  
The Hebrew University of Jerusalem  
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**The Dyadic Nature of Listening, Intimacy, Speech, and OCB-Helping in Work Teams**

**A Thesis in lieu of Master Thesis**

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Abstract

This thesis draws from a wider paper that was based on the findings from the Study conducted in the framework of this thesis ([Kluger, Malloy, Pery, Itzchakov, & Castro, 2018](#_ENREF_15)).

Good listeners create many benefits both for themselves (e.g., they perform better) and their interlocutors (e.g., they increase the wellbeing of the speaker). Less is known, however, about the antecedents of listening and whether it is a trait. In two studies performed by the Kluger’s team, initial findings showed that listening is inherently dyadic and highly correlated with intimacy. In my study, I hypothesized that these findings will be replicated in work teams, as well as show that the effects of listening are also of dyadic nature. That is, listening is correlated with intimacy, speaking ability, and with helping-organizational-citizenship behavior, especially at the dyad level. To further test these hypotheses, we employed the social relations model (SRM; [Malloy & Albright, 2001](#_ENREF_21); [Malloy & Kenny, 1986](#_ENREF_23); [Warner, Kenny, & Stoto, 1979](#_ENREF_38)). In the study teammates rated listening, intimacy, speaking ability and helping (*N =* 145, 32 groups, 526 dyadic ratings). In all studies, dyadic composition affected listening and showed dyadic reciprocity. Moreover, only among acquainted teammates was there evidence that listening is, partly, a trait. Furthermore, listening by one person correlated with intimacy (speaking ability, and helping) reported by others most strongly, or exclusively, at the dyadic level. Our work shows the utility of SRM for organizational behavior research and raises questions about what makes a good listening dyad.

**Listening as a Dyadic Phenomenon**

People who listen well create many benefits both for themselves and for their conversation partners. Good listeners improve the well-being ([Rogers, 1951](#_ENREF_33); [Rogers & Roethlisberger, 1952](#_ENREF_34)), the quality of speech ([Bavelas, Coates, & Johnson, 2000](#_ENREF_1)), and the self-knowledge of their interlocutors ([Pasupathi, 2001](#_ENREF_28); [Pasupathi & Rich, 2005](#_ENREF_29)). Supervisors who listen well have subordinates with higher job satisfaction ([Brownell, 1990](#_ENREF_3); [Lloyd, Boer, Kluger, & Voelpel, 2015](#_ENREF_18)), and lower job burnout ([Pines, Ben-Ari, Utasi, & Larson, 2002](#_ENREF_31)). Furthermore, employees who experience good listening report higher job commitment ([Lobdell, Sonoda, & Arnold, 1993](#_ENREF_19)), and organizational citizenship behavior ([Lloyd, Boer, Keller, & Voelpel, 2014](#_ENREF_17); [Schroeder, 2016](#_ENREF_36)). Given all these benefits of listening, it is important to identify antecedents of good listening in organizations, and elsewhere, and to understand the nature of the impact of listening. We propose that one powerful antecedent of good listening is a dyadic composition. The dyadic composition of listening can be exemplified where John may perceive that Mary listens especially well to him, but that neither Anne nor Bob listen well to him. Yet, Mary may perceive that although Anne listens especially poorly to her, Bob listens especially well to her. Thus, listening (good or poor) may be a property of a specific dyad. We also propose that the dyadic composition of listening entails a dyadic nature for the benefits and outcomes of listening.

When inspecting the dyadic nature of listening, one has to recognize the different means in which the speaker and listener might influence the perceived listening of the speaker. A perception of good listening could be a function of the speaker. That is, some speakers may elicit good listening from their interlocutors, or tend to perceive chronically that their interlocutors listen well to them, even if they do not. A perception of good listening could also be a function of the listener. That is, some listeners may elicit a perception of excellent listening from their interlocutors, that is, show a *trait* of a good listener. Yet, a perception of a good listening may be the result of a unique listener-speaker dyad such that the perceived listening within the dyad is well beyond what one would expect based on the speaker and listeners’ tendencies. Obviously, the perception of good listening may be a function of all of these sources, such that it may depend to some extent on the speaker, on the listener, and on the unique listener-speaker dyad. Moreover, listening may be reciprocated, such that good (poor) listeners will be paid in kind by their interlocutors. Answering these questions was the key goal of two studies held by Prof. Kluger’s team and indeed the results supported these hypotheses. The current study aimed to replicate the findings of these two studies and to deepen understanding of listening in work teams with respect to intimacy, speech and helping behavior. To help the reader distinguish between the studies already carried by Kluger’s team and the present contribution, the existing studies will be referred to as Study 1 and Study 2. Study 1 explored the sources of perceived listening among unacquainted people and Study 2 among work teams. Study 1 found that listening, as well as intimacy, have dyadic components, which were even more pronounced in Study 2. We build here on these findings. We ask what is the relationship between components of listening and components of speaking quality, as well as what is the relevance of listening components and intimacy for organizations.

Therefore, next, we address each construct (listening, intimacy, speech, and helping – OCB) and develop hypotheses and research questions.

## Listening perception and its sources

### Listening as an effect of a unique partner. Following Study 1 and Study 2, in which perceived listening had reliable dyadic component, we wish to replicate these findings. Hence:

*H1*: The perception of listening has a reliable dyadic component.

### Listening as a listener’s trait. If listening were a trait, one would expect to observe a consensus among multiple partners of a given listener. Previous research tested whether or not there is a consensus regarding listening quality (e.g., Lloyd et al., 2015; Bodie, Jones, Vickery, Hatcher, & Cannava, 2014; Goore, Mangione-Smith, Elliott, McDonald, & Kravitz, 2001; McComb & Jablin, 1984). However, only round-robin design of the type used in Study 1 and Study 2 can provide information that distinguishes between the different sources of the perception of listening (listener, speaker or the specific dyad). Study 1 showed no consensus among unacquainted people interacting for six minutes with three strangers, whereas Study 2 suggested that no more than 15% of the variance could be attributed to consensus (partner effect) in work-teams. In the current study, we wish to replicate the findings for working teams, and hence we hypothesize there will be some relatively low, but reliable, variance of the perceived listening associated with the listener.

*H2*: There will be some consensus regarding listening as a trait, but it would account for less variance than dyadic composition (H1).

### Listening as a speaker’s trait. People differ from each other in many traits that may make partners either reluctant or eager to listen to them. For example, people who are physically attractive, agreeable, well spoken, or perceived to have a higher status may increase the motivation of their listeners to pay attention and to try to understand them. Moreover, people differ from each other in their perception of how well their partners listen to them. Study 2 showed a variance of 22% associated with the actor (speaker). Thus,

*H3*: There will be some reliable variance between raters of listening (actor effect), such that some will consistently report that they are being listened to well by their teammates, and some will not, but this will also account for less variance than dyadic composition (H1).

## Reciprocities

Given that conversations are co-constructive endeavors, listening may be reciprocal. That is, people who tend to listen poorly, and ignore their interlocutors, may be paid back in kind. The opposite may happen for good listeners. Yet, reciprocity could occur in general, in a unique dyad, or in both. That is, if reciprocity is general it means that some people have a trait of being good (poor) listeners (listening as a listener’s trait) and these people tend to induce good (poor) listening from all their interlocutors. In contrast, it could be that reciprocity is unique to each dyad. That is, if a person listens uniquely well to a unique partner, that partner responds with a similar unique high level of listening. Finally, both reciprocities may exist such that good listeners are reciprocated by good listening on average by all of their interlocutors, yet when they exceed (go below) their habitual listening with a particular partner, that partner responds with a similar deviation from his or her habitual listening. In Study 2, there was evidence for reliable dyadic reciprocity (relationship covariance on listening), where the standardized relationship covariance was .48. Thus,

*H4*: There will be *dyadic* reciprocity in the perception of listening, such that when a person experiences a high quality of listening from a unique co-worker, that co-worker will also experience high quality listening from that specific person.

## Related constructs: intimacy, speech, and helping-OCB

In addition to the exploration of the components of listening, Study 1 and Study 2 also explored the components of intimacy, and the link between listening and intimacy. However, these studies did not consider the theoretical construct of intimacy, and hence question could be raised about the measurement of intimacy and its relevance to the workplace.

### Intimacy. Whereas intimacy is typically studied in the context of a romantic relationship, theories suggest that it is relevant to all relationship contexts ([Reis, Lemay, & Finkenauer, 2017](#_ENREF_32)), including the workplace ([Kark, 2011](#_ENREF_10)). [Kark (2011)](#_ENREF_10) defined *workplace* intimacy as “a form of close relatedness in which an individual shares his or her innermost emotions, experiences, and thoughts.” (p. 424). Parenthetically, it is worthwhile to note that [Kark (2011)](#_ENREF_10) hypothesized that intimacy at the workplace, at least between a supervisor and a subordinate, creates a host of organizational benefits including an increase in employees’ self-worth, self-efficacy, growth, vitality, energy, wellbeing, learning, loyalty, commitment, and cooperation.

With intimacy so defined, it is apparent that listening can create intimacy. Specifically, given that high-quality listening includes understanding the speaker, and treating the speaker in a non-judgmental way, listening is likely to signal to the speaker that it is safe to share his or her innermost emotions, experiences, and thoughts. Indeed, experimental work has shown that listening induces psychological safety ([Castro, Kluger, & Itzchakov, 2016](#_ENREF_5))—a construct that includes being able to show one’s self without fear. However, not only listening can induce intimacy, but intimacy may also induce high quality listening, such that the high correlation between listening and intimacy (self-disclosure) among couples, *r* = .50 ([Marcus & Swett, 2002](#_ENREF_24)), may reflect a causal (feedback) loop ([Kline, 2016](#_ENREF_13)). In Study 2, 57% of the variance in intimacy stemmed from the dyad level. Moreover, intimacy was positively correlated reliably with listening, especially at the dyadic level with interpersonal correlations of .46, and intrapersonal correlation of .67. That is, employees who indicate that a specific teammate listens well to them tend to report both greater intimacy toward that teammate (intrapersonal), and that teammate is uniquely interested in having greater intimacy with them (interpersonal). In the current study, we wish to replicate these findings with an expanded measure. Thus,

*H5a*: Intimacy has strong dyadic variance

*H5b*: Intimacy is positively correlated with listening largely at the dyadic level.

All the above hypotheses were tested in Study 1 and Study 2. However, the hypotheses below are new and represent the focal contribution of this thesis.

### Speech Quality. To the best of our knowledge, the dyadic nature of speech quality was not studied with round-robin design. Thus,

*RQ1*: What is the componential structure of speaking perception? That is, what proportion of variance in rating speaking stems from (a) people who perceive everyone else to be great (poor) speakers (actor effect), (b) consensus regarding who speaks well (partner effect), and (c) dyadic composition?

Speaking is likely to be correlated with listening as [Bavelas et al. (2000)](#_ENREF_1) have shown experimentally that listening quality affects narration quality, and [Itzchakov, Castro, and Kluger (2016)](#_ENREF_8) have shown experimentally that discourse type affects listening. Thus, listening and speaking may be correlated both at the person level and at the dyad level. Specifically,

*H6*a: There will be an *actor-partner* correlation between listening and speaking quality, such that people who report that others listen well to them will also agree that their partners are good speakers.

*H*6b: There is an *interpersonal* bivariate correlation between unique listening perception and unique speaking quality; a person who reports that their partner listens especially well to them will have that partner reporting that that person is an especially good speaker.

### Helping Organizational citizenship behavior (OCB)

Intimacy is likely to have a host of positive consequences ([Reis et al., 2017](#_ENREF_32)), including in the workplace ([Kark, 2011](#_ENREF_10)). Thus, intimacy may be like a syndrome that as long as it is present in a dyad, it drastically changes how dyad members behave in the presence of each other. Yet, to demonstrate how listening-induced intimacy could be relevant in organizations, we chose to focus on one downstream variable that is likely to reflect the strength of the bond between dyad members. Listening has already been shown to correlate with variables reflecting the bond between the employee and the organization. Specifically, employees who experience good listening report higher job commitment ([Lobdell et al., 1993](#_ENREF_19)), and organizational citizenship behavior (OCB; [Lloyd et al., 2014](#_ENREF_17); [Schroeder, 2016](#_ENREF_36)). OCB encompasses those behaviors that go beyond what is required for a given job and that contribute to greater organizational effectiveness. Helping-OCB is the organizational citizenship behavior directed towards other individuals in the organization ([Ehrhart, Aarons, & Farahnak, 2015](#_ENREF_6)). Helping is a form of citizenship behavior that is rooted in social exchanges (Organ, Podsakoff, & MacKenzie, 2006; Zellars & Tepper, 2003), where reciprocation is a basis for helping (Spitzmuller & Van Dyne, 2013). Indeed, empirical work has shown that friendship predicts helping OCB ([Bowler & Brass, 2006](#_ENREF_2)). Hence, the link between listening and OCB may be due to intimacy. Intimacy may contribute specifically to helping OCB and might do so in the dyad level. Note that helping OCB may have a dark side (Spitzmuller & Van Dyne, 2013), and that intimacy (like friendship) also creates opportunities to harm the other ([Venkataramani & Dalal, 2007](#_ENREF_37)), but here we focus on helping that is approached based and thus expected to benefit the organization (Spitzmuller & Van Dyne, 2013). Therefore, we predict that

*H7*a: There will be *actor-partner* and *partner-actor* correlations between intimacy and helping OCB. Specifically, people who report that they have intimacy with their teammates will also have a consensus that others want to help them; and people who report that they are willing to help their teammates will be judged by partners as more intimate with them.

This prediction is based on the assumption that the general tendency of people to elicit high or low levels of help is a function of their general intimacy with their teammate. Yet, research on helping OCB suggests that it has large intra-individual variability ([Gabriel, Koopman, Rosen, & Johnson, 2018](#_ENREF_7)). Whereas this past research assessed intra-individual variability as a function of time, we propose that that helping OCB will have intra-individual variability stemming from different partners (relationship effects). Therefore, we hypothesized that the intimacy-helping link will be especially pronounced at the dyadic level.

*H*7b: There will be an *interpersonal* bivariate correlation between unique intimacy and unique helping OCB; a person who reports having intimacy with a specific partner will have that partner report that they uniquely want to help him or her.

# Method

### Participants. We recruited workers in 43 teams of four to six workers each. The teams were from diverse occupations and organizations such as teams of engineers, university librarians, social workers, software developers, lawyers, and management teams. The industries of the teams were also diverse (e.g., biomedical, law, security, hi-tech, fundraising, academy, etc.) The teams included members from the same rank (supervisors did not participate), and with an acquaintance of at least one year of all members. Of the 181 employees that we intended to recruit, we obtained data from 157 employees. We imputed the answers of four participants who answered almost completely. However, we had to discard four teams because we did not have full round-robin data for at least four members, either due to group members who refused participation or due to a group member who quit the survey. This left complete data for 145 participants nested within 32 round robins, 18 of size four, 11 of size five, and three of size six (average group size = 4.53, *M*age = 37.6, *SD* = 12.6, 62.1% female).

### Procedure. We approached acquaintances to introduce us to their team members. We explained that we were studying listening in teams and asked those who agreed to participate to answer a short survey online. For each group, we prepared four to six copies of a form indicating the group number and a code linking the first names of the team members to the letters A through D, E or F. We instructed the participant to enter their group and participant code, to rate their group members on listening, intimacy, speech, and helping-OCB, and then to report gender and age. We advised participants that after they finished they could destroy the code to protect their anonymity. Participants spent approximately nine minutes answering the questionnaire.

### **Measures**. We used the same item anchoring on 11-point scales for all measures, except that for listening the anchors were as in Study 1 and Study 2 as explained below.

Listening. Based on research suggesting that questionnaires containing many items of listening yield either one second-order factor ([Kluger & Bouskila-Yam, 2018](#_ENREF_14)), or even one factor ([Jones, Bodie, & Hughes, 2016](#_ENREF_9); [Lipetz, 2016](#_ENREF_16); [Schroeder, 2016](#_ENREF_36)), we used items that typically appear in listening questionnaires and which yield very high loadings. To avoid a ceiling effect, we adopted response anchors from previous studies. Hence, the response anchors are: 0 = *Very bad*, 1 = *Less well than usual*, 2 = *Slightly less well than usual*, 3 = *In a usual way*, 4 = *Slightly better than usual*, 5 = *Better than usual*, 6 = *Much better than usual*, 7 = *More than better*, 8 = *Excellently*, 9 = *In positively outstanding way*, 10 = *In the best way in my life*.

Listening ratings. Following the stem “Relative to other people, …”, we asked participants to rate “X listens to me”, “X understands me”, “X enables me to express myself”, and “X accepts me as I am.” where X was the letter assigned to the partner (A, B, C, D, E, or F).

Intimacy. Participants rated their perceived intimacy with their interaction partners on three items. We used the first intimacy question from Study 2 (“I feel emotionally close to X”), and added “I feel comfortable sharing my innermost thoughts and/or emotions with X”, and “I enjoy performing tasks with X”. These new items were selected from the work-intimacy scale developed by Kark ([2011](#_ENREF_10)). We obtained the items from the author ([Kark, November 11, 2017](#_ENREF_11)).

Speech quality*.* To measure perceived-speech quality, we consulted several sources in the fields of communication, public speech, and speech therapy. We selected items that are frequently used and are relevant to dyadic communication ([Menzel & Carrell, 1994](#_ENREF_25); [Onslow & Ingham, 1987](#_ENREF_27)). Specifically, we asked (a) “X speaks clearly”, (b) “X speaks interestingly”, and (c) “X has a pleasant voice”.

Helping organizational citizenship behavior (Helping-OCB)**.** To measure helping OCB, we adopted and adjusted items from an OCB subscale of altruism ([Morrison, 1994](#_ENREF_26)). Specifically, we ask participants to rate the degree to which (a) “I would be willing to assist X beyond the job requirement”; (b) “I would help X in his work, as much as I can, if he or she has too much to do”; and (c) “I would change vacation schedule, work days, or shifts to accommodate X needs”.

### Analysis. We used *TripleR* ([Schönbrodt, Back, & Schmukle, 2016](#_ENREF_35)) to estimate SRM parameters. *TripleR* constructs latent constructs only from two indicators. Therefore, for constructs for which we had three items (e.g., speaking), we constructed one indicator from a pair of items and the other from the remaining single item. Then, we tested two other models, where each item served once as the single indicator. These variations had practically no effect on the results.

# Results

The SRM analysis provides information regarding each measured constructs (univariate) as well as the correlations between constructs pairs (bivariate). In this paragraph, we look into the hypotheses relating to each construct separately (univariate). Table 1 describes the univariate analysis for the four measured constructs: listening, intimacy, speech, and helping-OCB. This univariate analysis differentiates between the variances of the sources (actor, partner, and dyad) of each construct, and also provides the general and dyadic reciprocities named “actor-partner covariance” and “relationship covariance”, respectively. Table 1(a) suggests that the hypotheses regarding listening are supported with a dyadic variance of 44.5% (H1) vs. a partner effect (consensus) of 13.2% (H2) and an actor effect of 33.8% (H3). In addition, a significant relationship correlation of .45 supports H4 and shows that while people who listen well in general, do not necessarily feel listened-to, people who listen well to a specific person, tend to feel that that specific person listens well to them. Table 1(b) exhibits similar patterns for intimacy, with 43.1% of the dyadic variance (H5a), and around 20% of variances stemming from actor and partner effects. These results of listening and intimacy are a replication of former studies. These studies raised the research question regarding speech, and whether speech is also of dyadic nature. Table 1(c) gives answers to RQ1, enabling the dyadic aspects of speech to arise. The data shows that around 30% of the perceived speech quality stems from the speaker, but around 30% stems from the specific dyad, and around 20% stems from the rater. Meaning that although there is a tendency to speak well (poor), and a mild tendency to perceive speech as good (poor), people also speak better (worse) in the presence of specific listeners, or that these specific listeners perceive their speaking as better (worse). Moreover, there is no evidence of reciprocities in the perception of speech, either generalized or dyadic. The last segment, Table 1(d), shows a similarity in patterns between helping-OCB and listening, with high actor and dyadic effects and low partner (consensus) effect, coupled only with dyadic reciprocity, but no generalized reciprocity. Since no apriori hypotheses were raised regarding the dyadic nature of helping behavior, then, the data analysis will be handled in the discussion section for further future research.

Turning to bi-variate analyses, the Listening-Intimacy column in Table 2 shows some strong correlations between listening and intimacy. Three of these correlations are between scores provided by the same person, and hence, high correlations are not surprising: (a) a .59 actor-actor correlation suggests that people who report that others listen to them, also tend to report high levels of intimacy with others; (b) a .92 partner-partner correlation suggests that people feel intimate with good listeners; and (c) an intrapersonal relationship of .78 suggests that people who report high levels of intimacy with a specific person are very likely to report that person listens well to them. However, of the three correlations that are between scores provided by different people, only the interpersonal relationship, .55, is reliably different from zero, suggesting that people who report that a specific person listens well to them will have that person report being intimate with them. This is consistent with H5b and suggests that listening and intimacy are reciprocal, but only at the dyad level.

Table 2 also presents tests of H6 and H7. H6a suggests an actor-partner correlation between listening and speaking. Neither actor-partner nor partner-actor significant correlations were found. However, as predicted by H6b, there is an interpersonal correlation between listening and speaking of .25, such that when one person perceives his or her unique dyad member listens well, that dyad member reports that that person speaks well. This shows that communication quality in teams is dyadic. H7a suggests an actor-partner correlation between intimacy and helping OCB. Both actor-partner and partner-actor correlations are significant, with the one-tailed test (given that we had an a priori hypothesis, the *p* values in Table 2 should be halved) and show correlations of .33 and .27 respectively. That is, people who feel intimate with their teammate tend to elicit help from them (actor-partner), and people that tend to elicit intimacy from their teammates, tend to help them (partner-actor). This link is more pronounced, however, at the dyadic level, *r* = .55. That is, people who feel uniquely intimate with a given teammate, have this teammate report a unique willingness to help that person supporting H7b.

# Discussion

The study provides support to the dyadic nature of the communication-based constructs (listening, intimacy, speech and helping OCB), and provides insights regarding the dyadic nature of the association between these constructs. This study, as well as other SRM analyses, sheds light on the multifaceted traits and behaviors of people when in the presence of different others. The perceived listening, intimacy, speech and willingness to assist beyond duty, all have meaningful dyadic components and are all correlated mainly at the dyadic level.

The study shows that some dyads have better communication than others do and that when communication is good, it seems that each member of the dyad contributes to the quality of speaking of the other member by listening well, and has a better speaking ability due to the better listening of the other member. This is consistent with experimental work that manipulated either listening ([e.g., Bavelas et al., 2000](#_ENREF_1)) or narrative quality ([Itzchakov et al., 2016](#_ENREF_8)). Yet, this study is the first to provide data consistent with a feedback loop hypothesis, that is, that listening affects speech quality, and vice versa. In addition, both listening and speaking ability seem to contribute to intimacy, albeit listening appears to have a much stronger effect on intimacy than speech.

The study also demonstrated the importance of listening for organizational behavior. Specifically, this study shows the linkage between listening, intimacy and helping behavior. This effect is most pronounced at the dyadic level; people tend to help those with whom they experience intimacy. Yet, this link could also exist at the trait level, such that people who feel intimacy with others, in general, tend to elicit help. Thus, the current study demonstrates that listening and intimacy are associated with an organizationally relevant outcome. This offers a conceptual replication for findings that friendship predicts both providing and receiving help dyadically in an organizational network ([Bowler & Brass, 2006](#_ENREF_2)). Moreover, it provides empirical support to the theory regarding intimacy at work advanced by [Kark (2011)](#_ENREF_10), and in most likelihood exposes only the tip of the iceberg of organizational outcomes that are driven by listening and listening-induced intimacy.

Our findings suggest that ratings of inherently relational processes (listening, intimacy, self-disclosure, attraction) are determined most strongly by dyadic effects. In contrast, trait ratings (e.g., extroversion), seem to be determined most strongly by partner (consensus) effects, but this seems to be moderated by trait ([Kenny, Albright, Malloy, & Kashy, 1994](#_ENREF_12); [Paulhus & Reynolds, 1995](#_ENREF_30)). Specifically, [Kenny et al. (1994)](#_ENREF_12) concluded that for Factor I of the Big Five (Extraversion) consensus is about 30% due to partner, Factor III (Conscientiousness) is about 15% and the rest (II, IV, V) are zero. Moreover, [Paulhus and Reynolds (1995)](#_ENREF_30) have shown that for all personality measures it is possible to obtain high partner effect, which for extroversion could exceed 50%. However, when the SRM pertains to relational processes, “Kenny (1994) made a general prediction regarding the magnitudes of the actor, partner and relationship variance components in *interpersonal attraction* [emphasis added] and suggested that respectively they should account for 20%, 10% and 40% of the variance in interpersonal attraction.” ([Malloy, in press](#_ENREF_20)). Thus, our findings conforms to Kenny’s expectation that for relational variables most of the variance stems from dyadic effects.

The current study with the understanding of the dyadic nature of listening and the other measured constructs, raise some research questions that might be answered in future research.

Dyads***.*** We found that listening and intimacy are inherently and primarily dyadic phenomenon. Hence, the dyad appears to be a worth notion unit, and one would have to wonder, what makes a “good” dyad. What makes a dyad uniquely supportive or destructive to the communication-based constructs? This question seems related to the challenge of understanding “chemistry”, including, in non-sexual friendships ([Campbell, Holderness, & Riggs, 2015](#_ENREF_4)). Future research may investigate the effects of random environmental factors in creating high-quality listening dyads, such as physical proximity in the workplace (e.g., two workers sitting next to each other may listen better to each other), and task interdependence. It could also probe personality matches such as mutually low levels of narcissism, cultural approach, and factors not typically considered in this type of research such as similarity of body odor’s or rhythm of speech. Study 1 did measure several personality traits but failed to find any systematic correlations with any SRM component. This might have happened because that study was based on unacquainted participants. Therefore, it might be useful to replicate my study with acquainted participants, while adding to it those personality measures and testing whether similarity on these measures predicts the sum of two dyadic scores on listening and other constructs.

Manipulation. Listening has proven to be a learned skill and behavior ([e.g., Wouda & van de Wiel, 2014](#_ENREF_39)). Hence, can listening be induced at the dyad level by an external manipulation in order to enhance listening in work-teams?

Additional questions. Are dyads with good listening good for the organization, or do they stem from similarity such that they may hurt productive organizational diversity? Alternatively, maybe due to chemistry, good listening dyads have nothing to do with similarity and might even improve diversity? Are dyadic listening scores stable over time? That is, if a person indicates that a unique partner listens very well in one month, would that person report the same a month later? Is a dyad created at the time of acquaintance or does it develop over time?

## Limitations

There are two major limitations to the research. The first involves the helping-OCB measure, and the second might be due to the Western culture in which the study was held.

The first issue was raised by the participants regarding the helping-OCB questions. The questions meant to measure the actual willingness to assist a teammate beyond the job requirements. However, participants stated, after filling the questionnaire, that their response was sometimes negative, not because they are not *willing* to help, but rather *cannot* help because they do not have the required knowledge or skills to assist their teammate. Although they work in the same team, they do not share the same role, and therefore they could not take over someone else’s work. This might cause some underestimate of correlations involving the helping-OCB measure. In future research, this might be amend this issue by asking about *willingness* to assist. Alternatively, the question might be divided into two parts, where the first part would be “In what way *could* you assist your teammate, beyond the job requirements, if you wished to do so”, and the second part would ask about the willingness to provide such assistance in case of need.

The second limitation concerns the rather low consensus of listening. The question was raised whether in more collectivistic societies as opposed to individualistic societies the research would have uncovered a higher partner effect because in such societies people may be more attuned to the social contribution of the people around them.

## Conclusion

In this Study, I have replicated the results of Study 2 and expanded its scope by demonstrating that both speaking and organizational helping behavior are related to listening and intimacy and that all of these constructs show dyadic variance and dyadic reciprocities. In concert, my study suggests that in order to understand listening and other behaviors in organizations future research should attempt to predict what creates dyads with high-quality communication, in a departure from past studies that focused on the individuals or teams’ attributes.

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###### Table 1.

*Study 3: SRM Estimates of Latent Listening, Intimacy, Speaking, and Helping OCB (a) Target Listening*

*(a) Listening*

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| SRM component | Reliability | Raw estimate | SE of estimate | Std. estimate | *t* | *p* |
| actor variance | .67 | 1.756 | 0.388 | 33.8% | 4.52 | .001 |
| partner variance | .45 | 0.684 | 0.262 | 13.2% | 2.61 | .005 |
| relationship variance | .94 | 2.311 | 0.262 | 44.5% | 8.81 | .001 |
| error variance |  | 0.439 |  | 8.5% |  |  |
| actor-partner covariance |  | 0.064 | 0.244 | .06 | 0.26 | .793 |
| relationship covariance |  | 1.046 | 0.262 | .45 | 3.99 | .001 |

*(b) Intimacy*

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| SRM component | Reliability | Raw estimate | SE of estimate | Std. estimate | *t* | *p* |
| actor variance | .54 | 1.624 | 0.444 | 21.1% | 3.65 | .001 |
| partner variance | .58 | 1.777 | 0.487 | 23.1% | 3.65 | .001 |
| relationship variance | .91 | 3.313 | 0.388 | 43.1% | 8.53 | .001 |
| error variance |  | 0.980 |  | 12.7% |  |  |
| actor-partner covariance |  | 0.717 | 0.394 | .42 | 1.82 | .072 |
| relationship covariance |  | 2.097 | 0.388 | .63 | 5.40 | .001 |

*(c) Speech*

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| SRM component | Reliability | Raw estimate | SE of estimate | Std. estimate | *t* | *p* |
| actor variance | .71 | 1.573 | 0.326 | 30.4% | 4.82 | .001 |
| partner variance | .62 | 1.072 | 0.266 | 20.7% | 4.04 | .001 |
| relationship variance | .79 | 1.506 | 0.2 | 29.1% | 7.53 | .001 |
| error variance |  | 1.031 |  | 19.9% |  |  |
| actor-partner covariance |  | 0.058 | 0.219 | .04 | 0.26 | .793 |
| relationship covariance |  | 0.271 | 0.2 | .18 | 1.36 | .177 |

*(d) Helping OCB*

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| SRM component | Reliability | Raw estimate | SE of estimate | Std. estimate | *t* | *p* |
| actor variance | .66 | 1.860 | 0.421 | 34.3% | 4.42 | .001 |
| partner variance | .52 | 0.720 | 0.299 | 13.3% | 2.41 | .009 |
| relationship variance | .86 | 1.747 | 0.263 | 32.3% | 6.64 | .001 |
| error variance |  | 1.089 |  | 20.1% |  |  |
| actor-partner covariance |  | 0.209 | 0.261 | .18 | 0.80 | .424 |
| relationship covariance |  | 0.899 | 0.263 | .51 | 3.42 | .001 |

*Note. N =* 145 participants embedded in 32 round robins providing 526 dyadic ratings. When *p* < .001, we wrote .001.

###### Table 2.

*Study 3: Bivariate SRM correlations for latent variables*

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Listening with | | | | | | | |  | Intimacy with | | | | |  | Speech with | |
|  | Intimacy | |  | Speech | |  | Help | |  | Speech | |  | Help | |  | Help | |
| Type of correlation | *r* | *p* |  | *r* | *p* |  | *r* | *p* |  | *r* | *p* |  | *r* | *p* |  | *r* | *p* |
| actor-actor | .59 | .004 |  | .33 | .017 |  | .42 | .012 |  | .34 | .027 |  | .45 | .016 |  | .49 | .004 |
| partner-partner | .92 | .001 |  | .64 | .004 |  | .97 | .003 |  | .71 | .001 |  | .94 | .001 |  | .81 | .001 |
| actor-partner | .17 | .183 |  | .03 | .420 |  | .25 | .107 |  | .19 | .141 |  | .33 | .097 |  | .17 | .175 |
| partner-actor | .20 | .210 |  | .22 | .143 |  | .28 | .090 |  | .10 | .276 |  | .27 | .078 |  | .20 | .115 |
| intrapersonal relationship | .78 | .001 |  | .54 | .001 |  | .64 | .001 |  | .59 | .001 |  | .78 | .001 |  | .59 | .001 |
| interpersonal relationship | .55 | .001 |  | .25 | .005 |  | .46 | .001 |  | .26 | .003 |  | .55 | .001 |  | .20 | .036 |

*Note*. The first four rows are based on *N* = 145 participants, and the last two on 526 dyads. When *p* < .001, we wrote .001.

# Appendix

## The Social Relations Model (SRM)

To test our hypotheses, we employed a round-robin design and analyzed it with the social relations model (SRM; [Malloy & Albright, 2001](#_ENREF_21); [Malloy & Kenny, 1986](#_ENREF_23); [Warner et al., 1979](#_ENREF_38)). In a round-robin design, the researcher measures a feature of the interactions of each unit (person, mouse) with all other units ([Malloy, Barcelos, Arruda, DeRosa, & Fonseca, 2005](#_ENREF_22)). When the number of units exceeds three, the variance in such data can be decomposed into several elements with SRM. Because SRM has been less common in OB research, next we present a short introduction to SRM tailored to the context of listening and our hypotheses.

## **The Basics: Actor, Partner, and Dyadic Effects**

In Table 1A, we provide three fictitious examples of data patterns, where four participants mark, using a 0-10 scale, the listening quality they experience while interacting with each of the three other people. Everyone rates the listening quality of all other participants. This is a round robin design. We constructed the examples so that the mean of all rating is five. In each of these examples, 100% of the variance in judgments of listening quality stems either only from (a) the speaker (the actor), (b) the listener (the partner), or (c) the dyad. In Table 1Aa, we present a case where listening quality is completely a subjective experience of the speaker, where one speaker reports that everyone listens to him or her very well (participant A with scores of 10), and another speaker reports that everyone listens to him or her very poorly (participant D). A’s actor score reflects the deviation of A’s mean from the grand mean. In Table 1Aa, there is also no consensus among raters regarding who is a good or a poor listener. That is, although the actual mean ratings of each column are different, once a correction formula is applied to account for the missing diagonal elements, the mean-column rating deviation from the grand mean is zero. Finally, variances of actor, partner and dyadic relationship effects are computed and standardized, as the proportion of total variance, and range from zero to one. To simplify, this example assumes no error of measurement[[1]](#footnote-2). As can be seen in Table 1Aa, all the variance stems from differences in the way speakers (actors) perceived the quality of listening by others.

In Table 1Ab, we present a case where listening reflects a perfect consensus, where one listener is consistently perceived to be an excellent listener (participant A with a score of 10 and a partner score of five), and others are poorer listeners. Finally, in Table 1Ac, we present a case where listening is completely dyadic. That is, on average, all speakers perceive that they have been listened to equally well by all others, and there was no consensus regarding who is a good or a poor listener (everyone was rated with the same average ratings). Yet, participants had unique listening experiences in a specific dyad. For example, A reported that B listened very well and D very poorly. However, C and D, for example, did not agree with A regarding the listening experience with B. That is, listening is a property of the dyad.

### Generalized and Dyadic Reciprocities: Covariances (Correlations) among SRM Components. Once the actor, partner, and dyadic effects are calculated, one can compute both an actor-partner covariance and relationship covariance (and then standardize them). As can be seen in Table2a (on the right-hand side), the actor-partner covariance, or the rater-ratee covariance, is zero. If this covariance is positive, it indicates that people who feel that others listen well to them are also perceived to be good listeners. This would indicate a *generalized reciprocity*. In Table 2Ab, we present the meaning of relationship covariance using the data from Table 1Ac. In this example, all partners reciprocate perfectly the quality of listening of their unique interaction partner. As a more specific example, both A and B experienced especially good listening in the presence of each other; also both A and D experienced especially poor listening with one another. This indicates a perfect *dyadic* *reciprocity*.

### Covariances (Correlations) between Components of Bivariate SRM. It is possible to calculate SRM for two constructs and assess the relationships among the effects obtained in each SRM. For example, respondents may be asked to provide both self-ratings and target ratings of listening. Alternatively, respondents may be asked to rate each other both on listening (one construct) and on intimacy (second construct). When two constructs (or perspectives) are measured, one can calculate a bivariate SRM, which yields six additional effects (Table 3A). First, *actor-actor covariance* assesses whether people who rate all others as good or poor listeners (actor effect on listening) tend to report high or low intimacy with everyone else (actor effect on intimacy). Second, *partner-partner covariance* assesses whether people for whom there is a consensus that they are good listeners (partner effect on listening) tend to have a consensus that others feel high intimacy with them (partner effect on intimacy). Third, *actor-partner covariance* assesses whether people who rate all others as good or poor listeners (actor effect on listening) tend to have a consensus that others feel high or low intimacy with them (partner effect on intimacy). Fourth, *partner-actor covariance* assesses whether people for whom there is a consensus that they are good listeners (partner effect on listening) tend to report high intimacy with everyone else (actor effect on intimacy). Fifth, *intrapersonal* relationship covariance assesses whether the dyadic scores on listening correlate with the dyadic score on intimacy (Table 4A). For example, do people who uniquely feel that a specific partner listened to them also uniquely feel intimate with that specific person? Finally, *interpersonal* relationship covariance assesses whether the dyadic scores on listening of one person correlate with the dyadic score on intimacy of the unique partner (Table 4A). For example, do people who uniquely feel that a specific partner listened to them also have partners that uniquely feel intimate towards them? Note that these six effects could be calculated both between pairs of different constructs (e.g., listening and intimacy) and between different perspectives regarding the same construct (e.g., target ratings and meta-perception).

Finally, note that three of these correlations are based on common sources, and three are not. Specifically, actor-actor covariance is based on actor’s ratings; partner-partner covariance is based on the consensus of the same set of raters regarding the actor, and the intrapersonal covariance is based on the unique ratings of the actor. In contrast, actor-partner, partner-actor, and interpersonal covariances are based on different sources of ratings. The first two correlate the ratings of the actor on one construct with all his or her partners’ rating on another construct, and the last one correlates the unique rating provided by each actor regarding a unique partner on one construct with that partner’s rating on another construct.

###### Table 1A.

1. *A Hypothetical Data with Actor Effect Only (Speaker’s Experience of Being Listened to)*

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Ratee | | | |  |  | | | | | |
| Rater | A | B | C | D | Mean | Actor score |  |  |  |  | |
| A |  | 10 | 10 | 10 | 10 | 5 |  |  |  |  | |
| B | 7 |  | 7 | 7 | 7 | 2 |  |  | Variances | |
| C | 3 | 3 |  | 3 | 3 | -2 |  | Source | Raw | Standardized | |
| D | 0 | 0 | 0 |  | 0 | -5 |  | Actor | 19 | 1 | |
| Mean | 3 | 4 | 5 | 6 | 5 |  |  | Partner | 0 | 0 | |
| Partner score | 0 | 0 | 0 | 0 |  |  |  | Dyadic | 0 | 0 | |

1. *A Hypothetical Data with Partner Effect Only (Perfect Consensus about who is a Good Listener)*

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Ratee | | | |  |  | | | | | |
| Rater | A | B | C | D | Mean | Actor score |  |  |  |  | |
| A |  | 7 | 3 | 0 | 3 | 0 |  |  |  |  | |
| B | 10 |  | 3 | 0 | 4 | 0 |  |  | Variances | |
| C | 10 | 7 |  | 0 | 5 | 0 |  | Source | Raw | Standardized | |
| D | 10 | 7 | 3 |  | 6 | 0 |  | Actor | 0 | 0 | |
| Mean | 10 | 7 | 3 | 0 | 5 |  |  | Partner | 19 | 1 | |
| Partner score | 5 | 2 | -2 | 5 |  |  |  | Dyadic | 0 | 0 | |

1. *A Hypothetical Data with Dyadic Effect Only (Listening is a Property of Unique Dyads)*

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Ratee | | | |  |  | | | | | |
| Rater | A | B | C | D | Mean | Actor score |  |  |  |  | |
| A |  | 10 | 5 | 0 | 5 | 0 |  |  |  |  | |
| B | 10 |  | 0 | 5 | 5 | 0 |  |  | Variances | |
| C | 5 | 0 |  | 10 | 5 | 0 |  | Source | Raw | Standardized | |
| D | 0 | 5 | 10 |  | 5 | 0 |  | Actor | -25a | 0 | |
| Mean | 5 | 5 | 5 | 5 | 5 |  |  | Partner | -25a | 0 | |
| Partner score | 0 | 0 | 0 | 0 |  |  |  | Dyadic | 50 | 1 | |

*Note.* Formulas for calculating scores and variances, which correct for inherently missing diagonal ratings and the group size, respectively, can be found in [Warner et al. (1979)](#_ENREF_38).

a Negative variances estimates are a product of a correction formula. They are taken to indicate zero variance.

###### Table 2A.

1. *A Hypothetical Data Demonstrating Zero Rater-Ratee Covariance (Correlation)*

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Ratee | | | |  |  | | | | |
| Rater | A | B | C | D | Mean | Actor score |  |  |  |  |
| A |  | 10 | 10 | 10 | 10 | 5 |  |  |  |  |
| B | 7 |  | 7 | 7 | 7 | 2 |  |  | Actor | Partner |
| C | 3 | 3 |  | 3 | 3 | -2 |  |  | 5 | 0 |
| D | 0 | 0 | 0 |  | 0 | -5 |  |  | 2 | 0 |
| Mean | 3 | 4 | 5 | 6 | 5 |  |  |  | -2 | 0 |
| Partner score | 0 | 0 | 0 | 0 |  |  |  |  | -5 | 0 |

*r* = 0.00

1. *A Hypothetical Data with Dyadic Effect, Individual Dyadic Score, and Perfect Relationship Covariance*

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Ratee | | | |  |  | | | | |
| Rater | A | B | C | D | Mean | Actor score |  |  |  |  |
| A |  | 10 | 5 | 0 | 5 | 0 |  |  | AB: 5 | BA: 5 |
| B | 10 |  | 0 | 5 | 5 | 0 |  |  | AC: 0 | CA: 0 |
| C | 5 | 0 |  | 10 | 5 | 0 |  |  | AD: -5 | DA: -5 |
| D | 0 | 5 | 10 |  | 5 | 0 |  |  | BC: -5 | CB: -5 |
| Mean | 5 | 5 | 5 | 5 | 5 |  |  |  | DB: 0 | BD: 0 |
| Partner score | 0 | 0 | 0 | 0 |  |  |  |  | DC: 5 | CD: 5 |

*r* = 1.00

###### Table 3A.

1. *Hypothetical Actor-Actor, Partner-Partner, Actor-Partner, and Partner-Actor Covariances (Correlations)*

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Construct X (e.g., listening) | | | | | |  | Construct Y (e.g., intimacy) | | | | | |
|  | Ratee | | | |  |  |  | Ratee | | | |  |  |
| Rater | A | B | C | D | Mean | Actor score |  | A | B | C | D | Mean | Actor score |
| A |  | 10 | 10 | 10 | 10 | 5 |  |  | 10 | 10 | 10 | 10 | 5 |
| B | 7 |  | 7 | 7 | 7 | 2 |  | 7 |  | 7 | 7 | 7 | 2 |
| C | 3 | 3 |  | 3 | 3 | -2 |  | 3 | 3 |  | 3 | 3 | -2 |
| D | 0 | 0 | 0 |  | 0 | -5 |  | 0 | 0 | 0 |  | 0 | -5 |
| Mean | 3 | 4 | 5 | 6 | 5 |  |  | 3 | 4 | 5 | 6 | 5 |  |
| Partner score | 0 | 0 | 0 | 0 |  |  |  | 0 | 0 | 0 | 0 |  |  |

*r* = actor-partner = 0.00r = 0.00

*r* = partner-partner = 0.00r = 0.00

*r* = partner-actor = 0.00r = 0.00

*r* = actor-actor = 1.00r = 0.00

###### Table 4A.

1. *Hypothetical* Intrapersonal-R*elationship and* Interpersonal-*Relationship Covariances (Correlations)*

*r* = *intra*personal = 1.00

*r* = *inter*personal = 1.00

|  |  |  |
| --- | --- | --- |
| Dyadic score on X | Dyadic score on Y | Partner dyadic score on Y |
| AB: 5 | AB: 5 | BA: 5 |
| AC: 0 | AC: 0 | CA: 0 |
| AD: -5 | AD: -5 | DA: -5 |
| BC: -5 | BC: -5 | CB: -5 |
| DB: 0 | DB: 0 | BD: 0 |
| DC: 5 | DC: 5 | CD: 5 |
| BA: 5 | BA: 5 | AB: 5 |
| CA: 0 | CA: 0 | AC: 0 |
| DA: -5 | DA: -5 | AD: -5 |
| CB: -5 | CB: -5 | BC: -5 |
| BD: 0 | BD: 0 | DB: 0 |
| CD: 5 | CD: 5 | DC: 5 |

1. Yet, in practice, error can be estimated where more than one measure of the behavior in question is available. Otherwise, variance is decomposed into actor, partner, and error combined with dyadic effect. [↑](#footnote-ref-2)