothesis (see Table 15). The effect sizes pertaining to H1 are reported either as d statistics, for the experimental effects, or as r , for the correlational effects. To simplify the comparisons between the experimental effects and the correlational effects, I also report the d values of the correlational effects (by applying r to d conversion). Note that in Study 6 and Study 7, I reported both the experimental effects and the correlations with the listening manipulation check. Also note that to provide a conservative estimate of the effects of the scenario experiment (Study 4), I reported two separate effects: one for neutral listening minus the poor listening, and one for the good listening minus the neutral listening. The effect sizes pertaining to H4 are interaction effects in regressions predicting psychological safety

from listening, avoidance-attachment, and their interaction. These interaction effects are reported as "standardized" β 's. "Standardized" β 's are the effect sizes obtained in a regression where the two predictors are first standardized (converted into Z scores), and the cross-product of these standardized scores serve as an interaction term. "Standardized" β 's eliminate bias that is found in standardized coefficients that are based on raw-interaction terms (Wen, Marsh, & Hau, 2010).

Table 15

A Summary of Support of the H1 and H4 Research hypotheses

Study	H1 – listening effect on psychological safety			H4 – avoidance-attachment style interaction with listening	
	Design			Design	
	Experimental	Correlational		Experimental	Correlational
	d	r	d	β	β
1	0.46			-.18	
2	0.53			-.32	
3		.65	1.71		-.11
4 Control-Poor	2.93			-.06	
4 Good-Control	0.91			.01	
5	-0.07			-.13	
6	0.03	.59	1.46	-.17	-.08
7	0.08	.57	1.39	-.11	-.18

Second, I meta-analyzed the results reported in Table x, using an inverse-variance weighting (Borenstein, Hedges, Higgins, & Rothstein, 2009) and assuming a random model. A random model reflects the possibility that unknown factors are responsible for the variability in our results. In assessing the support for H1, it is clear that the research design dramatically affected the results: the laboratory effect sizes are weak, the correlational effects are strong, and the scenario experiment effects are extremely strong (if we contrast poor listening with good listening the effect is $d = 3.84 = 2.91 + 0.91$). Therefore, I meta-analyzed the laboratory experiments and the correlational effects separately. As can be seen in Table Y, the weighted-mean effect of the listening manipulation on psychological safety in the laboratory studies is very weak, $d = 0.17$, and its confidence interval includes zero. The estimate of between study variance is small, $\tau = .03$, and not significant. In contrast, the correlational effects yielded a strong listening effect on psychological safety, $d = 1.55$, where even the lower bounds of the confidence interval indicated a strong effect size, $d = 1.29$. The estimate of the variability among the correlations, $\tau = .00$, suggest no difference among the three correlational effects.

Table 16

Meta Analyses of the effect of listening on psychological safety (H1) and the moderating effect of avoidance-attachment style of the listening- psychological safety effect (H4).

	<i>k</i>	<i>N</i>	<i>d</i>	β	<i>lcl</i>	<i>ucl</i>	<i>z</i>	<i>p of Z</i>	τ	<i>Q</i>	<i>p of Q</i>
H1: Laboratory experiments	5	452	.17		-.07	.41	1.38	= .17	.03	3.95	= .41

H1:	3	303	1.55	1.29	1.81	11.77	< .001	.00	1.04	= .60
Correlational effects in <i>d</i>										
H2: All studies	8	965	-.12	-.18	-.05	3.55	< .001	.00	5.33	= .62

The meta analysis of the interaction effect was carried out in the same way as one would meta analyze correlations (Borenstein et al., 2009, pp. 314-315). In the scenario experiment, I included the two interactions of avoidance-attachment style, once with the neutral-poor listening dummy code, and once with the good-neutral listening dummy code. To avoid double weighing of the neutral conditions, I used $n/2$ in the neutral condition in calculating the inverse variance. I ignored the interactions of the manipulation check with avoidance attachment style to avoid using two effects from each study, yet this decision has no practical effect on our conclusion. As can be seen in Table Y, the inverse-variance weighted mean β was -.12, its confidence interval does not include zero, and the estimate of between studies variance is zero. In summary, across all studies and all methods there was a consistent interaction of avoidance-attachment style with listening suggesting that good listening benefits people with low avoidance-attachment style more than it benefits people with high avoidance-attachment style.

This "standardized" interaction-effect size (H4) of -.12 is small, but this effect at the extremes of listening and avoidance-attachment style could be dramatic. For example, this result suggests that a very good listener (e.g., 2 *SD* above the mean) will elicit from people very low on avoidance-attachment style (e.g., 2 *SD* below the mean) psychological safety that is +0.44 *SD* $(-.12 \times 2 \times -2)$ above the psychological safety of people who are at the mean of avoidance-attachment style. In contrast, such

a good listener will elicit from people very high (e.g., 2 *SD* above the mean) on avoidance-attachment style psychological safety that is -0.44 ($-.12 \times 2 \times 2$) below the psychological safety of people who are the mean of avoidance-attachment style. That is, the psychological safety of a person low on avoidance-attachment style, who is being listened to by a good listener, is expected to be 0.96 *SD* ($0.44 - (-0.44)$) higher than the ($-.12 \times 2 \times 2$) of a person high on avoidance-attachment style.

General Discussion

Listening Increases the Speaker's Sense of Psychological Safety

Listening was found to increase PS in the majority of the studies: In Study 1 and Study 2, an experimental manipulation of listening in the lab increased PS. In Study 3, perceived managers' listening was highly correlated with employees' PS. In Study 4, using a scenario experiment imagined listening increased PS compared with no listening and normative conversation. In Study 6 and Study 7, although the listening manipulation was not effective, the degree to which speakers felt listened to (manipulation check) was highly correlated with PS. Taken together; the empirical findings support Rogers's idea that listening creates an atmosphere of safety. Rogers's theory originated from a clinical context; the current research generalizes the theory to day-to-day interactions, since in the current study, participants were either strangers encountering each other for a conversation, or employees in a work setting. Another contribution of the current study is the quantitative methodology, as opposed to clinical observation, used to test Rogers's theoretical arguments regarding the effects of listening on PS.

PS is associated with a variety of positive personal and work outcomes such as exploration (this topic will be elaborated below), engagement (Kahn, 1990) and manager face giving in dealing with errors at work (Tynan, 2005). The current study suggests that the act of listening provides a sense of PS to the conversation partner. Below is a theoretical discussion of the possible connection between PS and a secure base, and second, the implication of managers' listening for team PS.

Listening and secure base

In theory, the concept of PS is similar to a different theoretical construct: *secure base*. Although people's attachment styles are relatively stable, both theory and evidence suggest that attachment style can be influenced contextually. The sense of a *secure base* (in this case: whenever people feel a sense of security which enables them to free resources for other behavioral systems such as exploration) can be activated contextually, experimentally, and by various interventions (Mikulincer et al., 2001; Mikulincer & Shaver, 2007). It seems then that PS and secure base are similar in some ways such as: (a) both describe the psychological feeling of being safe (b) both enable exploration of self or environment and (c) theoretically, both can be activated momentarily, as reflected, for example, in a measure of state attachment (Gillath, Hart, Nofle, & Stockdale, 2009). More profoundly, according to Bowlby (1988), one of the therapist's roles is to provide a secure base for the patient. This is somewhat similar to the therapist's role in Rogers's theory, who needs to provide the client with an atmosphere of safety for the development of the client self. Previous research showed that a secure base can be activated experimentally with various priming and experimental manipulations (Mikulincer et al., 2003; Mikulincer & Shaver, 2007). As such, it can be hypothesized that active listening, when done well, may momentarily

activate the speakers' secure base. This hypothesis can be address directly in a future research. For example, a study may be conducted on whether AL vs. free conversation or no listening at all will increase state secure base measures such as SAAM (Gillath et al., 2009).

Team Psychological Safety

PS has been researched not only in clinical work (Rogers, 1951; Miller & Rose, 2009), but also in a work environment, mainly with teams (Edmondson, 1999; Edmondson, Bohmer, & Pisano, 2001; Edmondson & Nembhard, 2009) and in an organizational context (Baer & Frese, 2003). The research on PS in teams showed that when team members experience PS they tend to be more engaged (Nembhard & Edmondson, 2006), learn better (Edmondson, 1999) and be more creative (Kark & Carmeli, 2009). According to inclusive leadership theory (Carmeli et al., 2010; Nembhard & Edmondson, 2006), some managerial behaviors such as inviting input from others (a type of listening) and including employees in discussions were found to be associated with PS. Therefore, the current study does not only help us understand the psychological effect that being listened to has on the individual but hints that managers' listening behaviors may contribute to team PS. Because individual PS and team PS are somewhat different concepts and reside at different levels (individual and team), there is a question whether managers' listening behaviors contribute to team PS. There are at least two reasons to assume that it does: (a) Study 3 results showed high correlation between perceived manager's listening behaviors and employee PS. A similar pattern was seen experimentally induced in Study 4; (b) A preliminary study ($N = 18$ team managers, 45 team members) supports that hypothesis (Castro & Lloyd, in preparation) when both managers and employees

rated the manager's listening behaviors, team PS, and creativity. Specifically, a multilevel analysis (using MPLUS for standardized coefficient) revealed that employees' perceptions of their managers' listening skills predicted team creativity ($\beta = 0.70, p < 0.01$) as well as team PS ($\beta = 0.54, p < 0.01$). Since the effect of listening on PS is weaker than on creativity it seems that PS was not fully mediated listening effects on creativity. Future research can increase our knowledge as for applying listening to increase team PS.

Applying listening - simple but complex

Though listening was found to increase PS in four studies, in Study 5 through Study 7 the listening manipulation failed to lead speakers the sense of being listened to, consequently affecting PS. It can be assumed that for strangers in a laboratory setting, simple instructions on how to listen do not always produce higher PS for the speakers. Possible reasons and implications are elaborated below.

There are several possible explanations for the ineffective listening manipulation observed in Studies 5 - 7: (a) Listening is difficult to generate when two non-skilled strangers encounter each other; (b) It is not simple to train people how to listen; (c) three to five minutes are not enough time for listening to build PS; and alternatively (d) when strangers encounter and listen to each other in the laboratory setting, just the fact of the listener's full attention is experienced as "good enough" listening. Each aspect is considered next:

Non skilled strangers listen to other strangers. Creating a truly safe environment may take skills and expertise, time and prior relationship. As for skills, it is no coincidence that the literature of active listening was conceptualized in a clinical

context (Rogers, 1951; Rogers, 1980; Miller & Rose, 2009). According to Rogers (1951), in order to listen in an active manner the listener must put aside his or her judgment, be empathic and hold positive regard for the other. Those elements of AL should be conducted *genuinely* and in a non-technical manner. For example, in business, Tyler (2011) analyzed web sites of AL courses and found that the content of the courses was dissociated from Rogers's theory of listening and tended to be more technical. Tyler argued that although listening has the potential to "re-enchant" organizations it must be loyal to the nature of Rogerian listening. Friedman (2005) argued that before effective listening can take place, one must meditate and relax. In the current studies, listeners were non-expert listeners, did not have the time to prepare themselves before listening (as per Friedman, 2005), and were asked to listen to strangers they had just met. It is not clear whether a short instruction on how to listen may be effective in these cases. Our empirical answer to this question is inconsistent because in Studies 1 & 2 the instruction did yield small effects while in Studies 5 – 7 it did not. These results raise two questions: a) Can people be trained to listen in a way that is perceived by others? and b) If listening is trainable, how much time is needed for such training?

Listening training. There are several studies that have tested the effects of listening training on the behaviors of the listeners. A meta-analysis conducted on the effects of listening training on participants' behavioral change showed that listening behaviors, such as paraphrasing, can be trained, $k = 8$, $N = 477$; $d = 1.32$; Kluger, in preparation. Although these effects suggested that listening behavior was changed, it is not clear whether speakers perceive or positively react to these trained-listening behaviors. It is interesting to note, that degree of AL use in newly-wed couples

surprisingly did not show an effect on marital quality (Gottman, Coan, Carrere, & Swanson, 1998). Moreover, listening is a challenging skill to learn even for clinicians (Miller & Rollnick, 2002 in Carpenter et al., 2012); therefore, training sessions usually take some time and practice to yield effective results, at least several hours in business and more in other domains (see Table 17).

Table 17

Listening training session length examples

Study	Field	Duration	Comments
Van Hasselt et al. 2006	Crisis Negotiation	2 weeks	
Rautalinko & Lisper, 2004	Business	16 hours	
	Married couples	2.5 hours/ week for six weeks	
Garland, 1981			
Ikegami et al., 2010	Business	4 hours	
Tatsumi, 2010	Business	2.5 hours	
	Business	4.5 hours	A survey of 146
Wolvin & Coakley, 1991			companies of Fortune 500 service corporations

The current research utilized only short instructions of listening that took several minutes at most. In Study 7, a more elaborate training was conducted though

relatively short in time (approx. 20 minutes). It may be that although listening is trainable, only elaborate training can be effective. When people are instructed briefly on how to listen, the effects of listening may not always be perceived by the speaker; this may explain the inconsistent effects of listening manipulation.

Time - length of conversation. The lab experiments were conducted in a setting of three to six minutes of conversations. While in Study 1 and Study 2 this was enough to produce a small effect on PS, it may not have been enough in Studies 5 – 7. One explanation can be found in Rogers's (1951) description of the process of listening in client-centered therapy. He claimed that in the beginning of the therapeutic process some clients are frustrated by the experience of being listened to. Therefore, it may take some time to get to the point of feeling safe. In many cases then, several minutes may not be enough for that process of feeling safe to take place. This is a plausible explanation for the time it takes to build PS. However, the results of Studies 1 and 2 suggest that occasionally, a sense of PS can be built in as short a time frame as several minutes. Perhaps in a short time the effects of AL on PS are minimal, and therefore not always apparent. To test this possibility, future research comparing different conversation times should be conducted.

Normative listening experienced as good enough. Pasupathi and colleagues (Pasupathi & Hoyt, 2009; Pasupathi & Rich, 2005; Pasupathi, Stallworth, & Murdoch, 1998) have shown consistently that when listeners are distracted, self-verification, narrative meaning and long term memory are damaged for the speaker. The mean difference between the experimental groups of distracted listening and normative listening of such studies yielded strong effect sizes, $k = 12$, $N = 565$, $d = .80$; $p < .01$; based on meta-analysis Kluger, in preparation. Unlike the current study

which focused on the beneficial effects of listening, the studies described above focused on the effects of distracted listening. The different focus raises a theoretical question of whether listening is a continuum that runs from destructive listening via normative listening to AL. If this continuum is valid then people may tend to feel that they receive a fair amount of listening in their day to day interactions (normative listening), especially from close friends. Three different lines of evidence support this claim: a) In the work of Pasupathi & Rich (2005), close friends were instructed to be distracted listeners, but found this to be a difficult challenge; in fact, they had to be paid *not* to listen. That is, their basic tendency was to listen to their friends; b) in Study 4, the difference between a neutral scenario and a no-listening scenario was much greater than the difference between a neutral scenario and an AL scenario. It seems that while distracted listening hurts the speaker, normative listening (especially stemming from a close relationship) can benefit the speaker. However, providing high quality listening, which differs from normative listening, is challenging since people may experience normative listening as being good enough; c) In Study 6 and Study 7 the effect of the manipulation on the manipulation check was practically nil and the mean of the scales was high, indicating that in the control group, too, people felt they were being listened to. One possible explanation is that when people are in the laboratory setting with no external distractors and receives their partner's full listening attention (no matter the instructions), they sense that they are being listened to. Moreover, since the expectation of responsiveness from strangers is low (Reis et al., 2004), the laboratory situation in both situations (one participant listen attentively to the other) exceeded expectations. Last, even in strangers new encounters situations, Sprecher et al., (2013) found that dyads in reciprocal condition (listening and disclosing conversing, as in control group) felt more liking and closeness than dyads

in non-reciprocity condition (taking turn of disclosing and listening as in listening condition).

To conclude, people may perceive normative listening as good enough and therefore the simple listening instructions did not yield a very different experience for the speaker. This may explain why listening manipulation failed in Study 5 through Study 7.

Altogether, the evidence supports the hypothesis that listening increased PS even though the manipulation of listening is not always effective. This conclusion is supported by the finding that in the studies where listening manipulation failed, the manipulation check of how participants felt when they were listened to (Study 6 and Study 7) showed a strong association with PS. Moreover, the effect of listening on PS was evident even when different methods (Study 3 and Study 4) were used.

PS and Self-Exploration

Following Rogers's idea, the current study's H2 stated that when people feel safe they are free to explore and gain access to new internal voices. The results only partially support that hypothesis. Of four studies testing the relationship between PS and self-exploration, one study corroborated it (Study 2), two studies provided partial support with the use of the manipulation check (Study 5 and Study 6), and a fourth study did not support the relationship (Study 4). Because the connection between feeling safe and exploration has theoretical roots, not only in Rogers's theory but also in attachment style (Elliot & Reis, 2003), it is possible that some features of the current research affected the findings. There are at least two possibilities: (a) feeling

safe occurs mainly with significant others (b) weak listening manipulation (as discussed above) to enable exploration.

Feeling safe with significant others. Arguments regarding the PS-exploration link can be found in two different theories: attachment theory and Rogers's client-centered therapy. Attachment theory stresses that attachment figures provide a safe place for exploration (Bowlby, 1988; Elliot & Reis, 2003; Mikulincer & Shaver, 2007). In the clinical field (Miller & Rose, 2009; Rogers, 1951), the client's feeling of safety is necessary if the client is to explore his or her conceptual self. For example, in *motivational interviewing*, the therapist expresses empathic listening to ensure that the client feels understood; thus, the client can elicit different internal voices toward a resolution of certain dilemmas. In other words, the client considers different voices within his or her self which promote healing (Miller & Rose, 2009). The PS-exploration link was also found in other domains such as career counseling (Littman-Ovadia, 2008) and motivation concepts (Elliot & Reis, 2003). These lines of research focus on relations between people who are not only in long-term relationships but also significant ones. Attachment theory concerns one's relationship to his or her attachment figures; in the case of the clinical field the relationship is to the therapist. It is possible that exploration, and specifically the ability to recognize new voices in the exploration process, needs both a significant other and time to evolve (for example much work of dialogical self was conducted in a psychotherapy context (Hermans & Dirnaggio, 2007). In the current laboratory studies participants had no significant relationships and therefore the results were weak.

Weak listening manipulation. As discussed above, in several of the laboratory studies the listening manipulation failed. Moreover, the conversation time frame was

short (3-5 minutes). If it takes more listening time to produce PS then this is surely not enough time for self-exploration. In all studies where exploration was measured, the scale means were consistently lower than PS scales. Therefore, more listening time is a plausible explanation for the weak results on exploration.

Listening builds relationship

The hypothesis that listening will increase the speaker's feeling of closeness toward the speaker (H3) was partially supported. Of four studies in which H3 was tested, in one it was marginally supported (Study 2), and in two it was partially supported using the manipulation check (Study 6 & Study 7). The same line of reasoning described above could be applied in discussing the relationship between listening and closeness. The effects were found to be small and inconsistent; therefore (a) a stronger listening manipulation or (b) listening in a close-relationship, or (c) longer conversation time, may all yield stronger effects. These aspects are described below.

Stronger AL intervention. The effects of feeling close to the listener could have been more evident using a strong listening intervention. An extreme example of the use of listening intervention can be seen in the field of crisis negotiations. In the negotiation process with terrorists or a hostage negotiation, AL is one of the major tools the negotiators apply to resolve the conflict in a nonviolent way (Van Hasselt et al., 2006). The use of AL enables the negotiators to establish relationship with the terrorists in a non-threatening way (McMains & Mullins, 2001 in Van Haselt et al., 2006). Therefore, even in extreme cases of negotiation, skilled negotiators succeed in applying AL in order to build interpersonal relationships and solve crises.

AL in close relationships. In more mundane situations, people tend to have an affinity for partners to whom they have disclosed (Collins & Miller, 1994). Although listening is evident in all type of relationships, from strangers to close relationships, being listened to and receiving responsiveness are more evident and researched in close relationships. For example, people expect higher responsiveness from close others than from distant others (Reis et al., 2004). This line of research suggests that the effects of listening on closeness and liking may be stronger in close relationships than with strangers. Indeed, one meta-analysis tested the difference between strangers and close relationships and found that social situations with strangers yielded weaker relationship between disclosure and liking compared to close relationships (Collins & Miller, 1994).

Conversation time. Because in Collins & Miller (1994) meta-analysis the dataset was small ($k=5$) and limited, the authors conducted a different study computed from laboratory data of strangers' encounters to estimate whether more time conversing would yield different results: indeed, increasing the time of conversation did increase the disclosure – liking association (Miller & Collins, 1994). Another study of strangers' encounter showed effects of closeness and liking after the speaker's disclosure. In that study, the conversation was 12 minutes long (Sprecher et al., 2013). Another study showed that closeness can be induced with strangers (Aron, Melinat, Aron, Vallone, & Bator, 1997); in this study the conversation took 45 minutes. The very short exposure to listening in the laboratory may not always be sufficient for a positive-feedback loop to build closeness in a relationship. However, a different theoretical explanation is that in the initial interactions of strangers, learning more information about the conversation partner *decreases* the liking for the listeners

(Norton, Frost, & Ariely, 2007). To conclude, upon assessment from the correlational findings of the current study, it may be assumed that in initial encounters with strangers, the feeling of being listened to is associated with closeness. However, this argument should be tested more systematically.

Previous studies have shown that people tend to like high disclosures and that this effect was moderated by avoidant attachment style; specifically, people with a high level of avoidant-attachment style were not affected by their partner's self-disclosure (Mikulincer & Nachshon, 1991). In a similar vein, in the present research I consistently found that the effects of AL are moderated by avoidant-attachment style (H4).

The moderating role of avoidant-attachment style

The current research results showed that avoidant attachment style consistently moderated the relation between AL and PS across most of the studies, using different methodologies. Thus, it seems that the general one-size-fits-all recommendation for listening may not be warranted given the potential resistance of people with avoidant-attachment style. This study exposed theoretically-driven evidence to a limitation of Rogers's approach to listening (Rogers, 1951). To my best knowledge, Rogers and other listening researchers did not indicate individual differences in the effects of AL on speakers. The current findings suggest that different people react differently to being listened to and people who are high on avoidant-attachment style tend to gain less PS than people who are low on avoidant-attachment style. These results open several interesting questions for future research: (a) How can listening increase PS for avoidant people? That is, what types of listening methods are necessary or how long does it take for avoidant people to gain PS from

listening? The issue for people with avoidant attachment style is that they feel uncomfortable with interpersonal relations and being listened to may not help them feel more safe, comfortable and close to the listeners. Their tendency to dismiss such opportunities may hinder their chances of gaining PS and becoming closer to other people, thus creating a negative-feedback loop. Another interesting question is how avoidant people will listen to others? It can be hypothesized that they will provide a poorer listening experience for their partners. There are several studies which establish individual differences in listening. For example it was found that neuroticism was associated with a listening style that minimized interaction time with others (Weaver, Watson, & Barker, 1996). Other correlational studies linking personality with listening style (Worthington, 2003; Ames, Maissen, & Brockner, 2012; Sargent et al., 1997; Villaume & Bodie, 2007) suggest that individual differences result in different listening styles. In addition, individual differences in general and attachment style in particular are considered in a theory that focuses on responsiveness (Reis et al., 2004). Responsiveness theory and research, however, are different from the current study in two important ways: (a) the definition of responsiveness is abstract and general, as Reis et al., (2004) put it:

...responsiveness should involve recognition and acceptance of just who (or what) the self (or the ideal self) is and it should also help maintain, enhance or repair wellbeing. Beyond this generalization, however, we cannot describe which actual behaviors would entail responsiveness (p. 214).

In contrast, AL can be described in concrete behaviors and instructions (for example see Wegner et al., 2010); (b) Most of the research on responsiveness focuses on close-relationships (Reis et al., 2004), whereas the current study applied to

strangers and initial interactions which are weak in communal goals (Clark & Mills, 1993). One possible theoretical integration of listening and responsiveness theories is by providing AL instructions that emphasizes responsiveness.

Another question is whether avoidant attachment style merely attenuates the benefits of AL, or could it also reverse it. In Study 3, for example, the correlation of AL with PS was strong even for respondents who are high on avoidant-attachment style, albeit weak that the correlation found for respondents who are low on avoidant attachment style. In contrast, in Study 2 for example, the manipulation of AL suggested that participants who are high on avoidant-attachment style did not gain PS from AL, and possibly even suffered a loss of PS. Thus, it could be that for people with extreme avoidant-attachment style, AL could create psychological harm. This should be explored with research designed that preselects participants on the basis of extreme ECR scores.

Research Limitations

There are several limitations to the current studies. First, there are a few more important and relevant variables that AL can hypothetically affect such as self-disclosure and well-being, so that the research scope can be expanded to understand other benefits of AL. Second, there are additional studies which may enable better understanding of the connection between listening effects and attachment style. For example, enhancing security using priming techniques before listening is hypothesized to benefit avoidant people. Third, listening interventions are varied in many ways: the amount of time spent in listening, the amount of interventions from the listeners and the participants' acquaintance (strangers or friends). As was shown, three studies failed to create listening in a laboratory setting; therefore, those

variations may affect the speakers differently and should be tested in future research on how to apply the 'active ingredients' of listening.

Implications

This research has academic and practical implications. Theoretically, empirical tests supported Rogers's ideas regarding the positive effects of active listening on PS (H1), yet at the same time, consistent evidence was found concerning the limitation of his theory when applied to people who have a high level of avoidance-attachment style (H4). Furthermore, this work expanded the work of Pasupathi (who has already shown that listening affects the self) in three ways. First, it demonstrated that listening not only influences memory and self-knowledge, it also affects the sense of safety. Second, it showed to some degree that AL effects on exploration are mediated by PS. Third, the experimental procedure used here tested AL effectiveness by encouraging the experimental group to show better AL than in normal conversation (without an intervention). It remains to be seen whether it is possible to demonstrate in the laboratory not only that poor listening has destructive effects, but that good listening, beyond normal listening practices, could create constructive effects. Overall, despite the abundant practical recommendation to use AL, relatively little is known about its psychological mechanism. The present research attempted to narrow this gap while allowing for conclusions to be drawn regarding the casual effects of listening.

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Appendix A - Measures Study

The goal of this chapter is to describe the development of three scales:
Psychological safety, self-exploration and closeness.

Method

Participants. Participants of this study were the participants of Study 5 and Study 6 (total $N = 272$).

Measures.

Psychological Safety (PS). Though the origin of the PS concept is individual (e.g., Kahn, 1990), there is a lack of individual PS measures in the literature. The most common measure is of Edmonson (1999) however (a) it relates to team PS and not to the individual-personal level; and (b) it relates to people who know each other in a specific work team. The measure includes items such as: "It is difficult to ask other members of this team for help," "No one in this team will deliberately act in a way that undermines my effort," "working with members of this team my unique skills and talents are valued and utilized". Therefore, using these items in an individual level for strangers is not relevant.

Other PS measures at the organizational level (Baer & Frese, 2003) focus on organizational climate, which is also less relevant to the current study. At the individual level, Tynan (2005) proposed a self-PS measure which is considered below. The current PS scale used also Tynan's (2005) PS scale in which relevant items were selected from *self-psychological safety* scale and were adjusted to the current study, such as: "My partner has the best intentions for me", "My partner really cared about me", and "My partner respects me." To fully capture the PS concept, more items concerning "best intentions" (Tynan, 2005) were added to the scale to

specifically measure the way the speaker felt empathy, such as “I felt my partner was empathic” and “I felt that my partner cares about me.” Additionally, other items were constructed for this research to measure directly whether or not the speaker felt secure to speak freely. Examples included “I wasn’t being judged”, and “I felt secure to talk freely.” Altogether, 19 items were built to measure psychological safety (see Table A1 for item list).

As can be seen in Table A1, a factor analysis with Promax rotation of 19 PS items yielded three factors with eigen value > 1) The first factor: *PS - Intentions* capture the "best intention" (Tynan, 2005) of the listener and included 10 items ($\alpha = .90$) such as: “My partner has the best intentions for me”, “My partner really cared about me”, “and My partner respects me”. The second sub scale *PS - Safe* captured the sense of feeling secure and understood and included seven items ($\alpha = .84$), such as: “I wasn’t being judged” and “I felt secure to talk freely”. The third factor contained four items; three of them cross loaded highly on the first two factors and were allocated accordingly. The fourth item was excluded from the study. Therefore, only two sub scales were constructed. Due to high correlation between the subscales $r = .61$; $p < .01$ they were subjected to a second-order factor analysis which yielded one factor: *Psychological Safety* where all items were loaded highly with the single factor. Thus, a single scale with 19 items was created $PS M = 5.40, SD = .95$; $\alpha = .91$. Means and standard deviations of the PS factors are presented in Table A2.

Table A1

Promax Matrix – Psychological Safety Structure Matrix

Items	Component		
	1	2	3
My partner cared about me	.83	.38	.37
My partner had good intention toward me	.82	.38	.13
I felt my partner was sensitive to me	.78	.48	.23
I felt my partner had interested in me as a person	.77	.58	.33
I felt the listener cared about me	.77	.57	.31
I felt my partner is empathic towards me	.75	.28	.35
I felt my partner was patient towards me	.70	.59	-.05
My partner respected me	.64	.52	-.03
My partner tried to understand how things look on my end	.63	.34	.52
I felt secure to talk freely	.33	.82	.16
I felt comfortable to talk	.43	.80	.29
I felt my feelings were understood	.52	.78	.21
I felt understood	.42	.77	.02
My different opinions were understood	.44	.67	.18
I felt I wasn't being judged	.46	.59	.22
My ideas became clear	.29	.57	.28
I felt relief	.20	.22	.71

I felt comfortable to discuss sensitive matters	.34	.56	.63
My partner tried to understand how it feels to be in my place	.58	.13	.63

Note. Loadings higher than .40 are typed in **bold**.

Table A2

Means and Standards Deviations of PS scale and subscales.

Variables	<i>M</i>	<i>SD</i>
PS intention	5.40	0.95
PS safe	5.25	1.02
PS overall	5.34	0.88

Self-Exploration. Because methodologies of Dialectical Self are less advanced than theory (Hermans, 2008), seven items were constructed for this study to measure the way the in which speakers felt a sense of learning some new regarding his or her self-aspects and exploring new voices within their selves: “I’ve recognized new aspects of my opinions” , “I’ve learned something about myself” , "I became more aware of my needs", "I felt I could tell more of myself than usual" , “I can recognize different voices in my story” , " and “I felt I was engaged in an internal dialogue”. Factor analysis yielded one factor as expected: Self-Exploration, $M = 3.31$, $SD = 1.13$. The scale was found to be reliable ($\alpha = .80$).

Study 2 measure was a shorten version of the Self-Exploration scale with five items: “I’ve recognized new aspects of my opinions” , “I’ve learned something about

myself" , "I became more aware of my needs", "I could say unacceptable things" , "I felt I could tell more of myself than usual".

Closeness Scale. Closeness scale was measured with two scales. The IOS closeness measure (Aron et al., 1992) is a single-item pictorial measure of closeness. Participants receive seven pairs of circles that differing in the degree of overlap among the circles and were asked to mark the pair which is best describes their degree of closeness they felt towards their experimental partner. **Closeness and liking scale:** six items were constructed to measure feeling of closeness and liking between the listener and speaker. The items used a 1 to 7 scale, from 1 – "*to a very small degree*" to 7 – "*to a very high degree*". Scales items were: "You like the other participant who listened", "You'd been interested in your partner as a close friend" "You would have liked to meet your partner again", "You would have liked to keep in touch with the your partner", "You would have chosen him or her for a similar experience". Factor analysis yielded one factor and the correlations between IOS and closeness and liking scales were high (see measure section for each study). Therefore, scales were averaged and one scale was built.

ההשפעה של המקשיב על הביטחון הפסיכולוגי של הדובר וההשפעה הממתנת של סגנון ההיקשרות של הדובר

חיבור לשם קבלת תואר דוקטור לפילוסופיה

מאת

דודן קסטרו

הוגש לסנט האוניברסיטה העברית בירושלים

מרץ 2013

עבודה זו נעשתה בהדרכתו של

פרופ' אברהם קלוגר

תקציר

במחקר הנוכחי התמקדתי בהקשבה כפי שהוגדרה על ידי קארל רוג'רס (Rogers, 1952, 1980), ושיעירתי שהקשבה פעילה גורמת לחוויה של בטחון פסיכולוגי אצל המספר (H1), שחוויית הביטחון הפסיכולוגי מתווכת את הקשר שבין הקשבה לחקירה עצמית (H2), ושהקשבה פעילה גורמת לתחושת קרבה בין המספר למקשיב (H3). לבסוף, שיעירתי שההשפעה של הקשבה פעילה על חווית הביטחון הפסיכולוגי ממותנת על ידי סגנון התקשורות נמנע (H4). ביצעתי שבעה מחקרים על מנת לבחון את השערות המחקר הללו. מחקר 1 היה מחקר מעבדה ($N = 66$) שתוצאותיו הראו כי הקשבה פעילה מעלה את חווית הביטחון הפסיכולוגי של המספר, $d = .46; p < .05$, ושהאינטראקציה עם סגנון היקשורות נמנע נמצאה כמתקרבת למובהקות, $F(1,62) = 3.37, p < .07$. מחקר 2, אף הוא מחקר מעבדה, נועד לתקף את ממצאי מחקר 1 תוך שימוש בתפעול הקשבה שונה מזה של מחקר 1. במחקר 2 ($N = 70$) נמצא כי בקבוצת הניסוי, הקשבה פעילה העלתה את חווית הביטחון הפסיכולוגי של המספר לעומת קבוצת הביקורת (שיחה חופשית), $d = .53; p < .05$, כמו כן, בטחון פסיכולוגי נמצא כמשתנה מתווך באופן כמעט מובהק את הקשר שבין הקשבה פעילה לחקירה עצמית (H2). כמו כן, נמצא כי השערת ההתערבות (H4) פועלת ברמת הדיאדה $HLM t(31) = -3.01; p < .01$. מחקר 3 היה מחקר מתאמי שנועד להגדיל את התוקף האקולוגי של הממצאים. במחקר זה ($N = 129$) נמצא הן קשר חזק בין התפיסה של מידת ההקשבה של המנהלים של המשיבים לבין חווית הביטחון הפסיכולוגי שלהם $r = .65; p < .01$, והן שקשר זה ממותן על ידי סגנון היקשורות נמנע זה $t = 1.70, p < .05$. מחקר 4 ($N = 456$) היה מחקר תרחישים שכלל 9 מצבי ניסוי במערך שטיפלל הקשבה (אי הקשבה, הקשבה רגילה, הקשבה פעילה) X סוג הקשר של המקשיב למספר (מנהל, עמית, זר בעבודה). במחקר זה נמצא כי הקשבה העלתה את הביטחון הפסיכולוגי $F(2,447) = 479.51, p < .01$, כך שהקשבה יצרה בטחון פסיכולוגי בתנאי זה יותר מאשר תנאי ניטרלי $d = 0.91$, ויותר מאשר תנאי אי הקשבה $d = 4.39$, ללא תלות בסוג הקשר של המקשיב למספר. כמו כן, סגנון התקשורות נמנע נמצא כמתערב בקשר שבין הקשבה לביטחון פסיכולוגי. ממצאים אלו תומכים בהשערות H1 ו H4. מחקרים 5, 6 ו 7 נועדו לבחון את השערות H2 ו H3 ולהתמודד עם מגבלות של ניסויים קודמים. במחקר 5 ($N = 144$) השערות

המחקר לא נתמכו, למעט השערת ההתערבות (H4). $t_{interaction}(137) = -1.53, p < .06$. מחקר 6 תוכנן לבחון את השערות המחקר תוך הוספת פריט של בדיקת מניפולציה ומערך מחקרי להבחין בין מחקרים 1 ו 2 ומחקר 5. במחקר 6 ($N = 128$) בדיקת המניפולציה הראתה שאין הבדל בין קבוצת המחקר (הקשבה) לקבוצת הביקורת (שיחה חופשית) $d = .16, p = .46$, ועל כן באופן לא מפתיע, השערות המחקר לא אוששו למעט השערה רביעית (סגנון התקשרות נמנע כגורם מתערב) - $t_{interaction}(124) = -2.76, p < .05$. יחד עם זאת, המתאמים של בדיקת המניפולציה של מידת ההקשבה תמכו בהשערות המחקר: נמצא קשר מובהק בין חווית ההקשבה לביטחון פסיכולוגי $\beta = .52, p < .01$, (תמיכה ב H1), בטחון פסיכולוגי נמצא כמתווך בין הקשבה לחקירה עצמית וקרבה בין המספר למקשיב, $\beta = .44, p = .01$. מחקר 7 תוכנן על מנת ליצור תפועל הקשבה חזק יותר בשל הממצאים של ניסויים 5 ו 6 שהראו חוסר ההשפעה של תפועל ההקשבה על משתני הניסוי. במחקר 7 ($N = 46$) פריט הבוחן את מניפולציית ההקשבה נמצא שוב לא מובהק $d = .04, p = .88$, בהתאם לכך, השערות המחקר לא נתמכו. בדומה למחקר 6, כאשר נעשה שימוש בפריט הבוחן את מידת ההקשבה במבנה מחקר מתאמי נמצא קשר בין מידת ההקשבה לביטחון פסיכולוגי $\beta = .57, p < .01$ בהלימה להשערה H1. בטחון פסיכולוגי לא נמצא כמתווך לחקירה עצמית בניגוד להשערה H2 (אם כי הקשר בכיוון המצופה). חווית ההקשבה נמצאה בקשר עם מידת הקרבה למספר $\beta = .41, p < .01$ בהלימה להשערה H3 ונמצא קשר מתקרב למובהקות בכיוון המצופה באינטראקציה שבין חווית ההקשבה לסגנון היקשרות נמנע בניבוי ביטחון פסיכולוגי $t_{interaction}(41) = -1.50, p = .07$.

לסיכום הממצאים, הקשבה פעילה העלתה את הביטחון הפסיכולוגי של המספר באופן ברור בארבעה מחקרים ובאופן חלקי בשניים אחרים. סגנון היקשרות נמנע נמצא כמתערב באופן מובהק בקשר שבין הקשבה לביטחון פסיכולוגי בחמישה מחקרים ובשניים נוספים באופן חלקי (באמצעות בדיקת המניפולציה). הקשבה העלתה את חווית הקרבה למספר באופן חלקי בשלושה מחקרים מתוך ארבעה מחקרים. לבסוף, בטחון פסיכולוגי לא נמצא כמתווך בקשר שבין הקשבה לחקירה עצמית. חשוב לציין כי בשלושה מחקרים מניפולציית ההקשבה נכשלה לייצר הבדל בין קבוצת הביקורת לקבוצת הניסוי. קשיים אלה בתפועל הקשבה עשויים להיות קשורים גם לאופן בו מאמנים ומדריכים להקשבה פעילה מחוץ

למעבדה. לכן בדיון, דנתי בשאלות לגבי השפעת הגורמים הבאים ביצירת ביטחון פסיכולוגי: אורך

השיחה, מערכת יחסים קודמת של המספר והמקשיב, והזמן הנדרש לביצוע הכשרה להקשבה.

התמונה הכללית העולה משבעת המחקרים היא שיש תמיכה אמפירית בתיאוריה של רוג'רס לגבי השפעת

ההקשבה פעילה על הביטחון הפסיכולוגי של המספר. החידוש המרכזי של עבודה זו, הוא תיעוד עקבי

של מגבלה של התיאוריה של רוג'רס. קרי, האפקט המיטיב של הקשבה פעילה על ביטחון פסיכולוגי,

נחלש ואולי מתהפך עבור אנשים בעלי סגנון היקשרות נמנע. עבודה זו, סוללת דרך להבנת המורכבות

של השפעות ההקשבה, מעבר להצהרות כלליות לגבי יתרונותיה.