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The Repertoire of Understanding: The Linguistic Patterning of Repetition and Alignment within Supportive Conversations

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THE REPERTOIRE OF UNDERSTANDING:
THE LINGUISTIC PATTERNING OF REPETITION AND ALIGNMENT WITHIN
SUPPORTIVE CONVERSATIONS

A Dissertation

Submitted to the Graduate Faculty of the
Louisiana State University and
Agricultural and Mechanical College
in partial fulfillment of the
requirements for the degree of
Doctor of Philosophy

in

The Department of Communication Studies

by

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ABSTRACT

This dissertation explores a fundamental feature of all human interaction, behavioral coordination. Since early work on motor mimicry, scholars of human communication have invested tremendous energy to discover patterns of behavioral adaptation and the impact these patterns have on individual and relational outcomes. Outcomes such as individual health and well-being, as well as relationship satisfaction and divorce are all contingent on the ability to adapt and coordinate actions (Niederhoffer & Pennebaker, 2002; Stehl et al., 2008; Kulesza et al., 2013; Ireland et al., 2011). Several decades of research have advanced our understanding of specific characteristics of supportive messages and their relationship to important outcomes (for review see MacGeorge, Feng, & Burleson, 2011), and work by communication scientists has uncovered the importance of supportive relationships to health and well-being (Holt et al., 2010). This dissertation focuses on a set of language behaviors and how people repeat, paraphrase, and align language use during supportive conversations.

Conversations between friends, strangers, and active listeners all engaged in a supportive conversation were analyzed. The analysis of transcripts of conversations between listeners and disclosers engaged in a 5-minute supportive interaction were conducted in two ways. First, two measures of linguistic coordination, Language Style Matching (LSM) (Ireland & Pennebaker, 2010) and Local Lexical Repetition (LLR) (Cannava & Bodie, 2015) were computed using textual analysis software. Results show that LSM was a significant variable in explaining supportive outcomes, whereas LLR failed to have predictive power. Second, stance analysis (Du Bois, 2007) was used to address supportive communication from a discourse analytic perspective. Results revealed that each relational group accomplished supportive conversations that varied on boundaries of coordination, investment, and affiliation.

In general, this dissertation provides full or partial empirical support for the application and conceptualization of LSM and LLR. LSM is shown to be a positive predictor of supportive outcomes, whereas LLR is not. While providing three discourse analytic profiles of alignment, his dissertation also showed that dyads enact linguistic coordination and alignment in variety of ways depending on relationship type. Finally, this dissertation seeks to represent the repertoire of linguistic coordination used during a supportive interaction.

CHAPTER 1 INTRODUCTION

The ability to coordinate interactions is a fundamental feature of interpersonal communication (Watzlawick, Bavelas, and Jackson, 1967). How people interact with and ultimately understand one another is based on their ability to coordinate actions. Through interaction, communicators are able to adapt (Giles & Coupland, 1991) as well as create interaction patterns that help define the nature of the interaction and the relationship (Cappella, 1981). Interpersonal coordination (IC) functions as a “social glue” that fosters bonding and creates “smooth” interactions (Chartrand & Bargh, 1999; Dijksterhuis, 2005; Lakin, et al., 2003), as well as helps build rapport, communicate empathy, and enhance liking (Chartrand et al., 2005; Lakin et al., 2003). Adaptation decreases when a person wants to disaffiliate from another (Johnston, 2002), and individuals who adapt report greater understanding of their partner compared to those who do not (Stel et al., 2008).

A particularly salient form of interpersonal coordination is behavioral coordination (BC), or the ability to organize actions like movements and speech smoothly and effectively. Cappella (1987) described BC as (1) pervasive within virtually all interpersonal interaction; (2) occurring during the earliest forms of interaction; (3) having important relational outcomes; and (4) somewhat contingent upon individual differences and social skills. It is thus important to document the behavioral coordination patterns, the various types of interactions, and the outcomes in different contexts relevant to interpersonal communication scholarship.

Supportive communication represents one ubiquitous and salient context ripe for the study of behavioral coordination. Supportive communication is the study of “the *messages* through which people both seek and express support ... the *interactions* in which supportive messages are produced and interpreted ... and ... the *relationships* that are created by and

contextualize the supportive interactions in which people engage” (Burleson, Albrecht, Goldsmith, & Sarason, 1994, p. xx; emphases in original). Several decades of research have advanced our understanding of specific characteristics of supportive messages and how they relate to important outcomes (for a review see MacGeorge, Feng, & Burleson, 2011). Work by communication scientists and others indicates that supportive relationships are important for individual health and well-being (Holt et al., 2010). To date, however, the interaction patterns that constitute support and the ways in which messages interact, combine, and collectively assist individuals engaged in an interaction as they work through problems has not been a primary focus of scholarship.

One of the few extensive studies of supportive interaction patterns comes from Jefferson (1980) who developed the term “troubles talk,” defined as “a conversation in which troubles are reported” (p. 153). Her work showed how dyads negotiate transitions into and out of a problematic event disclosure (Jefferson and Lee, 1981) and how advice arises and develops within these conversations (Jefferson, 1980). Goldsmith (2004) expanded on these ideas, developing the term “enacted support,” defined as the things people say and do to buffer the negative effects of stress. She argued that support is a dynamic and communicative phenomenon. Burleson and Goldsmith’s (1998) theory of cognitively induced reappraisal suggests that, instead of examining the content of talk, researchers should focus on the intricate discursive moves people make while engaging in troubles talk. Goldsmith (2004) argued that very little work has explored how troubles talk is enacted, a claim that holds true over a decade later (for a more recent review, see Jones & Bodie, 2014). My dissertation explores coordinated interaction patterns within conversations about everyday stressors, drawing from past work on the inherently interactive nature of supportive communication. In doing so, I examine how dyads coordinate

linguistic behavior to showcase how language influences individual and dyadic outcomes relevant to social support.

In this dissertation I critique the construct validity of various forms of coordination, while providing new and alternative methodologies to understand the process of interpersonal coordination. This dissertation's secondary goal is methodological in nature. Using statistical and close textual analysis approaches, I explore how different techniques capture, analyze, and produce results about linguistic coordination and its relationship to interpersonal communication. In this first chapter, I detail the specific types of behavioral coordination germane to this project as well as the outcomes of supportive conversations most relevant to my dissertation. In addition, I discuss the theoretical and practical foundation of my research and contributions my dissertation makes to the discipline of interpersonal communication.

Behavioral Coordination

Scholars studying behavioral coordination (BC) have explored several forms and functions of coordination, but one of the most basic distinctions of behavioral coordination is that between linguistic and nonlinguistic behaviors. The following sections provide brief overviews of these forms of BC with more attention paid to linguistic coordination, given the focus of my dissertation.

Nonlinguistic Coordination

Nonlinguistic coordination generally refers to the coordination of behaviors such as posture, pauses, gestures, tone of voice, and proximity during a conversation (Burgoon, Dunbar, & White, 2014). Studies have shown that when individuals use the same tone of voice, pitch, tempo, phonological cues, posture, proximity, body movements, and facial expressions, several outcomes are influenced. These outcomes include perceived empathy (Chartrand & Bargh,

1999), bonding (Disjksterhuis, 2005), liking (Lakin et al., 2003), affiliation (Johnston, 2002), and perspective taking (Chartrand & Bargh, 1999). Collectively, these studies show that the ability to coordinate bodily and other non-linguistic actions influences interlocutors' perceptions of each other and the ways in which people interact.

Nonlinguistic coordination influences interlocutors' perceptions of support and comfort. Nonverbal behavior is an important component of supportive communication (Miczo & Burgoon, 2008). In particular, immediacy behaviors such as eye contact, forward body lean, and pleasant vocal tone have been shown to influence people's feelings of support (Jones, 2004)., Matching of immediacy has been shown to be a stronger predictor of emotional improvement, compared to analyzing the level of immediacy of listeners only (Bodie, Cannava, Vickery, & Jones, 2015). Thus, immediacy behavior enacted by only one person does not appear to influence supportive outcomes as much as the patterns of matching, or exhibiting behavioral similarity regardless of intentionality (Burgoon, Stern, & Dillman, 1995) between two people. While the matching of non-linguistic behaviors is important for supportive communication, my dissertation focuses on linguistic coordination in the context of supportive communication.

Linguistic Coordination

Linguistic coordination can take many forms. People coordinate speech characteristics and patterns, speech rate, utterance duration, and accents (Giles & Coupland, 1991; Cappella & Planalp, 1981), as well as syntax (Bock, 1986) and vocabulary (Cannava, 2014b). Linguistic coordination is related to outcomes in a manner similar to nonlinguistic coordination, namely rapport (Chartrand & Bargh, 1999), prosocial behaviors (Kulesza et al., 2013), and conversational involvement (Ireland & Pennebaker, 2010). Linguistic coordination also serves a variety of different communicative needs. This includes operating as discourse cohesion or the

“hanging together” of discourse to convey meaning (Johnstone, 1987), as a socialization tool (Moore, 2011), and as a way to create mutual knowledge (Svennevig, 2004; Cook, 2000).

Linguistic coordination also can function to gain the front channel of speech in a conversation (Merritt, 1994), to express disagreement (Merritt, 1977), to express understanding or misunderstanding (Svennevig, 2004), or to inform or be referential (Cushing, 1994).

My dissertation focuses on three forms of linguistic coordination—local lexical repetition (LLR), language style matching (LSM), and alignment (AG). These three constructs represent a viable sample of the total population of linguistic coordination patterns likely to have important theoretical and practical value to the study of interpersonal communication. In terms of theoretical currency, studying linguistic coordination allowed me to analyze how individuals organize messages together to form meaning, a process ubiquitous and consequential in all types of conversations. The study of different types of linguistic coordination provides a lens through which to explore fundamental features of human communication.

In terms of practical currency, coordination is a ubiquitous behavior, pervasive in most social interactions. Coordination occurs across the lifespan, suggesting its study can inform scholars about how people behave together from the cradle to the grave (Condon & Ogston, 1971). Research tells us that interactions are more pleasant and engaging with higher levels of coordination (Chartrand & Bargh, 1999). Coordination also influences empathy, perceptions of attractiveness, and social behaviors (Van Baaren et al., 2004). Individuals coordinate behaviors to cooperate and to preserve relationships. Coordination is a necessary and vital component of interpersonal communication because of its pervasiveness and consequential nature.

Linguistic Coordination with Supportive Interaction

Supportive conversations provide one context in which to study linguistic coordination patterns. While scholars have long acknowledged that social support is an important contributor to health and well-being (Cassel, 1976), little research has focused on how social support is enacted during the course of actual conversations (Goldsmith, 2004). Scholars have documented characteristics of more or less helpful supportive messages (MacGeorge et al., 2011), but there is less emphasis on how individuals actually talk about and respond to problems and stressful events (Burleson & Goldsmith, 1998; High & Solomon, in press; Jones & Bodie, 2014; Metts et. al, 1995). By overlooking supportive conversations, researchers are missing important pragmatic and theoretical resources that will advance the study of social support.

Social support is a dialogic action. Narrative production is a social process involving listeners as co-narrators (Bavelas, Coates, & Johnson, 2000); therefore linguistic coordination and interdependent actions with which two people accomplish social support rely on dyadic collaboration. Goldsmith (2004) explained that, “Enacted support occurs in the context of *conversation*, which includes an exchange of messages as well as processes of interpretation and coordination between conversational partners” (p. 26; emphasis in original). Most research to date has been primarily concerned with how individuals interpret and produce messages and the individual antecedents to these abilities rather than analyzing the coordination patterns of supportive conversations (Jones & Bodie, 2014).

Methodological choices of past work constitute one culprit for this focus. In general, research on supportive communication has used hypothetical scenarios to elicit stress, then asked participants to rate messages that vary in particular characteristics to document how certain types of messages are likely to be interpreted or processed (see High & Dillard, 2012). By removing

social support from a conversational context, however, we are not well informed about how people accomplish supportive communication. Even when scholars do focus on supportive interactions, coding tends to be at the aggregate level with a primary focus on how the interlocutors feel about the conversation in general (i.e., satisfied or dissatisfied) or with the support they report receiving from that interaction (e.g., Priem & Solomon, 2015; Feeney & Collins, 2014). Research on coordination that is applicable to supportive communication suggests that mimicking the emotions of another can signal involvement and approval (Kendon, 1970), enhance bonding (Condon, 1980), and help facilitate emotional recognition (Niedenthal, 2007). Engagement, involvement, and perspective taking are accomplished through coordination and are important and influential behaviors in supportive interaction (Jones, 2011). Therefore, focusing on how interlocutors accomplish these actions should provide a distinct perspective on language use in troubles talk.

The Focus of this Dissertation

The focus of my dissertation is to explore three different conceptualizations of linguistic coordination (i.e., LLR, LSM and AG) that occur during a supportive conversation, using two separate studies. As a methodological contribution, Study 1 uses computerized textual analysis software programs and statistics, while Study 2 uses discourse analytic techniques both to analyze coordination patterns and to make claims about supportive communications. I used these techniques to answer two general research questions:

RQ1: In what ways do individuals coordinate language use within supportive conversations?

RQ2: What are the consequences of these forms of coordination?

In Chapter 2, I present a model of repetition that I created and used to understand and conceptually organize each measure of linguistic coordination. The Johnstone Boundary Condition Model (JBCM) provides a unified way to discuss each linguistic measure elucidating similarities, differences, and how these measures can be used together. Both studies in the dissertation provide a detailed interpretation of how each coordination measure was used in conversations that feature talk about problems and the consequences of using those coordination techniques.

Chapter 3 presents Study 1. It uses two measures of linguistic repetition, Language Style Matching (LSM) and Local Lexical Repetition (LLR), and analyzes their functions within supportive communication. For Chapter 3, I analyzed individual language choice, dyadic language choice, and the relationship between LSM and LLR to predict interpersonal supportive outcomes. In addition, I considered relationship history as a potential moderator of the effects of language outcomes. Chapter 4 presents Study 2, Alignment and Supportive Communication, in which I analyze three transcripts using discourse analytic techniques to make claims about supportive conversations and alignment.

Very little work has explored exactly how troubles talk is enacted. The two studies that comprise my dissertation respond to the call made by Burleson and Goldsmith (1998), who urged that researchers should focus on the intricate discursive moves people make while engaging in troubles talk, a call echoed again by Goldsmith (2004). Additional research is still needed given the recent musings of several researchers regarding the lack of emphasis on how individuals actually talk about and respond to problems and stressful events (High & Solomon, in press; Jones & Bodie, 2014; Metts et. al, 1995). This dissertation heeded that call, exploring coordinated interaction patterns within conversations about everyday stressors. In doing so, I

examine how dyads coordinate linguistic behavior to showcase how language use influences individual and dyadic outcomes relevant to social support.

In addition to exploring linguistic coordination patterns in supportive communication, this dissertation combines statistical and close textual analysis approaches to critically analyze the methodological choices for capturing repetition. By doing this I was able to explore the possibilities and limitations of each approach while investigating how discourse methods can inform large-scale textual analysis programs and how programs can integrate more discourse methods. Since no technology is ever neutral, researchers need to be aware of the design and usage of these programs and how each program assumes specific knowledge, realities, meanings, and interpretations of computerized output. With this dissertation, take a critical look at how programs and techniques concerning interaction can work together, and also how these programs can stem from different methodologies. Instead of relying on “mere-coding” that textual programs use, I explore how these statistical programs can be used in conjunction with discourse analytic/linguistic approaches to gain a broader and more nuanced way to analyze complicated and complex interactions.

In this dissertation I identify interpersonal linguistic coordination profiles that contribute to the enactment of support and the process of feeling better. By conceptualizing the three different coordination measurements using the JBCM, I was able to compare the similarities and differences of each measure. Where some computerized measures failed to analyze or code, discourse methods were able to compensate; where some discourse methods were deficient, textual programs were able to excel. The results from this dissertation can inform our choices and add to the growing literature on LSM, LLR, and AG and how these measures are conceptualized, coded, and ultimately used while describing interpersonal communication. This

dissertation combines software and discourse studies to challenge and contribute to the value of linguistic and communication research. The future of this endeavor is inherently a multidisciplinary task that includes exploring the value of combining software and discourse, examining the theoretical and methodological choices made in using these methods, investigating the tools needed to create and identify appropriate and ecologically valid measurements, and providing ways and examples of how to use these measurements in the attempt to represent language, interaction, and meaning. This dissertation addresses these issues while contributing to the growing literature of social support.

CHAPTER 2

CONSIDERING REPETITION

Just as language is present whenever people talk, repetition is present whenever people interact (Johnstone, 1994; Tannen, 2007). People use repetition to be playful, to emphasize a point, or to accomplish some form of connection or group synchrony (Merritt, 1994). But what exactly counts as repetition? If repetition is universal and a major resource in communication and dialogue, where are the boundaries of repetition? Can repetition be limited to purely syntax (e.g., using the same sentence structure), lexical items (e.g., repeating the same word), or pragmatic functions (e.g., asking multiple questions)? Although many theorists have studied repetition, each has approached this concept in slightly different ways. The purpose of this chapter is to present the boundary conditions of linguistic coordination, review literature on three different operationalizations of linguistic coordination, and apply the boundary conditions to each instantiation of linguistic coordination. The first two operationalizations will be used in Study 1, and the third measure will be used in Study 2.

Basics of Repetition

In an attempt to provide boundary conditions for the study of repetition, Johnstone (1994) interrogated the measurement of this potentially elusive but pervasive act. Arguably the most important assumption of Johnstone's model is that in order for repetition to occur, there must be a prior text. Somewhere or sometime before one utterance is (re)produced, another utterance has already been enacted; repetition can only occur after an original source (Johnstone, 1994).

After an original source is uttered, the repetition of that source can take various forms and be measured in multiple ways. But research on what repetition is and how repetition has been coded has been quite diverse. In an effort to organize this diversity, Johnstone (1994) outlined what types of repetition researchers need to consider, namely formal/semantic,

immediate/displaced, exact/non-exact, and self-repetition/other repetition. These four categories were originally part of a list of ten factors. The four selected for this dissertation are binary concepts. For instance, either repetition is immediate or it is displaced. The other six concepts that Johnstone outlined take an extralinguistic focus. I used Johnstone's four binary constructs (formal/semantic, immediate/displaced, exact/non-exact, and self-repetition/other repetition) to create and to provide the necessary boundary conditions to classify the distinctions among the three types of linguistic coordination that are the focus of this dissertation.

These four boundary conditions are displayed in Table 2.1. The Johnstone Boundary Condition Model (JBCM) shows how the three operationalizations of linguistic coordination fit into each condition (to be explained below). I created this model for the purposes of my dissertation and to provide a cohesive way to organize and discuss linguistic coordination.

Table 2.1: The Johnstone Boundary Condition Model

<u>Boundary Condition</u>	<u>LLR</u>	<u>LSM</u>	<u>AG</u>
Formal/Semantic	Semantic	Semantic	Semantic
Immediate/Displaced	Immediate	Displaced	Both
Exact/Non-exact	Exact	Non-exact	Both
Self/Other	Other	Other	Other

Notes: LLR =Local Lexical Repetition; LSM = Language Style Matching; AG = Alignment

Johnstone (1994) defined these boundaries such that the formal/semantic dimension refers to the types of linguistic elements that get repeated. Formal repetition is the repetition of syntactic or discourse forms or patterns, whereas semantic repetition repeats lexical items or intonation (intonation is not considered here). If a speaker uses the same story structure as her

partner, then that repetition would be considered a formal repetition. Conversely, if a speaker repeats the same coda or uses the same words, that is a case of semantic repetition.

The immediate/displaced distinction considers where in the discourse the repetition takes place. If the repetition occurs in the next turn, then the repetition is considered an immediate repetition. If, however, the repetition occurs in a later place in the discourse (e.g., Person A repeating at the end of the conversation something Person B said at the beginning), then the repetition is considered displaced. Immediate repetition typically functions as intensification (i.e., speakers placing emphasis on particular words), and displaced repetition can be conceptualized as textual cohesion (i.e., speakers continually talking about the same subject). How speakers manage, reference, and use each other's words depends on whence those words originally came within a conversation.

Exact/non-exact repetition is the basic idea of reformulation and refers to the "purity" of repetition. Certain lexical items and phrases can be repeated exactly or inexactly; an individual can parrot back to the source using the exact words used by the source or paraphrase another's contribution using one's own words, as in a summary or gist of the source's contribution. If researchers are interested in analyzing how speakers present similar ideas, then non-exact repetition might be useful. However, if priming behavior or vocabulary production dependency is important, then exact repetition would be more useful.

Lastly, self-repetition/other repetition refers to a distinction between the source/creator of the original phrase or word that then gets repeated. Self-repetition is when a speaker repeats her/his own language, typically signaling a repair or an attempt to intensify a point. Other repetition is when one speaker repeats the language of another. Other repetition is the main focus of linguistic coordination because coordination requires two people organizing interaction

together. This dissertation will not focus on self-repetition, as that behavior is related to intrapersonal behavior; other repetition is interpersonal in nature.

Three Measures of Linguistic Coordination

The JBCM provides a framework to organize distinctions among various types of linguistic coordination. Below, I present three different operationalizations of repetition: local lexical repetition (LLR), language style matching (LSM), and alignment (AG), and define each measure in terms of the JBCM.

Local Lexical Repetition (LLR)

The first instance of linguistic coordination is operationalized as local lexical repetition (LLR) (Cannava & Bodie, 2015). LLR is a turn-by-turn analysis of exact semantic repetition. LLR is calculated by analyzing the percent of shared words between speakers after every turn, such that, for any given conversation, there is a degree to which speakers are using the same words. Most of the previous research on what would be considered “exact” repetition has been on memory, retention, and priming (Roediger & Challis, 1992; Dewhurst & Anderson, 1999; Woltz, 1990) and first and second language acquisition (Jesen & Vinther, 2003; Larsen-Freeman, 2012). In general, previous work has shown the importance of exact repetition training on word identification, correct usage of language, and faster recall of words.

In terms of the JBCM, LLR is a *semantic* form of repetition. LLR only takes into account when one speaker uses the same word as another. LLR does not look at pitch, tone, rhyme or other formal elements of speech; instead LLR is a calculation of vocabulary production and frequency.

Second, LLR is an *immediate* form of repetition, meaning that only words that are repeated in the very next turn in a conversation can be counted as repetition. LLR does not

extend the focus of repetition to more displaced repeated items or items that happen in various locations of a conversation. Instead, LLR only analyzes instances of repetition that happen immediately after the source word was first produced.

Third, LLR is a form of *exact* repetition. As a form similar to semantic repetition, LLR only looks at words that are exactly the same. Syntax, discourse frames, saying the same thing in a different way, or using synonyms are not captured by LLR.

Finally, LLR is a form of *other* repetition as opposed to self-repetition. LLR needs at least two turns to calculate a percentage. LLR needs an exchange to happen between speakers so that the percentage is between two instances of talk.

Given the boundary conditions of LLR, this operationalization serves as my initial way to measure linguistic coordination. In particular, LLR analyzes instances of repetition that are exact words occurring in the immediate turn between two speakers. LLR is similar to other “turn-by-turn” analyses such as language style synchrony (LSS) (Lord et al., 2014) because of the temporal/immediate aspect, however LSS focuses on repetition within categories of words rather than exact repetition of specific words. As such, LLR represents a more primitive and basic form of repetition.

Language Style Matching (LSM)

The second measure of linguistic coordination is language style matching (LSM), which is operationalized by the matching of nine word categories over the entire course of a conversation. LSM is calculated as a particular grouping of nine word categories called function words – auxiliary verbs, articles, common adverbs, personal pronouns, indefinite pronouns, prepositions, negations, conjunctions, and quantifiers. LSM is a “marker of engagement, or the degree to which [interlocutors] are paying attention to each other” (Pennebaker, 2011, p.200).

This metric suggests the ways in which conversational partners listen and attend to one another.

LSM is explained as “the degree to which two people in a conversation subtly match each other’s speaking or writing style ... and is thought to map directly onto the interpersonal coordination of psychological states” (Ireland, et al., 2011, p. 39).

Research on LSM has found that the matching of function words is related to empathic behavior (Ireland & Pennebaker, 2010), relationship initiation and stability (Ireland, et al., 2011), and group cohesion (Gonzales, Hancock, & Pennebaker, 2010). LSM is also a predictor of the perception of support through computer-mediated communication (Rains et al., 2015); that is, distressed people perceive that their interactional partner is a willing support provider when LSM is relatively high. In a similar vein, researchers developed a more nuanced index of LSM, called LSS (language style synchrony) (Lord et al., 2014), which predicts empathy ratings between therapists and clients with high-empathy therapists showing greater LSS.

Within the JBCM, LSM is first a form of *semantic* repetition. LSM only focuses on words and word frequency and on a particular subset of all possible words uttered in a conversation (i.e., function words).

Second, LSM is a form of *displaced* repetition. For LSM, repeating words can happen at any time during a conversation. In fact, LSM is a function of the entirety of each speaker’s produced language; thus matching as indexed by LSM includes all function words used regardless of their placement in the conversation. LSM does not take into consideration the timing or structure of the matched words in a conversation. Therefore, LSM analyzes repetition in a displaced manner.

Third, LSM is a form of *non-exact* repetition. LSM is calculated by the shared frequency of word categories. Each of the nine relevant categories includes a certain number of words

(e.g., the auxiliary verb category is comprised of 144 words, negations includes 57 words; see Table 2.2 for examples). Speakers “match” each other when they use the same percentage of words from all categories over the entire course of talk. Speakers have numerous production options to create a match (e.g., “other-whatever” and “this-those” are both considered “matching”). Thus, LSM allows non-exact forms of repetition by considering matching to be similar percentage of word category production.

Table 2.2 LIWC Function Word List

<u>Category</u>	<u>Example</u>
Personal Pronouns	I, his, their
Impersonal Pronouns	It, that, anything
Articles	A, an, the
Conjunctions	And, but, because
Prepositions	In, under, about
Auxiliary verbs	Shall, be, was
High- Frequency adverbs	Very, rather, just
Negations	No, not, never
Quantifiers	Much, few, lots

Source: LIWC2007 (Pennebaker, Booth, & Francis, 2007)

Finally, LSM is a form of *other* repetition. LSM is calculated by how similar speakers are to each other rather than how a speaker repeats himself/herself.

In sum, LSM is a form of displaced-semantic-other-repetition. LSM measures the similarity of frequency of word categories between speakers. Conceptually, LSM is similar to latent semantic analysis (LSA) (Landauer, Foltz, & Laham, 1998) because of the focus on similar word categories that occur throughout an entire text (rather than adjacent pairs). LSA is more concerned with clusters of words that co-occur with each other in order to model natural

language and the contextual use of words. LSA is not concerned with the measure of similarity between speakers and is not conceptualized as such. LSM, on the other hand, is theoretically driven by the relationship between speakers rather than conversational pragmatics. LSA is more a measure of cohesion and the theoretical pragmatics of a conversation, whereas LSM was first driven by and conceptually thought of as a way to measure closeness in a relationship (Ireland, et al., 2011).

Alignment (AG)

Alignment is the final operationalization of linguistic coordination used in this dissertation. It compares the level of agreement of stances between two speakers. Alignment is a term used to describe “the act of calibrating the relationship between two stances, and by implication between two stancetakers” (Du Bois, 2007, p. 144). Speakers become aligned when they take a similar stance in relationship to an object. Du Bois (2007) defined stance as “a public act by a social actor, achieved dialogically through overt communicative means, of simultaneously evaluating objects, positioning subjects (self and others), and aligning with other subjects, with respect to any salient dimension of the sociocultural field” (p. 163); it is the “smallest unit of social action” (p. 173). As such, stance analysis is a method to identify instances of intersubjectivity between speakers (Du Bois, 2007). Alignment is best represented by the stance triangle (Figure 1.1).

A stance is usually a statement of affective (e.g. “I like coffee”) or epistemic (“I don’t know”) evaluation. Affective stance occurs as statements of liking or disliking, affiliation or disaffiliation, or preference or dispreference; it communicates an evaluation of an object. An epistemic stance communicates how sure a speaker is of her perception; these stances usually take the form of knowing or not knowing. Both types of stances are comprised of three distinct

components: a subject (who the speaker is), an object (what the speaker is talking about), and an evaluation (what stance a speaker is responding to). When a speaker takes a stance and evaluates an object, all acts of evaluation position the speaker among others, which then determine the amount of alignment speakers have with each other.

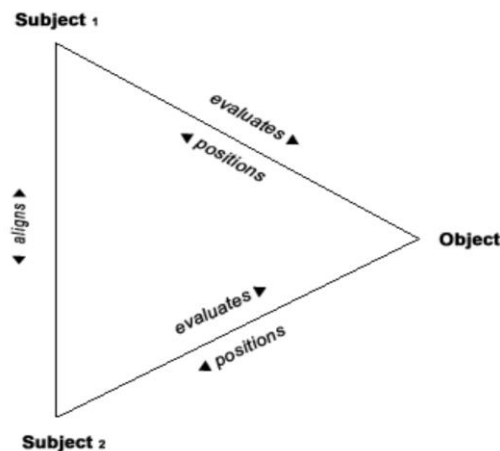


Figure 1.1: The Stance Triangle (Du Bois, 2007)

When a speaker takes a stance, she is (a) actively taking responsibility for a particular position, (b) displaying a specific identity, and (c) communicating intersubjective alignment (or disalignment) with another speaker. A stance is always in relation to another voice or another stance; stancetaking is ultimately built into the act of communication (Jaffe, 2009).

Alignment can take the form of a “stance follow” (Du Bois, 2007) in which a speaker takes up the stance made in a prior utterance. All alignment moves, at a basic level, recognize the stance taken by a speaker and include traces of that stance in an utterance (Jaffe, 2009). Therefore, the alignment of stances between speakers is one way to operationalize interpersonal coordination.

In terms of the JBCM, AG is, first, a *semantic* form of repetition. Similar to LLR and LSM, AG is an analysis of the types of words people use and how people express similar attitudes and evaluations. AG does not consider similar language structure, such as repetition (this would be formal repetition); instead, AG focuses on the content of an utterance and what that utterance is attempting to communicate.

Second, AG can be either *immediate* or *displaced*; it does not matter where alignment happens in a conversation. Turn taking is an important component, and alignment can happen immediately in the next turn after one speaker takes a stance in the previous turn. That being said, alignment also can occur throughout a conversation, as a speaker can take a stance at the beginning of a conversation that can be agreed (or disagreed) with and repeated by the other near the end. What matters for AG is when two speakers take similar stances; thus, the analysis calls for the tracking of content rather than the placement or timing of alignment.

Third, AG constitutes both a form of *exact* and *non-exact* repetition. Speakers do not have to use the same words to become aligned, although using the same words does not disqualify an inter-act as an act of alignment. For example:

1. Speaker A: I like dogs.

Speaker B: I like dogs.

Exact Repetition.

There is alignment in Example 1 since both speakers are evaluating the same object by taking a similar position; speakers also are using the exact same words to accomplish that alignment. But speakers do not always rely on this strategy to align, as in Example 2-5:

2. Speaker A: I like dogs.

Speaker B: I like dogs too.

Non-exact Repetition

3. Speaker A: I like dogs.

Speaker B: Me too.	Non-exact Repetition
4. Speaker A: I like dogs	
Speaker B: I am fond of dogs.	Non-exact repetition
5. Speaker A: I like dogs.	
Speaker B: They are great.	Non-exact repetition
6. Speaker A: I like dogs.	
Speaker B: I like cats.	Non-alignment

Examples 2-5 all are examples of alignment using non-exact repetition. In these examples, the same idea is being expressed with very different lexical choices. The evaluations of both speakers are not exactly the same, but both stances have taken the same position (a positive evaluation of dogs). Typically, although the evaluation can display a large range of freedom, the object is the main component that needs to be repeated. In particular, speakers must be talking about the same object to be considered in alignment. Examples 3 and 5 show instances where the object does not necessarily have to be explicitly repeated in order for alignment to occur. In Example 6, although the evaluation is exactly the same, the speakers are not relating to the same object; therefore, there is no alignment occurring. AG does not need to be an exact form of repetition, but there are certain semantic elements that need to be implicitly repeated for stances to become aligned.

Lastly, similar to LLR and LSM, AG is a measure of *other* repetition. Again, this dissertation focuses on how two people coordinate their language use, so each operationalization of repetition has an “other” focus.

Conclusion

This chapter provides the theoretical background for analyzing language use and repetition and offers three measures for examining interpersonal supportive communication. These measures and how they relate to each other give us a framework to discuss the similarities and differences among them. With the JBCM, we have a framework within which to talk about these measures, and other coordination measures, with similar parameters. This dissertation seeks to accomplish an in depth analysis of how language is used both individually and dyadically, and the JBCM provides a framework in which to do this.

Chapter 3 serves as Study 1 and predicts supportive outcomes from various individual and dyadic language variables. Study 1 uses the measures of LLR and LSM to make claims about supportive talk. Chapter 4 serves as Study 2 and uses AG and discourse analytic techniques to investigate how supportive communication is accomplished. Study 2 analyzes three transcripts coded for stance and alignment. These studies allow us to understand the interpersonal and pragmatic features of language and linguistic coordination.

CHAPTER 3

LANGUAGE USE AND COMPUTATIONAL REPETITION

The purpose of this chapter is to analyze linguistic coordination within the context of supportive communication. To this aim, I am analyzing individual language choices, dyadic language choices, and the relationship between Language Style Matching (LSM) and Local Lexical Repetition (LLR) to predict interpersonal supportive outcomes. In addition, I consider relationship history as a potential moderator of the effects of language outcomes.

The Influence of Language on Three Outcomes of Supportive Conversations

A growing body of empirical research has shown that language is predictive of how people cope with stressful events. Certain ways of writing and talking about thoughts and feelings can be beneficial for emotional well-being and physical health, while other ways of writing and talking can be detrimental to these same measures of health (Pennebaker, 1997; Smyth & Pennebaker, 2008). The act of disclosing emotions, whether in writing or by speaking, can provide ways to create a coherent narrative (Pennebaker & Seagal, 1999), reappraise an event (Folkman, Lazarus, Dunkel-Schetter, DeLongis, & Gruen, 1986; Lazarus & Folkman, 1984), and to label emotions (Creswell, Way, Eisenberger, & Lieberman, 2007; Keltner, Locke, & Audrain, 1993; Pennebaker, 1993). Results such as these provide support for analyzing the language of stressful events.

The coordination of language use between interlocutors is an important component of the coping process (Jones, 2011). Distressed individuals prefer interacting with listeners who pay attention and show involvement in a conversation (Bodie & Jones, 2012; Bodie, Vickery, Cannava, & Jones, 2015; Bodie, Vickery, & Gearhart, 2013; Jones, 2011). An attentive listener relies on coordination and interdependence both linguistically and non-linguistically (Bodie, Cannava, Vickery, & Jones, in press; Cannava & Bodie, 2013). Because talking with others is a

primary way to cope with stress (Rimé, Mesquita, Philippot, & Boca, 1991), it is important to understand how conversation, and the language used within conversation, influences individual well-being. This study explores how individual language use and coordinated language patterns influence three important outcomes of supportive conversations.

Emotional Improvement

Emotional improvement, or the facilitation of emotional change, is generally thought of as a primary outcome of the comforting process (Jones, 2004; Burleson & Samter, 1985).

Although supportive conversations can be described as exhibiting multiple goals, the emotional improvement of the discloser is the primary goal (Burleson & Goldsmith, 1998), and emotional improvement can be fostered through individual or coordinated language use. Jones and Wirtz (2006) found that disclosers who interact with supportive conversational partners generally produced more positive emotion words, which led to higher reports of emotional improvement. Talking about a stressful event can improve how a distressed individual feels about that event.

Cognitive Reappraisal

Cognitive reappraisal is the second main objective in troubles talk and refers to a primary emotion regulation strategy involving a revaluation of a problematic situation (Burleson & Goldsmith, 1998). Cognitive reappraisal is a primary mechanism linking supportive conversations to emotional improvement. Jones and Wirtz (2006) found that certain language choices, particularly the frequency of positive emotion words, influenced the process of thinking differently after a supportive conversation. The model supported by Jones and Wirtz came from Burleson and Goldsmith's theory of cognitively induced reappraisals which posits that a listener and a discloser work together to coordinate their language use while engaging in a supportive conversation. For a stressful event to be reevaluated, a listener must show empathy and

involvement while providing challenges or reinterpretations of the initial story, aspects of conversations that suggest a role for language coordination.

Perceived Understanding

People have a basic need to be understood (Cahn, 1990), and research indicates that feeling understood is related to emotional support and perceived cooperation (Cahn & Frey, 1989). Perceived understanding also influences successful maintenance of communication patterns; communication requires mutual understanding. Understanding builds over time (Cahn, 1984), during which individuals are increasingly able to recognize each other's emotions and thoughts. Previous research on repetition has shown that people repeat each other to communicate understanding or empathy (e.g., Bavelas et al., 1986). Ultimately, understanding is posited as a core outcome of repetition, particularly in conversations about stressful events.

Individual Language Use and Support Outcomes

The disclosure of thoughts and emotions, whether through writing or talking, has been found beneficial for emotional well-being and physical health (Pennebaker, 1997; Smyth & Pennebaker, 2008). By actively expressing emotions, individuals can cope more effectively with their problems (Pennebaker & Seagal, 1999, Folkman, Lazarus, Dunkel-Schetter, DeLongis, & Gruen, 1986; Lazarus & Folkman, 1984). More recently, research on the ways in which people use language in supportive conversations has shown that particular types of words are more beneficial or detrimental than others (Jones & Wirtz, 2006; Niederhoffer & Pennebaker, 2002). Specifically, the use of positive emotion words represents one linguistic category of theoretical interest that have been shown to have a beneficial influence on health and well-being.

Positive Emotion Words

Evidence from research that has examined writing about (Campell & Pennebaker, 2003) and talking through (Mehl & Pennebaker, 2003; Rimé, Mesquita, Philippot, & Boca, 1991) problems provides strong support for a link between positive emotion word use and emotional improvement. In particular, the leading model accounting for the role of positive emotion words to the feeling better process, the summed emotions model, suggests that positive outcomes are a linear function of the frequency of positive emotion word use from a discloser. Research in the realm of supportive conversations (talking about stressors instead of writing about stressors) found support for this model. In line with the summed emotions model, Jones & Wirtz (2006) found that the production of positive emotion words helped foster emotional improvement by facilitating cognitive reappraisal. Based on research showing that positive emotion words improve outcomes, I developed the following hypothesis:

H1: Positive emotion word use by a discloser is a positive predictor of emotional improvement, cognitive reappraisal, and perceived understanding after a supportive conversation.

In this study, the proportion of positive emotion word use functions as a control variable to help isolate the influence of the two linguistic coordination variables, based on previous research showing that positive emotion word use is a significant predictor of supportive outcomes (Jones & Wirtz, 2006). By controlling an individual linguistic category that is already known to produce positive outcomes, I was able to show how linguistic coordination adds to the feeling better process.

Linguistic Coordination in Supportive Conversations

Language Style Matching (LSM) and Local Lexical Repetition (LLR) are proposed as conceptually distinct forms of linguistic coordination. Each is proposed to have unique properties, described in Chapter 2 and organized by the Johnstone Boundary Conditions Model (JBCM). Although both are other-focused and semantic forms of linguistic repetition and take into account the entire text of a conversation, LSM is a displaced and non-exact form of coordination, while LLR is an immediate and exact measure. LSM, as a non-exact measure, analyzes linguistic category similarity, which amounts to synonyms of a certain small subset of words throughout the entirety of a conversation. Conversely, LLR only measures the number of exact words used per turn. These distinctions are shown in Table 3.1.

Table 3.1: Linguistic Coordination and the Johnstone Boundary Condition Model

<u>Boundary Condition</u>	<u>LLR</u>	<u>LSM</u>
Formal/Semantic	Semantic	Semantic
Immediate/Displaced	Immediate	Displaced
Exact/Non-exact	Exact	Non-exact
Self/Other	Other	Other

Notes: LLR =Local Lexical Repetition; LSM = Language Style Matching

LSM and LLR, although different, can capture some of the same conversational actions. Because LLR is a measure of exact repetition, it calculates the extent to which individuals use the same category of words while generating a repeated message. If speakers produce the same function words in a turn, that repetition will contribute to both the LSM and the LLR score. LSM ultimately measures and includes those LLR words that will fit into the LSM equation

(auxiliary verbs, articles, common adverbs, personal pronouns, indefinite pronouns, prepositions, negations, conjunctions, and quantifiers) in adjacent utterances. Formally, I predict:

H2: The relationship between LLR and LSM is positive and linear but not larger than moderate in magnitude.

Language Style Matching and Supportive Outcomes

LSM is conceptualized as a marker of conversational engagement. LSM is comprised of function words. Therefore, a listener might use similar language as a discloser if the listener is actively involved in co-narrating the stressful event. An engaged listener might show attention by using the same words (or synonyms), and that attentiveness should influence the perception of comfort and support and eventually lead to the emotional improvement of a discloser (Cannava & Bodie, 2013).

LSM should positively predict cognitive reappraisal. LSM is a marker of engagement in a conversation, and engaged listeners typically influence positive outcomes in a discloser after a supportive conversation. Higher rates of LSM should be an indicator of interest, concern, and empathy in a conversation, all of which should help facilitate cognitive reappraisal.

Finally, LSM should also be a positive predictor of perceived understanding. The matching of language helps showcase similar thinking styles and potentially similar personality traits (Ireland & Pennebaker, 2011). Previous research on style matching in a therapeutic context revealed that patients rated their therapist as more empathetic and satisfying to talk to when conversations had high amounts of matching (Lord et al., 2014).

Based on the above logic, H4 posits the relations between LSM and outcomes:

H3: LSM is a positive predictor of emotional improvement, cognitive reappraisal, and perceived understanding reported after a supportive conversation.

Relationship Status

The supportive conversations examined here occur between people who have different relational histories. Rimé et al. (1991) explained that the disclosure and sharing of emotions is done between close others, such as friends most of the time (85%) and less so with strangers (15%). Most research on supportive conversations uses strangers, but since most disclosures of problems is actually with close others, researchers need to explore the potential discrepancies that might occur across multiple relationship types. Different relationship types might enact support in unique and nuanced ways, and theoretically, LSM is one way to represent linguistic differences among relationships.

LSM is purported to be a quantitative representation of relationship engagement and psychological similarity; thus, LSM scores should change as a function of relationship status. Pennebaker (2011) claimed that LSM “can illuminate our understanding of marriages, friendships, or alliances in history” (p. 218) and that “most conversations with good friends or lovers are characterized by high LSM” (p. 224). More generally, higher rates of coordination, both verbal and nonverbal, tend to covary with relational closeness. Matching another is connected to outcomes such as perceived empathy (Chartrand et al., 1999), bonding (Dijksterhuis, 2005), liking (Lakin et al., 2003), and affiliation (Johnston, 2002), all of which are contributors to intimacy. Rose (2002) reported that engaging in co-rumination with another person increases ratings of intimacy, and Planalp (1993) found that relationship status influences how interlocutors speak to each other, showing that friends, compared to strangers, are more likely to rely on knowledge that is personal and shared. Interaction coordination in general is linked to outcomes associated with connection; in fact, coordination decreases when people want to disaffiliate from each other (Chartrand & van Baaren, 2009). It thus stands to reason that

relationship status will impact the ways in which people talk to one another. Based on these previous studies, I developed the following hypothesis:

H4: LSM varies as a function of relationship status such that friends are more likely to exhibit higher levels of LSM than strangers.

Local Lexical Repetition and Support Outcomes

LLR is a new construct that is being explored for the first time in the dissertation; thus, I have opted to make no formal predictions about LLR in favor of exploring the nature of this variable in supportive conversations. LLR was created as an alternative to the LSM variable and was made by the insights from linguistic and discourse analytic fields. Previous literature on LSM gave me some insight into how a particular form of linguistic coordination does work, and LLR might follow similar predictive patterns of LSM. Conversely, because LLR is conceptually and operationally distinct from LSM, the relations between it and outcomes may be different (in kind and/or degree) than LSM.

In terms of outcomes, LLR should be a positive predictor of emotional improvement, since the repetition of exact words can be seen as a sign of empathy and involvement in a conversation. Research has shown that the repetition of exact words tends to increase prosocial behavior (Kulesza et al., 2013), perceptions of empathy during therapy (Lord et al., 2014), and perceptions of agreement and willingness to hear more in therapy (Ferrara, 1994). Repetition, specifically in a therapeutic context, can positively influence the experience of the discloser. If repetition promotes the perception of empathy and willingness to help another, a listener who repeats a discloser should influence the emotional state of the discloser.

Based on the above previous research and what is already known about LSM, I posit the following research question:

RQ1: How does LLR work in supportive conversations on the following variables: (a) emotional improvement, (b) cognitive reappraisal, (c) perceived understanding, and (d) on relationship status.

Methods

Participants

The sample for this study was comprised of 270 dyads enrolled in introductory Communication Studies courses at Louisiana State University A&M and 41 dyads enrolled in similar courses at the University of Minnesota, Twin Cities. Participants received a small portion of course or extra credit (3%) in exchange for participation. Based on voluntarily provided demographic information, students were on average 20.4 years old ($n = 445$, 103 missing, $SD = 3.79$), and the majority female (55.5%). Participants reported predominantly Caucasian ethnicity (60.7%) but also African American (13.3%), Asian American (3.8%), and other (3.8%, 18.2% missing) ethnicities.

Procedure

An announcement was posted on the Research Participation System and included instructions for students to either come alone or with a friend to a one-hour laboratory session. Participants were paired into dyads in one of two ways. All individuals participating in the study that did not identify a close friend came to the laboratory alone and were paired with either another student (119 dyads) or a confederate trained in active listening techniques (29 dyads). These dyads are referred to as “stranger” conditions. Individuals who came with a friend to the laboratory interacted with their friend (122 dyads). Upon arrival for their appointments, two research assistants (RAs) greeted participants; in the stranger condition, RAs ensured participant did not know each other. After providing written consent, the RAs followed a script (see

Appendix A), first having participants draw slips of paper to randomly assign the conversational roles of “discloser” and “listener.” In the confederate condition, the confederate was always allowed to select the slip and was instructed to always pull the role of listener. For friend dyads, the individual signing up for the study was always the discloser (see Appendix B). Participants were then briefly separated to complete individual measures. Listeners filled out scales not germane to the present set of studies (e.g., Big Five Inventory), while disclosers identified and rated two recent emotionally distressing events on a one (“*not at all emotionally distressing*”) to seven (“*very emotionally distressing*”) scale (see Appendix C). Research assistants then chose the event to be discussed. They were trained to select primarily academic events, or if no academic events were listed, the event with the lower rating. Participants were reunited in the observation portion of the laboratory where one of the RAs provided further instructions to both participants. Participants were given one minute to engage in small talk and were signaled by a knock on the wall to engage in a 5-minute video recorded conversation about the selected event. After this conversation, participants were separated for a final time and completed various post-conversation measures including measures of the dependent variables.

Transcripts were compiled from the videotaped conversations. Only linguistic content was captured; vocalizations and other non-linguistic elements such as tone and pitch were not transcribed. Two trained graduate students created the transcripts and checked them for accuracy. One student first created the transcript, and the second student checked for mistakes, discrepancies, and missed words after the initial transcript was created.

Outcome Measures

Emotional improvement. Emotional improvement (EI) is the fostering of improvement in or alleviation of negative emotions (Burleson, 2009; Jones & Wirtz, 2006). To measure EI,

disclosers answered three items from the Comforting Response Scale (R. A. Clark et al., 1998) used in prior work to assess emotional improvement (Jones & Wirtz, 2006). As an appropriate measure of EI, all items reference the emotional state of the discloser after the conversation. Items were: (a) I feel better after talking with my conversational partner, (b) I feel more optimistic after talking with my conversational partner, and (c) My conversational partner made me feel better about myself. These items were scaled using 7-point Likert response options and met appropriate standards of model fit, $\chi^2(1) = 1.98$, CFI= .99, though the error estimate was a bit high, RMSEA= .22, potentially due to the low degrees of freedom (Kenny, Kaniskan, & McCoach, 2011).

Cognitive reappraisal. Cognitive reappraisal (CR) is defined as thinking about a situation differently. The discloser was asked to respond to the following item drawn from the work of Jones and Wirtz (2006): I understand the situation better now that I talked about it with my conversational partner¹. Scaling was along 7-points (Strongly Agree – Strongly Disagree), and the item was randomized with the EI items listed above.

Perceived understanding. Perceived understanding (PU) is the degree to which a conversationalist perceives or believes that her/his conversational partner comprehends or understands the meaning of a disclosure. To measure perceived understanding, disclosers and listeners responded to five items from the Active-Empathic Listening Scale (AELS) (Bodie, 2011). Disclosers answered items with the prompt “my friend” or “my conversational partner” depending on condition. Item were (a) listened for more than just the spoken words, (b) understood how I felt, (c) was aware of what I implied but did not say, (d) asked questions that showed an understanding of my position, (e) was sensitive to what I was not saying. These items

¹ Although strangers were asked to answer four items relating to cognitive reappraisal, friends were only asked to respond to this one item. Therefore, only this one item was used in the analyses that follow.

were scaled along 7-points with the endpoints of (1) *Never or almost never true* and (7) *Always or almost always true* and met appropriate standards of model fit, $\chi^2(5) = 7.32$, CFI= .98, RMSEA= .06 (90% CI = .00, .14).

Measurement of Individual Language Use and Linguistic Coordination

After each transcript was originally created (see above), the final transcripts were further prepared to undergo analysis by the Linguistic Inquiry and Word Count (LIWC) program (Pennebaker, Booth, & Francis, 2007). First, the original dyadic text was split into two files, one including the total word count per listener and the other including the total word count per discloser. After organizing the files to be analyzed separately, transcripts were examined for proper word use or misspelling (e.g. changing ‘cuz’ to ‘because’). Due to the use of oral transcripts, rather than purely written text, this came with particular procedures. Nonfluencies are not recognized by the LIWC program and were hence eliminated. For example, Pennebaker (personal communication, 18 January 2013) outlined that (a) uh-uh and uh-huh should be changed to “no” and “yes”; (b) “huh?” should be changed to “what?” and (c) any transcribed laughter (e.g., ‘haha’, ‘LOL’) should be deleted. Also, all fillers were changed to comply with standard transcription preparation outlined by the LIWC manual. When the transcribers could not understand a word or if it was difficult to make out, we inserted ‘xxxx’ so that although a word was spoken and accounted for, the LIWC program does not assign it to a category.

Positive emotion words. LIWC was used to capture how many positive words the discloser used throughout the entirety of the conversation. LIWC recognizes 381 words in this category (see Appendix D for the full list of positive emotion words).

Local Lexical Repetition (LLR). To analyze the degree of LLR in the conversations, I used the computer program Discovery of Conversational Text Redundance (DOCTR) (Boyd,

Pennebaker, Blackburn, Ferrell, Malin, Cannava, & Seih, 2014). DOCTR is a software package that can be used to research various turn-by-turn dynamics in a conversation as two or more entities engage with each other. DOCTR can process text and produce meaningful indices of shared language, allowing for the quantification of language-based group behaviors. Although DOCTR gives output for over 47 variables (see <http://doctr.ryanb.cc>), the main variable of interest is the Percent of Total Words Sourced from Previous (i.e., the percentage of *total* words for the current response that were sourced from the previous utterance). DOCTR also provides a list of all the matched words in the conversation. DOCTR calculates variables for both the entire conversation as well as on a turn-by-turn basis. Consider the following example from Dyad S109:

A: Whose fault was it?
B: It was the little girl's fault. (50% turn-by-turn LLR)
A: It was, so it wasn't your fault. (57.14% turn-by-turn LLR)
B: Yeah it wasn't my fault (60% turn-by-turn LLR)
Total LLR: 55.71% ((50% + 57.14% + 60%)/3)

In this example, the first turn has a 50% Percent of Total Words Sourced from Previous score because three of the six words were sourced from the previous utterance (it, was, fault). Using this turn-by-turn measure, the turn-by-turn LLR score was then calculated by averaging the total of repetition per turn so that there is a percentage of the total averaged amount of repetition (Boyd et al., 2014). The total LLR score for this conversation is 55.71% because 55.71% of the words used in the conversation were repeated throughout. Depending on the speaker of interest, researchers are able to identify what percentage of a speaker's language is being replicated, or the amount of another's language that is present in the produced speech. DOCTR accounts for every word said, not just specific categories (as found in other types of language coordination equations).

Language Style Matching (LSM). Language Style Matching is a measure of correspondence across a variety of words classified as function words. In line with the original conceptualization, LSM was calculated by indexing nine different function word categories (see Table 2.2). Each participant had an individual LSM score that was used to calculate a dyad LSM score using procedures outlined by Gonzales et al. (2010). The dyad LSM score was calculated as follows: the absolute value of the difference between two speakers and was divided by the total for each category. A LSM score ranges between 0 and 1, with scores of .60 and lower reflecting relatively low synchrony and .85 and higher representing high synchrony (Gonzales et al., 2010).

Analytic Strategy

I conducted correlation and hierarchical multiple regression analysis to test the relations between the various linguistic coordination measures and the outcome variables of supportive conversation (H1-H5). With $N = 270$ and alpha set at .05, power for the Pearson Product Moment Correlation Coefficient (two-tailed) was .48 for small effects ($r = .10$) and above .99 for moderate ($r = .30$) and large ($r = .50$) effects.

For regression models, power was calculated for predictor blocks, controlling for prior blocks. First, for the prediction of outcomes as a function of PEW (controlling for dyad type), power was .65 for small effects ($f^2 = .02$) and above .99 for moderate ($f^2 = .15$) and large effects ($f^2 = .35$). Second, for the prediction of outcomes as a function of LLR and LSM (controlling for dyad type and PEW), power was .49 for small effects and above .99 for moderate and large effects. Third, for the prediction of outcomes as a function of all two-way interactions (controlling for dyad type, PEW, and measures of repetition) power was .46 for small effects and above .99 for moderate and large effects. Fourth, for the prediction of outcomes as a function of

all three-way interaction terms (controlling for dyad type, PEW, measures of repetition, and all two way interactions) power was .42 for small effects and above .99 for moderate and large effects. Finally, for the prediction of outcomes as a function of the four-way interaction (controlling for dyad type, PEW, measures of repetition, all two way interactions, and all three way interactions) power was .63 for small effects and above .99 for moderate and large effects.

Results

Table 3.2 displays the bivariate correlations between all included variables. H1 predicted that positive emotion word use by a discloser is a positive predictor of outcomes. As shown in Tables 3.2 and following tables, results do not support this hypothesis. In none of the analyses was PEW use predictive of outcomes, shown in Table 3.3. H2 predicted that the relationship between LLR and LSM is positive and linear but not larger than moderate in magnitude, and results do not support this hypothesis. As shown in Table 3.2, LSM and LLR are not correlated with each other.

Table 3.2: Bivariate Correlations for all Included Variables

	1	2	3	4	5	6
1. Dyad Type	---					
2. EI	.16*	---				
3. CR	.21**	.68**	---			
4. PU	.21**	.49**	.40**	---		
5. PEW	.11	.11	.11	-.02	---	
6. LLR	.12	-.01	.09	.13*	.01	
7. LSM	.02	.14*	.19**	.07	.07	.05

Notes: EI= Emotional Improvement, CR= Cognitive Reappraisal, PU= Perceived Understanding, PEW= Positive Emotion Words; LLR = Local Lexical Repetition; LSM = Language Style Matching; * $p < .05$; ** $p < 0.01$; *** $p < .001$; all correlations 2-tailed.

H3, H4, and RQ1 were tested using hierarchical regression techniques, the results from which are presented in Tables 3.3, 3.4, 3.5, 3.6, and 3.7. For each dependent variable (emotional improvement, cognitive reappraisal, perceived understanding), dyad type was entered in the first block, positive emotion words in the second block, LLR and LSM in the third block, all the two-way interactions in the fourth block, and the three-way interaction term in the final block.

H3 predicted that LSM is a positive predictor of outcomes, and results partially supported this hypothesis (see Tables 3.2-3.5 and 3.7). LSM was a significant predictor of emotional improvement and cognitive reappraisal, but not perceived understanding. H4 predicted that LSM values would be higher for friends than strangers. As seen in Table 3.3, contrary to H4, relationship history does not seem to influence LSM scores.

RQ1 posited that LLR would potentially behave the same way as LSM on emotional improvement, cognitive reappraisal, perceived understanding, and vary as a function of relationship status. LLR did not predict any outcomes, as seen in Tables 3.2- 3.5 and 3.7, but LLR does vary as a function of dyad type, seen in Tables 3.3 and 3.4.²

Table 3.3: Descriptive Statistics for all Individual Language Category by Relationship Status

	Strangers		Friends	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
PEW	4.56	2.03	4.99	1.92
LSM	0.60	0.19	0.61	0.18
LLR	13.11	5.45	14.31	4.75

Notes: PEW = Positive Emotion Words; LSM = Language Style Matching; LLR = Local Lexical Repetition

² As a complement to the zero-order correlations, I also ran independent samples t-tests using friends and stranger dyads as the grouping variable and LLR and LSM as separate DVs. There was a significant difference between strangers and friends on LLR, showing that friends repeated each other slightly more than strangers, $t(268) = 1.91$, $p < .05$, $r^2 = .01$. No difference was detected for LSM, $t(268) = .37$, $p = .71$ or PEW, $t(268) = 1.76$, $p = .08$.

When looking at the descriptive data, I discovered an interesting pattern (see Table 3.4). In particular, and complementing the zero-order correlations, there was a significant difference between strangers and friends on emotional improvement, $t(266) = 2.59, p < .01, r^2 = .02$, cognitive reappraisal, $t(267) = 3.47, p < .001, r^2 = .04$, and perceived understanding, $t(262) = 3.52, p < .001, r^2 = .04$. In other words, friends reported feeling better, thinking differently, and feeling more understood after a supportive conversation than did strangers, irrespective of any of the other independent variables.

Moreover, dyad type was a consistent predictor of outcomes contributing to emotional improvement, cognitive reappraisal, and perceived understanding. As seen in Table 3.4, friends came away from their conversation with increased EI, CR, and PU than did strangers. Results also showed no significant improvement in model fit after including the two-way and three-way interactions.

Table 3.4: Descriptive Statistics for all Outcome Variables by Relationship Status

	Strangers		Friends	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
Emotional Improvement	4.97	1.32	5.37	1.19
Cognitive Reappraisal	4.29	1.63	4.94	1.42
Perceived Understanding	5.15	1.17	5.65	1.08

Presented next are 3.5, 3.6, and 3.7 showing results from hierarchical regression techniques for H3, H4, and RQ1. H3 predicted that LSM is a positive predictor of outcomes, see Tables 3.2-3.5 and 3.7. H4 predicted that LSM values would be higher for friends than strangers, seen in Table 3.3. RQ1 posited that LLR would potentially behave the same way as LSM on emotional improvement, cognitive reappraisal, perceived understanding, and vary as a function of relationship status, see Tables 3.2-3.5 and 3.7.

Table 3.5: Hierarchical Regression Analyses Predicting Emotional Improvement from Dyad Type, Coordination Variables, and Interaction Terms

	Emotional Improvement	
	ΔR^2	β
Step 1	.03*	
Dyad Type		.16*
Step 2	.01	
Positive Emotion Words		.09
Step 3: Language Variables	.02	
LSM		.13*
LLR		-.03
Step 4: Two Way Interaction	.02	
Dyad x PEW		.09
Dyad x LLR		.15
Dyad x LSM		-.01
PEW x LLR		-1.46
PEW x LSM		-.81
LLR x LSM		.63
Step 5: Three Way Interaction	.04	
Dyad x PEW x LLR		.19
Dyad x PEW x LSM		-1.9
Dyad x LLR x LSM		1.44
PEW x LSM x LLR		1.57
Step 6: Four Way Interaction	.00	
Dyad x PEW x LSM x LLR		-.16
Total R^2	.11*	
N	269	

Note. * $p < .05$, *** $p < .001$

Table 3.6: Hierarchical Regression Analyses Predicting Cognitive Reappraisal from Dyad Type, Coordination Variables, and Interaction Terms

	Cognitive Reappraisal	
	ΔR^2	β
Step 1	.04***	
Dyad Type		.21***
Step 2	.01	
Positive Emotion Words		.09
Step 3: Language Variables	.04*	
LSM		.19*
LLR		.06
Step 4: Two Way Interaction	.01	
Dyad x PEW		-.02
Dyad x LLR		.15
Dyad x LSM		.14
PEW x LLR		-.00
PEW x LSM		-.04
LLR x LSM		.09
Step 5: Three Way Interaction	.01	
Dyad x PEW x LLR		-.14
Dyad x PEW x LSM		.10
Dyad x LLR x LSM		.11
PEW x LSM x LLR		.06
Step 6: Four Way Interaction	.01	
Dyad x PEW x LSM x LLR		-.34
Total R^2	.06*	
N	268	

Note. ⁺ $p < .10$, * $p < .05$, *** $p < .001$

Table 3.7: Hierarchical Regression Analyses Predicting Perceived Understanding from Dyad Type, Coordination Variables, and Interaction Terms

	Perceived Understanding	
	ΔR^2	β
Step 1	.05***	
Dyad Type		.21***
Step 2	.00	
Positive Emotion Words		-.04
Step 3: Language Variables	.01	
LSM		.06
LLR		.01
Step 4: Two Way Interaction	.02	
Dyad x PEW		-.29
Dyad x LLR		.17
Dyad x LSM		.19
PEW x LLR		-.14
PEW x LSM		.03
LLR x LSM		.02
Step 5: Three Way Interaction	.03	
Dyad x W x LLR		-.03
Dyad x PEW x LSM		.11
Dyad x LLR x LSM		.54
PEW x LSM x LLR		-.04
Step 6: Four Way Interaction	.00	
Dyad x PEW x LSM x LLR		.25
Total R^2	.06*	
N	263	

Note. * $p < .05$, *** $p < .001$

Discussion

The purpose of this study was to explore how dyadic linguistic coordination influences how individuals feel better, think differently, and feel (more or less) understood after disclosing a stressful event. The study of supportive communication and the analysis of language trends help us explain the conversational dynamics between individuals. This study adds to the literature by documenting the interactional and linguistic features that can contribute to effective support between individuals.

Drawing from previous literature, I reasoned that linguistic coordination would aid in the production of positive outcomes after a supportive conversation. As a summary, I predicted that, first, positive emotion words would predict outcomes after a conversation, and, second, (after controlling for PEW use by disclosers) that how speakers coordinate language would be indicative of emotional improvement, cognitive reappraisal, and perceived understanding. Results indicated that although all predictive models were significant, LSM was the lone predictor only of emotional improvement and cognitive reappraisal. The only other consistent significant predictor was dyad type, which predicted every supportive outcome.

I hypothesized that positive emotion word use by a discloser would be a positive predictor of emotional improvement and cognitive reappraisal after a supportive conversation (H1). Results showed that PEW did not predict these two outcomes. Positive emotion words did not contribute significantly to the prediction of emotional improvement and cognitive reappraisal (Tables 3.5 and 3.6). In addition, I did not find a significant difference between the frequency of positive emotion words between strangers and friends (Table 3.3), leading to the conclusion that each group used roughly the same amount of PEWs, and that these types of words are beneficial to use in supportive conversations regardless of relationship status.

Previous research has identified certain classes of words that stressed individual's use when talking about problems, and has shown that positive emotion words have beneficial effects on how individuals process and understand stressful events (Pennebaker & Francis, 1996). These results were not replicated in this study. Pennebaker, Mehl, and Niederhoffer (2003) tested two models regarding affect words. Their first model, the differential emotion model, predicted that the more negative emotion words and the fewer positive emotion words used would predict improvement. The second model, the summed emotions model, predicted that the frequency of positive emotion words would predict positive outcomes. Future research could apply the differential emotion model to data from conversations used in this study, including negative emotion words and the ratio between the two affect word categories in analysis of supportive conversations.

Pennebaker et al. (2003) and Jones and Wirtz (2006) found evidence for the summed emotions model. Relying on spoken interviews on the subject of a partner dying over an undisclosed amount of time, Pennebaker et al. (2003) found that PEW from a discloser was $M=2.26$, $SD=.49$; meanwhile Jones and Wirtz (2006) found over the course of a 5-minute conversation talking about highly distressing events, disclosers produced $M=10.01$, SD not reported. In this current study, friends ($M=4.99$, $SD=1.92$) and strangers ($M=4.56$, $SD=2.03$) produced positive emotion words agreeing with the mid-range results of these two studies. Both studies did report negative emotion words and were able to analyze the effect of those words. It is possible that the current study did not reproduce these results because the events selected were those ranked as the lowest emotionally rated event by the discloser. The RAs were instructed to select the least distressing event from the two events a discloser identified. The Pennebaker study used as their conversation focus an extremely emotional topic where the presence of

positive emotion words would be very beneficial to coping, whereas, in a less distressing event as were the topics used in this study, positive emotion words may not have the same influence.

There were no significant two-way and three-way interactions. I was, however, particularly interested in the relationship between LLR and LSM. I hypothesized that the relationship between LLR and LSM would be positive and linear but not larger than moderate in magnitude (H2), however this hypothesis was not supported. LSM and LLR were not correlated ($r = .05$, $p = .45$), leading me to believe that these two measures represent two distinct variables. This result is consistent with the conceptualization of matching vs. repetition. LLR and LSM calculate coordination in two distinctly different ways (Table 3.2); LLR is a semantic, immediate, and exact form of coordination, whereas, LSM is a semantic, displaced, and non-exact form. Each measure captures particular, different features of a conversation, which is confirmed by the fact that these two measures are not correlated with one another.

LSM was a significant predictor for emotional improvement and cognitive reappraisal, which supports H3. LSM was able to aid in the process of feeling better and thinking differently about a situation. Along with the consistent lack of predictive power for the other language variables, this result suggests that the more frequently semantic matching occurs during the entire course of a conversation, the more the discloser is able to benefit, although the size of these effects was small in magnitude. In general, the matching of language style seemed to aid in emotional improvement and changed thinking about a situation, suggesting that supportive listeners may be able to show involvement in the narration of the story. When we think about the nature of LSM, the matching of function words between speakers, we see that LSM has a pragmatic function in supportive communication. Function words are words that have little meaning outside of the context in which they are used. Words like “it”, “that”, “his”, “this”, and

“her” are all deictics, which need some concrete noun to use as a reference. Function words theoretically help keep track of the mutual knowledge shared between speakers so that each person understands what the other is referencing.

In the context of the matching of function words predicting positive supportive outcomes, mutual knowledge seems an important factor in being a listener. If a listener starts to use deictic function words, this could show that the listener is involved and paying attention by being able to explicitly reference the specifics of a story. This baseline of understanding can then allow for more sophisticated cognitive processes, such as cognitive reappraisal. If a listener can first understand a story, the listener can then start to challenge the narrative and present alternative explanations or questions to a speaker; the conclusions from the challenged narrative might, in turn, help the discloser cope appropriately because it presents the story in a new light – that is, it helps to form a reappraisal of the event. LSM does help stressed disclosers think through events and start to feel better. LLR and PEW, on the other hand, were not beneficial to disclosers.

I predicted that LSM varies as a function of relationship status such that friends are more likely to exhibit higher levels of LSM than strangers; strangers and friends were not expected to differ with respect to LLR (H4). This hypothesis was not supported. Rather, results show the opposite: friends and strangers differed with respect to LLR scores, $t(259) = 2.24, p < .05, r^2 = .02$. In regards to LSM, there was no difference between groups. LSM values are nearly identical (in terms of central tendency and variability) in strangers and friends. This finding is surprising given claims made by Ireland and colleagues (Ireland & Pennebaker, 2010; Ireland et al., 2011) that LSM signals relational intimacy, stability, and involvement. Previous research has found that LSM has an inverse relationship with conversational involvement. Babcock, Ta, and Ickes (2014) reported that LSM was highest in conversations in which individuals were

disinclined to interact with each other. In addition, Babcock et al. (2014) suggested that LSM might actually be higher in conversations when individuals express higher emotional states; when people are expressing intense emotions, their partners may automatically match their language. These findings present an interesting inconsistency with the underlying assumptions of LSM.

Our findings are inconsistent with the original interpretation of LSM, but consistent with our speculation with respect to LLR. Within a supportive context more emotions are being shared because of the task at hand, thus warranting the influence of emotional content rather than relationship history as a predictor of LSM. Of course, in our data people did not match function words very much at all. On the other hand, LLR did vary in terms of relationship history. Friends tended to repeat each other slightly more than strangers. Exact repetition appears more often in conversations between friends, suggesting LLR may be an indication of relational closeness or involvement. Previous research on repetition suggests that repetition serves a variety of functions within a conversation, namely to generate rapport (Chartrand and Bargh, 1999) and as a way to create mutual knowledge (Svennevig, 2004; Cook, 2000). LLR may serve as a way to showcase mutual understanding between conversationalists, thus portraying a form of intimacy. We found that LLR varies as a function of relationship status, perhaps through the mechanism of shared understanding or intimacy; therefore the finding that LLR is correlated with but does not predict perceived understanding can provide some evidence of its functionality.

Being a friend was one of the strongest predictors of supportive outcomes. A discloser who was talking with a friend typically reported more emotional improvement, greater cognitive reappraisal, and increased perceived understanding. Friends already have a style of speaking to one another, and they likely already have some shared background information (Planalp and

Garvin-Doxas, 1994). In this study, we tried to control the amount of knowledge shared by the dyad; friends were supposed to disclose a stressful event that the listener did not know about. By instructing the friends to engage in a conversation about a problem that was new to the listener, friends and strangers should both have had a similar level of knowledge about the problem. Although the initial knowledge about the problem was the same, friends do have previous knowledge about each other in general. Friends have some expectation about how the other communicates, and what the other person has experienced; friends have also likely relied on each other for support previously. Friends might feel comfortable coming to each other for support and engaging in troubles talk. Strangers might feel uncomfortable telling a painful story to a new person and expecting that person to provide support. Friends do not need to establish a way of talking to each other, but strangers need to do extra relational work in a new conversation, which could influence the goal of being ideally supportive.

Results showing a main effect for dyad type are in line with previous literature indicating that conversational satisfaction varies as a function of relationship status. Hecht (1984) showed that friends, compared to strangers, find unbalanced conversations to be satisfying. This is particularly relevant for the supportive context. More specifically, while acquaintances in the Hecht study rated conversations as more satisfying when there were common bonds, shared speaking turns, and a similar amount of control, satisfaction for friends centered on one person disclosing personal information while the other listened and responded to that information without necessarily having to reciprocate. Friends are able to allow a speaker to have the floor during a conversation, whereas strangers feel the need to be involved and to contribute to a conversation. In regards to language coordination, the LSM and LLR results from this current study appear to verify and support the claims made by the Hecht study.

RQ1 explored the nature of LLR such that LLR would function in the same way as LSM in regards to emotional improvement, cognitive reappraisal, and perceived understanding. LLR alone did not predict any supportive outcome. Although LLR was significantly correlated with perceived understanding, once LLR was added to each model with other predictors, no significant results were produced. LLR is conceptualized as a measure of semantic, immediate, and exact linguistic coordination and perhaps these boundaries might not be the best or most accurate way to capture repetition and its functionality. Previous research on repetition and empathy measured repetition in different ways. The “Echo Effect” coined by Kulesza et al. (2015) used three different repetition conditions to show how coordination is a tool for prosocial tendencies. The first condition was labeled “copy,” where the listener imitated the speaker and word order was held constant. A listener produced the same sentence as a speaker, using the same words in the same order. The second condition was labeled “paraphrase,” where the listener changed the word order but produced the same words. The last condition was labeled “dialogue,” where the listener produced the same amount of words as the speaker and responded with a pre-tested statement. The results of this experiment showed that imitating individual words (the paraphrase condition), rather than imitating syntax (copy condition) or just engaging in a dialogue (dialogue condition), elicited prosocial behaviors in the speaker (rather than the person doing the mimicking). These results suggest that after each utterance, a listener must repeat back the same individual words as a speaker (but not the syntax), which then makes the speaker more inclined to provide help (in this case donate more money). So although this study might show the benefit of immediate and exact repetition, it actually does not provide theoretical evidence for supportive communication or a listener portraying empathy through repetition. Instead of explaining the functionality of repetition in conversation (perhaps showing empathy or

understanding), this study explains the consequences of repetition. In Kulesza et al. (2015), only one person is responsible for the repetition and the repeater is trying to make the speaker do something for him or her. Conclusions from this study may thus be inappropriate to apply to the different genre of supportive communication. In troubles talk, a distressed person is trying to disclose a problem (which has individual beneficial outcomes), a listener is trying to provide “good” support, and both people are engaged in a long conversation. In theory, LLR would capture both the copy and paraphrase condition, but as shown in the current study, speakers had to talk to each other for a longer period of time, not just produce a one-time supportive message after a disclosure. This current study shows opposing results from those of Kulesza et al. (2015), at least regarding the use of repetition. Instead of immediate forms (copy and paraphrase conditions) of repetition influencing prosocial behavior (i.e., helping another person), I found that more immediate forms (LLR) do not influence understanding, and that displaced forms of repetition (LSM) influence support. Perhaps different types of repetition are more (or less) useful in specific contexts and interactions.

There might be more effective ways to capture LLR, thus accounting for null results. For instance, transcripts could be split into five segments to capture the overall repetition at various times throughout the conversation. By analyzing the variation in repetition over time, we could see when repetition occurs (i.e., at the beginning of a conversation vs. the end). Also, segmenting conversations could capture repetitions that are not immediate.

Limitations

This study extends work on supportive communication in important ways, although there are limitations to my findings. First, these conversations were conducted in a lab setting. Participants were assigned particular roles in this space (either as a discloser or a listener), and

each conversation was only allowed to proceed for five minutes. This controlled space could constrict the naturalness of a conversation in that participants might alter conversational habits according to the time limitations. At the same time, the laboratory setting is a standard methodological tool for the study of social support and allows us to compare our results with past work. Second, the focus of our variables was on word frequency, which occurs out of conversational context. Since LIWC only maps the presence and frequency of particular words, this method ignores how those words are actually being used and what relational and identity messages are being communicated when particular forms of language are utilized. Without understanding the situated meaning of a message, certain words might be functioning differently in different contexts. Third, our data comes from college students, and thus most of the problems reported were primarily academic and other, similar everyday stressors perhaps unique to this population. The population and nature of the stressors may not be generalizable to larger problems or to relational problems. Indeed, work on supportive communication often restricts conversations to daily hassles that are not related to the relationship (e.g., Priem, Solomon, & Steuber, 2009). Work on relational problems is generally published under the auspices of conflict, begging the question of the ways that these forms of talk (as well as other forms) represent similar and/or distinct modes of talk. Finally, we used computerized textual analysis software to analyze our data, which are subject to programming differences and researcher subjectivity in variable selection. While this type of analysis presents an exciting development for handling complex discourse variables, we must take into account how these programs analyze language, how the algorithm is calculated, and whether they are measuring theoretically important variables in an empirically sound way. Programs such as these are providing new opportunities for analyzing research on language in interpersonal communication, providing

advanced methodology for handling large data sets. We need appropriate and sophisticated research to refine the applicability and construct validity that different computer programs offer. This chapter offers a critical look at these programs while providing an example of their potential function and role within interpersonal communication.

Conclusion

In general, this study contributes to our understanding of how the process of supportive conversation works. In particular, this study examines how certain types of words and the ways in which speakers coordinate language use influence supportive outcomes. Through the analysis of the interactional behaviors that occur during supportive talk, this study was able to investigate how people come to feel better, think differently, and understand each other. Future research could investigate how LSM and LLR unfold throughout a conversation so that we can see how the coordination process develops over time. Not only could researchers then look at coordination over time in just one conversation, they could analyze how levels of coordination vary among multiple conversations and thus over the course of entire relationship.

CHAPTER 4

STANCE AND ALIGNMENT IN TROUBLES TALK

Interpersonal coordination is a fundamental feature of interpersonal interaction. Interlocutors coordinate verbal behaviors, which influence individual and relational outcomes. As shown in Chapter 3, language style matching (LSM) is a predictor of emotional improvement and cognitive reappraisal within supportive communication, and relationship history is marked by the amount of linguistic repetition (LLR) in conversation. Indeed, the coordination of language in supportive communication influences coping and relationships. This chapter addresses how trained active listeners, strangers, and friends take stances and align their language to change (or preserve) the evaluation of a stressful event using Stance Analysis (Du Bois, 2007). In doing so, I intend to advance our linguistic understanding of supportive communication. This chapter uses novel discourse analytic techniques to help elucidate how support is enacted. Through this technique, we are able to see the nuances in how linguistic repetition occurs. Using Stance Analysis, this chapter looks at dialogue in action and provides a close look at how speakers coordinate language use throughout a conversation. This chapter explores the linguistic coordination model presented in Chapter 2 and will provide alternative methodologies to those used in Chapter 3.

Alignment and Support

Du Bois (2007) explains that “the stance act creates three kinds of stance consequences at once” (p. 163). When a subject takes a stance, that stancetaker “(1) evaluates an object, (2) positions a subject (usually the self), and (3) aligns with other subjects” (p.163). In other words, *“I evaluate something, and thereby position myself, and thereby align with you”* (p. 163). These three components make up the stance act. Through these three actions, speakers are able to create, maintain, and negotiate identity and relationships. While taking stances, speakers are

making choices about how they seek to appear and relate to another person; stances allow different ways of creating solidarity and indexing aspects of identity or genres of talk (Kiesling, 2009). Once a stance is produced in a conversation, an interlocutor has the opportunity to respond to the original speaker in a way that indicates how the interlocutor interpreted that stance; the speaker then has a choice to either go along with that interpretation or clarify the misunderstanding (Kiesling, 2009). This ongoing negotiation of interpretation, assigning meaning, and joint attention show that stance is a dynamic process that has individual and relational consequences.

Du Bois (2007) defined stance as “a public act by a social actor, achieved dialogically through overt communicative means, of simultaneously evaluating objects, positioning subjects (self and others), and aligning with other subjects, with respect to any salient dimension of the sociocultural field” (p. 163). Considered the “smallest unit of social action” (p. 173), stancetaking is one of the most important things people do with language. Stancetaking is a form of social action whereby speakers assign evaluations of objects, position themselves, and create alignment with other speakers. Alignment is a term used to describe “the act of calibrating the relationship between two stances, and by implication between two stancetakers” (Du Bois, 2007, p. 144). Alignment is a way to manage intersubjectivity and is a linguistic marker of agreement or understanding. Speakers become aligned when they take a similar stance in relationship to an object.

Stance helps elucidate how two people actively engage in negotiating meaning surrounding a stressful event and is useful for better understanding supportive conversations. In most cases, stressful events need to be talked about, discussed, or at least expressed. The current chapter addresses the relationship differences in how trained active listeners, strangers, and

friends not trained in any listening techniques take stances and align (or disalign) with each other to potentially challenge (or preserve) the emotional or interpretive evaluation of a stressful situation.

Stancetaking and alignment are both important in the genre of troubles talk because it is a situation where two people are negotiating a problem through talk or attempting to make sense of a stressful event (Goldsmith, 2004; Jefferson, 1980). Stancetaking is an important action for a discloser because they are explaining and evaluating a specific event or object. In troubles telling, a discloser usually tells a story or is trying to form a coherent narrative of a problematic event. Forming a narrative can actually be beneficial to a teller (Lepore and Smyth, 2002), and constructing a story allows a person to explain, organize, and integrate different perspectives and opinions about a situation in a coherent manner. People are able to make sense of events and emotions while forming and telling a story; in fact, having a painful event go unstructured can cause emotional distress and is one of the main reasons individuals report going into therapy (Mahoney, 1995). Indeed, most therapeutic techniques are aimed at disclosure as well as organizing and understanding life events that are stressful (Gergen & Gergen, 1988) into a coherent story.

Not only does storytelling have mental and physical health benefits, but stories contain rich information about the speaker's world and are primarily a social activity (Polanyi, 1981). Storytelling contains information about a past experience, a series of events, and evaluations, and is tied to the listener's knowledge of the storyworld (Polanyi, 1981, Labov, 1966). Stories also contain information about the amount of investment a speaker has while talking. Kiesling (2011) defined investment as the strength of a speaker's assertion or how strongly a speaker is invested in their assertion. Similar to epistemic stance, analyzing the investment of speaker while taking

a stance can help us understand the relative importance particular details have in a story. Thus, stories and investment can tell us the stances of a narrator, the relationship a narrator has with a listener, and the degree of common ground between a listener and teller.

Stance is an important action for a listener because she is commenting on, acknowledging, challenging, or co-forming the interpretation of the stressful event with a discloser. Because listeners are co-narrators of a story (Bavelas et al., 2000), they also are responsible for interpreting an event and influencing the structure of a telling. In fact, disclosers design their story based upon how much information a listener already knows (Polanyi, 1981; Planalp and Garvin-Doxas, 1994). If a listener's task in a troubles telling is to enact some form of support, messages will implicitly or explicitly position the listener in response to the stances a discloser will take.

Alignment is an important action for a dyad engaged in troubles talk because of the implications of intersubjectivity, perspective taking, interpersonal coordination, and affiliation. Alignment represents the similarity of stances between subjects, suggesting that this action requires some form of agreement and correctly identifying the emotions of another, known as empathic accuracy (Stinson & Ickes, 1992). Dyads in a supportive communication setting coordinate story structures (Cannava, Vickery, & Bodie, 2014), match each other's language style (Cannava & Bodie, 2013), and change language patterns based upon the types and frequencies of words used (Cannava, 2014). Through interaction, communicators are able to adapt to each other as well as create interaction patterns that help to define the nature of the interaction and the relationship (Cappella and Planalp, 1981). Speakers also use alignment to affiliate with one another. Stivers (2008) defines stances of affiliation as utterances which "displays support of and endorses the teller's conveyed stance toward the event(s) as being

described as, for example, funny, sad, horrible, or exciting” (p. 35-36, 2008). According to Stivers, a listener can cooperate during the storytelling, but does not necessarily want to affiliate with the content or message of the story.

When speakers align with each other, they are taking a similar stance and evaluation towards an object. In the case of talking about problematic events, the object is the event that is the source of stress (e.g., failing a test). If a stressed speaker takes a stance regarding the problematic event, which is subsequently repeated by a listener, the discloser might feel as if the original stance was understood and explicitly acknowledged and validated. The listener provides a similar emotional evaluation of a story and can show an understanding of a story by forming an opinion that aligns with that of the storyteller.

Alignment and Relationship Status

Alignment and stancetaking both help in the creation and maintenance of relationships. People in conversation take stances and align with each other to show friendship or solidarity, and this behavior can change based on the type of relationship speakers have with one another; dyads of differing relationship status could be expected to coordinate language in diverse ways. Specific to this current study, I analyze how friends, strangers, and active listeners align during troubles talk. I argue that friends should align with each other more often than do strangers because of the higher amount of mutual knowledge. Friends understand references, remember important points, and use mutual knowledge during conversation to make conversations coherent (Smith, 1982; Planalp & Garvin-Doxas, 1994; Clark, 1996). In fact, research has shown that naïve observers cite mutual knowledge as the most important feature in determining whether dyads are strangers or friends (Planalp & Benson, 1992). Statistically speaking, mutual knowledge is the most powerful variable in determining relational differences (over and above

self-disclosure and formality) (Planalp, 1993). Because friends have access to a wealth of knowledge, preferences, and attitudes about each other, they are able to potentially know how to co-align on certain subjects; they also perhaps better understand the relational consequences if they disalign.

Strangers and active listeners have different goals while attempting to create alignment than do friends. Active listeners and strangers both have the task of acquiring, using, and maintaining mutual knowledge in a conversation. Strangers typically rely on community membership (Clark & Marshall, 1981) or other types of talk that are tied to immediately obvious topics (e.g., at an airport and talking about the upcoming flight) (Maynard & Zimmerman, 1984). Strangers, especially people engaging an initial conversation, only have information that is readily available to them, which includes the stances that are being produced in the moment. While interacting, strangers have the task of taking a stance without any knowledge about how the other person might respond; this also influences how strangers align with each other. After a stance is taken, the responder must measure the immediate conversational consequences and choose whether or not to align with the speaker accordingly. Strangers can run the risk of appearing over accommodating (agreeing with everything the other says) in order to be polite or appearing unsympathetic (by not agreeing or confirming emotional disclosures). In general, strangers feel different pressures to align than friends, especially during an instance of providing support.

Although active listeners in this study are strangers, they operate according to similar conditions as strangers do, but ultimately they were trained and instructed to focus on the emotional content of the conversation. Research on enacted support, what people say and do when providing assistance to stressed others, has documented numerous specific behaviors that

reliably exhibit understanding (MacGeorge, Feng, & Burleson, 2011). An important moderator of received support's impact on coping and other important outcomes is the degree to which others demonstrate understanding (Maisel & Gable, 2009). Although understanding can be signaled through several specific verbal and nonverbal means, most recommendations for how to appear attentive and available involve listening (Goldsmith, 2004; Jones, 2011). To date, the leading framework for deriving practical advice for support providers comes from the work of Carl Rogers (1959) and is popularly referred to as active listening. Active listening is "an attempt to demonstrate unconditional acceptance and unbiased reflection ... of [another's] experience [which] ... requires that the listener try to understand the speaker's own understanding of an experience without the listener's own interpretive structures intruding on his or her understanding of the other person" (Weger, Castle, & Emmett, 2010, p. 35). Active listeners must be sensitive to the emotional stances disclosers take, show acknowledgment and understanding, and also provide alternative ways to interpret problematic events. The instances of alignment between active listeners and disclosers might appear different than ordinary talk between strangers and friends. The heightened emotional aspect that defines troubles talk will likely influence how people align while providing support to a distressed person.

Techniques used during supportive communication generally encourage "active listening," suggesting that speakers should demonstrate understanding, allow time for the expression of thoughts and feelings, show empathy, and be responsive (Rogers, 1959). These verbal behaviors have shown to positively influence improvement over and above nonverbal behaviors (Bodie et al., 2015). If a listener takes a stance acknowledging the emotion of a discloser, the discloser should experience some form of emotional improvement. However, alignment might actually be harmful to cognitive reappraisal in a supportive conversation.

Alignment is the shared understanding and similar stancetaking between individuals, which means that two speakers are thinking the along the same lines or have similar interpretations of an event. If a goal of troubles talk is to facilitate the distressed other in thinking about a situation differently, alignment between speakers might not be the best strategy to accomplish this goal. Potentially, alignment can make a discloser stagnate because a listener is not providing any new interpretation of a story. Work on co-rumination, for instance, suggests that when dyads engage together on stressful events, it actually has a negative impact on coping (Rose, 2002).

We know that the ways in which language is used between conversationalists in troubles talk influences perceptions and outcomes of feeling better and thinking about a situation differently (Cannava & Bodie, 2013). Research on ‘troubles talk’ dates to the early works of Jefferson (1980) on the study of supportive communication. Her research was instrumental in documenting how conversational partners navigate their language between talking about troubles and “business as usual.” Jefferson’s and related work, largely published by linguists, ultimately suggests an important endeavor for supportive communication scholars: to explore how a variety of linguistic and non-linguistic behaviors fluctuate over the course of talking about troubles. Although communication scholars often argue that sustained attention to supportive dialogue can improve our knowledge of how social support has its effects, very little work to date has explored actual instances of troubles talk, or how support is enacted within conversation (Goldsmith, 2004). This chapter aims to explore and explain how dyads in supportive conversations use alignment to express and accomplish support.

RQ1: During supportive communication, what are the similarities and differences in alignment, as outlined by the Johnstone Boundary Condition Model (presented in Chapter 2), among strangers, friends, and trained active listeners?

Methods

Participants

To analyze stancetaking and alignment, three transcripts were selected from the larger corpus of supportive conversations used in Chapter 3. Briefly (and further discussed in Chapter 3), The Listening Corpus was comprised of 119 dyads composed of unacquainted individuals, 122 dyads composed of individuals identifying as friends, and 29 dyads composed of a student discloser paired with a trained active listener. Trained active listeners were eight (7 females, 1 male) Master's students enrolled in the University's Counseling Education program. All were in the final year of the program and had received classroom training in active listening, including listening in a way that displays acceptance, congruence, and empathy by engaging in various nonverbal immediacy behaviors and by asking open questions, paraphrasing, and reflecting feelings. In addition, each active listener was employed at the time through the program's internship mechanism in a job that required them to engage in these behaviors on a daily basis. Prior to each conversation, active listeners were provided a reminder sheet that defined and gave examples of each active listening behavior they were instructed to display (see Appendix E). Active listeners were paid \$10 for each conversation they enacted.

Other participants were undergraduate students enrolled in Introductory Communication Studies courses at Louisiana State University A&M or enrolled in similar courses at the University of Minnesota, Twin Cities. Each participant received a small portion of course or extra credit (3%) in exchange for participation. The demographics for each group are shown in Figure 4.1.

	Stranger (n=119)		Friend (n=122)		Active Listener (n= 29)
	Listener	Discloser	Listener	Discloser	Discloser
Age	20.06 (1.24)	20.94 (4.98)	20.54 (4.01)	19.85 (3.32)	22.14 (6.93)
Sex	Male = 30.3%	Male = 31.1%	Male = 38.5%	Male = 29.5%	Male = 20.7%
	Female = 46.2%	Female = 58%	Female = 59.8%	Female = 70.5%	Female = 58.6%
	Missing= 23.5%	Missing= 10.9%	Missing= 1.6%	Missing= 0%	Missing= 20.7%
Ethnicity	Caucasian: 62.2%	Caucasian: 66.9%	Caucasian: 69.7%	Caucasian: 66.4%	Caucasian: 51.7%
	African	African	African	African	African
	American: 6.7%	American: 8.4%	American: 21.3%	American: 19.7%	American: 13.8%
	Asian: 4.2%	Asian: 2.5%	Asian: 4.9%	Asian: 4.9%	Asian: 3.4%
	Hispanic: .8%	Hispanic: 3.4%	Hispanic: 1.6%	Hispanic: 2.5%	Hispanic: 0%
	Other: 1.6%	Other: 3.3%	Other: 2.2%	Other: 2.4%	Other: 0%
	Missing: 24.4%	Missing: 18.5	Missing: 0%	Missing: 4.1%	Missing: 31%

Figure 4.1 Demographics of Relationship Type and Role

Procedure

Data for this study were collected in the LSU Matchbox Interaction Lab from 2011 to 2013. An announcement was posted on the Research Participation System and included instructions for those who signed up to bring a friend to the laboratory session. Upon arrival at the laboratory for their appointments, two research assistants (RAs) greeted both participants. After providing written consent, the RAs followed a script (see Appendix A). For the friend and stranger dyads, participants were first asked to draw slips of paper to randomly assign the conversational roles of “discloser” and “listener.” For the active listening condition, the listener always chose first and was instructed to always pull the listener slip. In all conditions, participants were then briefly separated to complete individual measures. Listeners in the stranger and friend dyad conditions filled out scales not germane to the present study (e.g., Big Five Inventory). In all conditions disclosers identified and rated two recent emotionally distressing events on a one (“*not at all emotionally distressing*”) to seven (“*very emotionally*

distressing”) scale. Research assistants were trained to select primarily academic events, or if no academic events were listed, the event with the lower rating.

Participants were reunited in the observation portion of the laboratory where one of the research assistants provided further instructions to both participants. Participants were given one minute to engage in small talk and then were signaled by a knock on the wall to engage in a 5-minute videotaped conversation about the selected event. After this conversation, participants were separated for a final time and completed various post-conversation measures, none of which are germane to the present study.

Transcription and Coding

Transcripts were compiled from the videotaped conversations for future analysis. Decisions were made to capture only linguistic content; vocalizations and other non-linguistic elements such as tone and pitch were not transcribed. Two trained graduate students created the transcripts to capture all linguistic content. One student first created the transcript, and the second student checked it for mistakes and discrepancies.

Selection of Transcripts. Transcripts were selected based on the following criteria: (1) listeners did not know about the discloser’s problem prior to the conversation, and (2) number of total words spoken by the listener were within one standard deviation of the mean (see Table 4.1). All three transcripts are found in full in Appendices F-H.

The first criterion is important because in the stranger and active listener condition, both participants had no previous knowledge about the person or the problem, so no previous knowledge could be assumed between the interlocutors. In an effort to create the same starting point, the participants in the friend condition were asked to disclose and discuss a problem that they had never discussed before. The friend transcripts were analyzed to find a conversation that

contained an explicit acknowledgment by the discloser or listener about the novelty of hearing about the problem.

The second criterion was put in place because there is high variability in how much the listener contributes linguistically to the supportive interaction. As seen in Table 4.1 some listeners say very little whereas other listeners take over the conversation to discuss their own problems. In order to make sure that listeners were contributing to the conversation, transcripts were selected by finding listeners who spoke no more than one standard deviation above or below the mean number of words ($M = 235.15$, $SD = 142.34$). A total of 77 transcripts fit those criteria. From the 77 transcripts, I then read the transcripts and selected one transcript from each relational category that appeared to be unique. In particular, I chose conversations wherein interlocutors appeared to discuss relatively more complicated problem and that contained an almost full story rather than a school-related anecdote.

Table 4.1 Descriptive Statistics for Listener Total Words by Relationship

	Stranger	Friend	Active Listener	Overall
Listener Words	250.23 (160.83)	236.43 (135.36)	178.76 (68.13)	235.15 (142.34)
Min/Max Words	5/766	17/682	28/327	5/766
# of Transcripts	35	36	6	77

Stance and Alignment. Using the parameters Du Bois (2007) outlined, I addressed the research questions related to stance and alignment. The stance triangle is composed of two subjects, an object, alignment, positioning, and evaluation (shown in Chapter 2). When a subject takes a stance, a stancetaker will evaluate an object, will position a subject (typically self), and will align with other subjects. These three components make up the stance act, which can also be analyzed through a diagraph. A diagraph is used to display inter-speaker parallels (Du Bois,

2014) and is comprised of the same elements of the stance triangle; a speaker, subject, position/evaluation, and object (see Figure 4.2) (Du Bois, 2007, p. 153).

Speaker	Stance Subject	Positioning/Evaluates	Stance Object
JAMIE	I	like	this song
SAM	I	don't like	those

Figure 4.2 Stance Diagram Example

Three transcripts were coded for all instances of stancetaking; each stance was identified by role (either discloser or listener). Next, all instances of alignment were coded for every transcript. Transcripts were then analyzed by myself and an expert, Dr. Mary Jill Brody, to confirm the correct identification of stances and alignment instances. Transcripts were discussed at length to determine reliability. There were no major disagreements or discrepancies in the coding of the transcripts.

Results

Table 4.2 shows a summary of how each dyad group used different aspects of alignment in supportive conversation. The original Johnstone Boundary Condition Model (JBCM) (see Table 2.1) conceptualizes alignment as having elements of all conditions except for semantic matching and other matching. Table 4.2 outlines how each dyad tended to use certain elements of alignment over other options. Also included in Table 4.2 is the number of topics of alignment. Specific topics were brought up throughout the conversation that resonated amongst the speakers. Bublitz (1988) defines a topic as “an independent, usually continuous category which focuses the participants' attention on the conversation, links their contributions and establishes a connection between them (and with them)” (p. 16). Interlocutors ultimately determined the number of topics identified in each conversation; once a stance was taken, a topic was formed. By identifying all stance and alignment instances, we were able to identify what topics were consistently focused on. Topics can provide the framework for speaker contributions and hold

attention over an extended period of time, therefore speakers can introduce, maintain, change, or close topics anytime during a conversation. The number of topics identified in each conversation is shown in Table 4.2.

Table 4.2 Dyads and Alignment using The Johnstone Boundary Condition Model

<u>Boundary Condition</u>	<u>Friends</u>	<u>Strangers</u>	<u>AL</u>
<u>Number of Topics</u>	5	6	3
<u>Formal/Semantic</u>	Semantic*	Semantic*	Semantic
<u>Immediate/Displaced</u>	Both	Immediate	Both
<u>Self/Other</u>	Other	Other	Other
<u>Exact/Non-exact</u>	Non-exact	Exact	Non-exact

Notes: AL= Active Listeners, * indicates Semantic coordination with Formal elements

To describe the conversations, I will give a brief summary of each conversation, explain that conversation using elements of Table 4.2, and give examples from each conversation.

Transcripts of the conversations can be found in Appendices F-H.

Friends

The conversation between friends, labeled here as “The Staring Weird Dude” (SWD), centered on the discloser seeing an ex-boyfriend at a party, thus making her uncomfortable. The discloser explained how awkward that situation was while explaining how awkward the ex-boyfriend is in general. Near the end of the conversation, the listener told her own story about seeing an ex-boyfriend and how weird that was for her.

Number of Topics. The SWD conversation contained five different topics, and each topic had instances of alignment. The topics included “Weird guy/dude”, “Uncomfortable”, “Glances/Stares”, “Not Communicating/Ignoring”, and “Physical Aspects”.

Formal/Semantic. The SWD conversation relied on semantic elements for alignment. This conversation differed from that of active listeners and more generally went beyond the boundaries of the JBCM; it contained semantic aspects of coordination but also contained formal aspects of coordination. Formal aspects include repetition of forms or patterns such as similar story structure, poetic form, or syntax. The discloser first told a long and complicated story that contained multiple stances on all five topics. Near the end of the conversation the listener told a story that contained four out of the five topics while evaluating and positioning herself in alignment with the discloser.³

103. R: yea, right after I broke up with my ex-boyfriend I would see
him at the gym and I would pretend he
104. R: didn't exist
105. L: yea
106. R: until I switched gyms because he would be like giving me like,
glares, I'm like oh my god
107. L: *that's awful*, I don't know, this guy he, he went to Hawaii
recently (SWD)

Line 103 shows the listener explaining that she also has an ex-boyfriend that she saw and that she would try to ignore (aligning on the topic of “Not Communicating/Ignoring”). In line 106, the listener states that she had to switch gyms because the ex-boyfriend would glare at her (aligning on the topic of “Glare/Stare”), which made her uncomfortable and annoyed, “I’m like oh my god”, (aligning on the topic of “Uncomfortable”). After the listener told her story, the discloser aligned with her while providing sympathy in line 107.

This excerpt from The SWD shows elements of formal and semantic repetition. In terms of semantic repetition, the listener is using very similar language as the discloser and aligning with how the discloser first explained her own situation. For example, in line 41 the discloser

³ Transcription Notes: R= Listener; L= Discloser; bold= object; underline= alignment; italicized= stance

explained how the ex-boyfriend would glare at her (compare this to line 106 from the listener).

41: L: I tried to but he kept like giving me **glares** from across the room
 106: R: until I switched gyms because he would be like giving me like, **glares**, I'm like oh my god (SWD)

Again, this semantic repetition happens in line 102 from the discloser and line 103/104 from the listener (The stance diagram is shown in Figure 4.3).

102: L: **I will try to pretend that I don't know you**, can we can we do that?
 103/104: R: yea, right after I broke up with my ex-boyfriend I would see him at the gym and I would **pretend he didn't exist**. (SWD)

Speaker	Stance Subject	Positioning/Evaluates	Stance Object
L	I	will try to pretend that I don't know	you
R	I	would pretend. . . didn't exist	{he}

Figure 4.3 Stance Diagram Friends (SWD, Lines 102-104)

These two examples show how friends use semantic repetition in stance taking to ultimately create alignment.

In terms of formal repetition, the story structure in lines 103-107 follow the same structure as the initial disclosure. Not only does the listener rely on the same story structure, the story contains the same stances and evaluations of the discloser.

Immediate/Displaced. In the SWD conversation, friends relied on both immediate and displaced forms of repetition. Friends aligned and repeated each other immediately, but they also were able to produce stances from the beginning of the conversation and use them throughout the rest of the conversation.

An example of immediate repetition and alignment is found in lines 92-100.

92. L: but when it comes to like matters of the heart, it's always just yucky and messy
 93. R: isn't it?
 94. L: and I don't, I don't, I never know how to handle those kinds of things

95. R: no, I know exactly what you mean, to see the ex, to see any
guy that you've kind of had a thing with,
96. R: where you've just decided not to like, pursue
97. L: I know! Anything! Even if you've like made out with him for
like once! *And you see him and you're*
98. L: *like oh god! I'm sorry! Ew! It's just like*
99. R: exactly! Exactly!
100. L: kind of rough. (SWD)

Lines 93, 95, 97, and 99 are all statements of alignment expressed in immediately adjacent utterances. The listener produced all of those statements, except line 97. The discloser is starting to explain her position about breaking up and how difficult it can be, and the listener is trying to align with her by adding in statements of agreement, confirmation, and understanding. The listener is relying on immediate repetition to show understanding and to align with the discloser. But this is not the only way the alignment occurs. Alignment also happens throughout the conversation while using displaced forms of repetition.

23. L: Because I just like **stopped talking** to him
47. L: it's such an awkward conversation to have, it's like hey
sorry it didn't work out **and I stopped talking to you** entirely
58. R: it's just **avoid and avoid the situations**
101. R: it's just like oh um I I, who are you? No, **I don't know who
you are but I will pretend**
113. L: I know, so **I don't have to like run into him ever again** in my
entire life (SWD)

These stances are considered as displaced throughout the conversation because there is intervening talk. Both the listener and the discloser are taking similar stances and showing alignment consistently while talking. There were 113 total lines in the SWD conversation, and both speakers talked about ignoring or avoiding difficult situations almost immediately. The conversation also ended on this topic.

Exact/Non-exact. The friends in this conversation tended to rely more on non-exact forms of repetition than exact forms. Instead of saying the exact same words back to each other, friends were able to align by using similar words instead of more explicit forms of agreement.

73. L: he had just graduated and so he was still hanging out on campus
74. R: oh! So cool!
75. L: but I don't know he was just a weird dude (SWD)

In line 74, the listener used irony in a non-exact form to show understanding and align with the discloser. By saying, “oh! So cool!”, the listener was trying to agree with the discloser about the lameness of her ex-boyfriend. The listener does not have to state an explicit stance of, “Yes, I agree that he sounds really dumb”; instead, the listener is able to produce the same effect by stating her agreement in her own words.

Summary. In general, the friends in the SWD conversation tended to focus on five topics of conversation, which allowed these speakers to align formally and semantically, immediately and in a displaced manner, and in a non-exact fashion. Friends were able to take stances and align with each other using a variety of tactics and techniques.

Strangers

In the conversation between strangers, labeled “The Not Yet Valentine” (NYV), the discloser talked about how her boyfriend forgot about Valentine’s Day. This conversation contains six different topics, both semantic and formal elements, and relies on immediate and exact forms of repetition.

Number of topics. The NYV conversation contains the most topics among the three conversations considered here. With a total of 6 different topics of alignment, this stranger dyad showed agreement at multiple points of the conversation and covered a wide range of material. These topics included “Valentine’s Day”, “Texting”, “Strategic Cell Phone Placement”, “Remembering/Forgetting”, “Dating”, and “Friends”.

Formal/Semantic. This conversation contains both formal and semantic elements.

Semantically, these speakers were able to show alignment by using similar word choice. The formal elements of this conversation rely on the repetition of syntactic structures.

A semantic example shows the discloser telling a story, the listener interpreting and sharing her opinion of the boyfriend (Line 76), the discloser then agreeing with the listener (Line 77), and lastly, the listener agreeing with the statement of agreement from the discloser (Line 78). This example (and the stance diagram shown in Figure 4.4) shows that the listener was able to provide an interpretation to the story with which the discloser agreed. The listener could then continue to explain her opinion.

75. L: was like an hour long massage. So, he was surprised.
 76. R: LOL. I bet he felt bad.
 77. L: Uhmm... hopefully, he learned his lesson.
 78. R: I'm sure he did. I'm sure he didn't because- you remember that he didn't... and, you (NYV)

Speaker	Stance Subject	Positioning/Evaluates	Stance Object
L		Hopefully learned	He (his lesson)
R	I'm	Sure. . . did	{He}

Figure 4.4 Stance Diagram Strangers (NYV Lines 77-78)

In Lines 49-58, these strangers also used formal repetition. At this point in the conversation, both speakers are pretending to be the ignorant boyfriend by speaking as him (the listener in Line 49, the discloser in Line 54). Both listener and discloser are also questioning the logic of the boyfriend while aligning with one another's interpretation. Formal repetition is found when both speakers take turns pretending to be each other and the boyfriend. This behavior is termed *vox*, voice of another (Du Bois et al., 1992).

49. L: And he's like, "You know I have **something planned**, right? It's just, **not yet**." And I was like,
 50. L: "Oh, ahuh." And since then.
 51. R: How do you have **something planned**?
 52. L: Since then, I haven't heard of any of **these plans** or anything.
 53. R&L: LOL

54. R: How do you have **something planned**... and then, just be like, 'I have **something planned**, just
55. R: **not yet**?
56. L: I don't know
57. R: That's kind like a contradictory statement, you know? (L: mhm) He's like, '**I have something**
58. R: **planned**, but **not yet**.' Ahh man! (NYV)

The discloser creates a scenario in which she and her boyfriend were interacting. She first voices her boyfriend and pretends to answer him, "And I was like, "Oh, ahuh." The listener then pretends to be the discloser while asking her boyfriend, "R: How do you have something planned?" The listener then repeats her own question from Line 51 in Line 54 pretending to be the boyfriend in Lines 54-55 and Lines 57-58. Both the semantic and formal elements are shown by similar language use and by both speakers pretending to speak as the boyfriend. This last example also includes elements of immediate and exact repetition. Immediate and exact elements are shown by the phrase "something planned. It's just, not yet", which appeared multiple times and in immediate turns.

Immediate/Displaced & Exact/Non-exact. I am selecting to combine these two categories because most of the examples from this conversation show both immediate and exact repetition appearing together. Strangers in this conversation repeated each other multiple times, and in many instances, this repetition had the same syntax and lexical choice as the previous utterance. These strangers were able to align instantly and precisely. The repetition of these phrases did not appear throughout the conversation, the repetition was not displaced or non-exact; repetition between these strangers acted as multiple small instances of alignment. This behavior helped contribute to the high number of topics that were discussed and aligned on between the strangers.

Lines 14-17 show immediate and exact repetition:

14. R: So he forgot...

15. L: **Completely!**
16. R: **Completely.**
17. L: Not even a card, not even a homemade card. (NYV)

And again, in Lines 24-27:

24. L: so we definitely didn't do anything then. But, and he's like,
"Are you mad?" I was like,
25. L: "Nope." But I purposely, like texted my friend about it, and
left it on my cell phone...
26. R: **So he could see it.**
27. L: **So he could see it.** (NYV)

And once more, Lines 98-99:

98. L: **Oh, he mailed me a card,** like... he's from Virginia.
99. R: **Oh, so he mailed you a card.** And what did your boyfriend say
about that? (NYV)

Summary. In general, these strangers relied on numerous topics, used both formal and semantic repetition, and aligned immediately, exactly, and often. It seems as if strangers need to showcase alignment through the conversation on numerous topics, perhaps because it is too awkward to disagree or provide an alternative opinion. These strangers were able to both find humor and self-righteousness during the interpretation and evaluation of the story. The listener provided support by showing empathy, mostly by displaying her surprise and expressing the same anger and sadness articulated originally by the discloser.

Active Listeners

In the active listener conversation, "Displaced Sisters" (DS), the discloser talks about the move of her sister. This discloser is upset about her sister moving away and the effect that the move will have on their relationship. The active listener attempts to provide support to the discloser using multiple tactics.

Number of topics. In this active listening interaction, these speakers had a small range of topics over the course of their conversation, using only three main topics: "It's hard", "Giving

Support”, and “Temporary/Permanent”. Compared to the other groups, the conversation with this active listener was more focused, thorough, and detailed.

Formal/Semantic. This conversation relied on semantic elements of repetition. The discloser and listener produced similar language. There were no elements of formal repetition; the active listener mainly repeated the stance of the discloser while adding a modifier of “It sounds like”, “What you’re saying is”, or “I’ve heard you say before”. In Lines 5-16, the active listener repeated and aligned with the discloser two different times (Line 10 and Line 16). The active listener used semantic repetition in order to accomplish alignment.

- 5. L: her all the time. But we like, skype and umm... like, talk to each other on the phone every day.
- 6. L: So, **it's** still good, but **it's** hard to make trips up there to see her because it's like, five and a half
- 7. L: hours away.
- 8. R: Yeah.
- 9. L: But she comes back like every weekend and stuff, so... I mean, **it's** just...
- 10. R: **That** sounds like it's a new thing, but you're kind of getting used to **it**.
- 11. L: Oh yeah, I'm getting used to **it**. Because my whole family lives here, like all my cousins,
- 12. L: my fam- like everybody. So, it's just kind of like, someone leaving is *kind of hard* for us to-
- 13. L: everybody to get adjusted. And one of my cousins who used to live in Texas, but she moved
- 14. L: back here, so *it's like hard* for my sister to be away and... but, they're making it. **It's** just a big
- 15. L: change in her life and ours, I guess.
- 16. R: I was going to say, yeah **it** sounds like a big change in your life too. (DS)

Immediate/Displaced. These speakers use both immediate and displaced repetition in their conversation. One reason why this conversation has a limited number of topics is because both speakers speak about a certain topic at length and return to this topic at multiple points of the conversation. An example of immediate repetition is found in Line 70-71. The active listener was repeating back his acknowledgment of hearing this stance from the discloser before.

- 70. L: Oh yes. **It's** not going to be forever.
- 71. R: Yeah. Like, I've heard you say **that** a few times. Like, **"It's** not going to be forever." (DS)

This topic of “Temporary/Permanent” actually appears multiple times throughout the conversation, starting at Line 10 and ending at Line 71 (out of a total of 75 Lines in the conversation. Here are all of the occurrences and forms of this topic:

- 10. R: That sounds like it's a new thing, but you're kind of **getting used to it**.
- 11. L: Oh yeah, **I'm getting used to it**.
- 16. R: I was going to say, yeah it sounds like a **big change** in your life too.
- 44. L: So, **it's just a trans- a big transition**, I would say.... to figure things out.
- 64. R: you're talking to her and keeping up. It's just kind of **getting used to that...**
- 65. L: Umhmm. It's just a- because I just went away to college, **so it's kind of like a new thing** for (DS)

We can see that the discloser is responsible for four of the mentions, and the listener is responsible for the other four (including Lines 70-71). The listener and the discloser are both equally responsible for bringing up, aligning on, and sustaining this particular topic. This balance and involvement in the process of alignment appears throughout the conversation and is a characteristic of all three topics.

Exact/Non-exact. In this conversation between an active listener and a discloser, these speakers use non-exact forms of repetition. The active listener paraphrased, selected words of a similar emotional valence, or repeated the discloser while adding those modification lines of “in your mind” or “you sound” to show that the listener may or may not have a similar evaluation of an event but will take the perspective of the discloser. These behaviors all contribute to non-exact forms of repetition. For example, the topic of “It’s Hard” came up multiple times throughout this conversation (examples are shown in the stance diagram in Figure 4.5).

- 4. L: that she's away I don't see her every day, and so... **it's just kinda, like hard** because I like to talk to
- 6. L: So, it's still good, **but it's hard** to make trips up there to see her because it's like, five and a half

12. L: fam- like everybody. So, **it's just kind of like**, someone leaving **is kind of hard** for us to-
14. L: back here, **so it's like hard** for my sister to be away and... but, they're making it. It's just a big
25. R: Well, **that's got to be tough**.
29. L: but **it's just kind of...** I dunno, **hard** to see her there. Especially, when she's struggling there too,
30. L: **it's hard** to like, give her happiness over the phone. LOL. And like, confidence, "Oh it'll be fine"
47. L: Yeah- yeah. **It's hard**. And so, but **it's always harder** on her than me.
59. R: **it's tough** on you.
60. R: You said that **it's all tough** on her, but you have the support, but it's gotta be- it sounds like
67. R: Well, **it sounds like a really distressing thing**, yeah. (DS)

Speaker	Stance Subject	Positioning/Evaluates	Stance Object
L		Just kinda hard	It's
R	you	tough on	It's

Figure 4.5 Stance Diagram Active Listeners (DS, Lines 4 & 59)

This evaluation is said eleven times and brought up almost every ten lines. This discloser never altered her stance; she always said, “it’s hard.” Conversely, the listener never actually said “it’s hard”, instead he used the synonyms of “tough” and “distressing.” The listener also used modifiers (e.g., really) while providing a non-exact semantic repetition. We also see the sharing behavior discussed earlier; the discloser is responsible for seven of the stances and the listener is responsible for four of the stances. The discloser engaged in a lot of self-repetition, and the listener is able to pick up on these repeating lines and align with the discloser.

Summary. In general, the conversation including an active listener is a focused conversation, only relying on three different topics, and using semantic and non-exact repetition in both an immediate and displaced manner. These speakers were able to align often on the same topic throughout the conversation while discussing the details and emotional impact of this stressful event.

Discussion

The purpose of this chapter was to explore how dyads align with each other during the disclosure of a stressful event. The study of supportive communication and alignment helps us better explain the conversational dynamics that occur in the attempt to provide support. This study adds to the literature by documenting conversational features that can contribute to effective support. Drawing from previous literature, I reasoned that listeners of differing relationships and training would align in similar and different ways. Whether with a stranger, a friend, or an active listener, each conversational pair shared some qualities but also had defining differences.

The conversation between friends covered five different topics while using formal and semantic repetition, non-exact repetition, and coordinating in both an immediate and a displaced manner. In other words, friends covered an average range of topics, compared to strangers and active listeners, and were able to use and return to those topics throughout the conversation. Friends used non-exact repetition by engaging in semantic repetition and elements of formal repetition (i.e., engaging in mutual storytelling). Mutual storytelling creates social cohesion, known as resonance (Du Bois, 2003). Most second stories or instances of mutual storytelling show resonance through the repeating of “lexico-syntactic, structural, semantic, and prosodic elements in corresponding positions” (Siromaa, 2015, p.526). The friend listener used resonating elements and alignment to provide empathy by telling a similar yet personal story, to co-narrate stories, and to share opinions. The friend is not neutral in this conversation. She has opinions and shares them, and for the most part those opinions do not deviate from those of the discloser. If anything, this listener shares personal beliefs and interpretations rather than just trying to remain neutral or objective.

The conversation between strangers exhibited the largest amount of topics; speakers aligned immediately and exactly, but also engaged in both formal and semantic repetition. Strangers had the highest number of topics compared to friends and active listeners, and strangers did not often return to previous topics; once a topic was closed, the speakers did not re-engage that topic. The number of topics might be related to the immediate and exact alignment. The listener in this conversation aligns with the discloser immediately and repeats exactly what the discloser just said. Because of the instantaneous alignment, the discloser doesn't need to return to previous topics for further evaluation, simply because the listener already showed agreement and comprehension. The listener in this conversation typically takes the role as a co-narrator, helping the story move along by expressing involvement by keeping track of and reacting to significant events. It appears that each instance of alignment is a moment when the discloser is telling the outcome of a sequence of events or the motivation behind her feeling or reacting a certain way. The listener is able to take the perspective of the discloser and understand her reactions, almost as if the listener is responsible for interpreting what the discloser was thinking. This behavior is especially prominent when the listener begins to speak as the discloser (NYV, Lines 49-58) while providing an argument as to why the discloser should feel that way.

Lastly, the conversation that included an active listener contained the fewest number of topics (only three) and used semantic and non-exact repetition in both an immediate and displaced manner. The active listener conversation was more focused and contained a great deal of emotional information. The discloser and the listener repeated variations of the same phrase over and over again, "it's hard," a phrase that contains an emotional evaluation rather than an event or other type of storytelling behavior. This conversation centered on emotional disclosures

and the acknowledgement of those emotions. The listener did align with the discloser, but only by way of quoting the discloser (DS, Line 67 “I have heard you say that a few times. Like, “It’s not going to be forever.”). The discloser didn’t tell a long coherent story; rather the discloser and listener both worked on understanding the emotional impact of the one stressful event.

Using the JBCM, these three conversations have structural features that are both similar and dissimilar. For example, friends and active listeners almost have the same JBCM profile, with the exception that friends use more formal repetition. Both relationship groups use semantic, non-exact repetition in an immediate as well as a displaced manner. Friends and active listeners can use non-exact repetition to align immediately and to align while returning to previous topics. The main difference between friends and active listeners is how invested, or the strength of an assertion (Kiesling, 2011), the listener is while taking a stance. Friends seem to be more invested in their stances because they take more personal stances and align more frequently with the discloser; a friend engages in the genre of troubles talk as an active co-participant. In comparison, active listeners do take stances, but that stance is typically modified to repeat or closely echo the discloser rather than forming a subjective opinion. Both groups align with each other but enact that alignment using different frames of reference and different degrees of investment. Active listeners show lower investment in their stances because their stances almost animate the discloser; the listener is reflecting back the speech of the discloser to show that they understand the other’s evaluation of an event. Rather than strictly aligning with discloser’s stance, an active listener aligns but makes sure not to be the one responsible for that interpretation. The lower investment from the active listener might actually be beneficial for coping because active listeners are re-presenting the stance back to the discloser to make the

discloser aware of what they just said. Active listeners are explicitly acknowledging and validating the discloser's stances.

Although friends show more investment than active listeners, we see that strangers and friends affiliate with the discloser in ways that the active listener does not. Stivers (2008) explains the difference between alignment and affiliation such that alignment involves being a cooperative speaker, whereas affiliation is demonstrated when a listener endorses the emotions of a story. Listeners can participate in a story but listeners do not always have to affiliate with the content of a story. Active listeners do a better job at not affiliating with the content or emotional tone of the story; active listeners put the responsibility of owning emotions on the discloser. Friend and stranger listeners do affiliate (and align) with the discloser and the discloser's story most of the time. If we look at the examples of alignment from strangers, the listener repeats immediately and exactly what the discloser says and mostly at times when the discloser is telling an event. The listener is aligning with the discloser to keep the story going and is reacting at certain points of the story to express involvement and agreement with the emotional reaction produced by the discloser. We see this in NYV, Lines 75-78, where the listener expresses that she hopes the forgetful boyfriend feels bad for forgetting.

75. L: was like an hour long massage. So, he was surprised.
76. R: LOL. I bet he felt bad.
77. L: Uhhh... hopefully, he learned his lesson.
78. R: I'm sure he did. I'm sure he didn't because- you remember that he didn't... and, you (NYV)

The listener contributes to the storytelling but also shows her affiliation with the discloser by criticizing the boyfriend.

The friends also engaged in similar behavior. The listener from the conversation between friends showed affiliation by telling her own story that included all the same problematic stances the discloser initially took. Basically, the listener is showing the discloser that she agrees with

everything she has said because the listener can produce her own story that has all those same elements. The friend listener showed investment, affiliation, and alignment. It appears that stranger, friends, and active listeners all attempt to provide support in different ways through alignment.

Active listeners are able to provide support by being involved in telling the story but are emotionally and relationally less invested in the conversation. Active listeners can align with the discloser by acknowledging emotions but not necessarily providing their own opinions or emotional reactions to the story being told. Active listeners can use synonyms to paraphrase what the discloser has said, but they ultimately remain neutral and less personally invested in the conversation.

Strangers and friends are able to align in a way that is affiliative and shows personal investment. Friends expressed personal and emotional involvement in the conversation by agreeing with the discloser's emotional reactions and providing similar stories. In fact, friends might try to show support in ways that center around their own subjective opinions almost to the point of identification, and ultimately reciprocation, with the discloser. Strangers appear to align and affiliate with the discloser but not to the point of subjective identification. Rather, strangers show involvement by taking the perspective of the discloser, such that the listener is able to voice opinions as the discloser. The listeners are not providing a reciprocal or identical story, rather it is their task to show understanding of the discloser.

Active listeners may attempt to provide support by remaining involved yet personally distant, while friends run the risk of being too involved and too personally invested, and strangers appear to be involved in the story yet try to highly affiliate with the discloser. These behaviors show that the process of alignment functions in different ways and that people in

differing relationship statuses attempt to coordinate their actions by manipulating affiliation, investment, and agreement.

Friends and strangers might run the risk of preserving a discloser's negative emotions towards a stressful event by taking similar stances with the distressed other. Instead of trying to provide different interpretations of an event, a listener who is a friend or stranger might actually agree with the discloser and attempt to provide stories that confirm the feelings of the discloser. On the other hand, active listeners might be too focused on the emotional reactions of the discloser and not allow the discloser to have a chance to tell the whole story, or go off on tangents that might help the listener (and the discloser) explore the significant connections of why the event is upsetting. Active listeners might appear to value emotional information over other types of information.

Limitations

This study did contain some limitations which influences the generalizability of these results. First, this study only contained three transcripts. Only one transcript was used to represent each relational group and to make claims about the conversational structure of each group. In the future, more transcripts could be utilized to understand the intricacies of supportive talk. Second, each relational group did talk about three very different problems. Perhaps what would have been better would be to select transcripts that all had the same topic (e.g., a break up), therefore controlling the genre of talk and the topic of the conversation. Perhaps people talk about different topics in more simple or complicated ways or provide different types of details. And lastly, the analysis of alignment and stancetaking could be more nuanced. Instead of just identifying the content or repetitive nature of alignment, future research should analyze the structural features such as where both stancetaking and alignment occurs, and the type of content

alignment typically employs. Where the alignment first occurs would be indicative of the structure of supportive communication. Alignment might occur multiple times near the end of the conversation, or might not appear at all. By determining how often and where alignment occurs, we can discover the points of connection in conversation. We can also examine whether certain relationship types structure alignment differently. Perhaps active listeners align early and often, whereas friends align a few times near the end of a conversation. There might be stylistic differences in the frequency of stancetaking because of the particular relationship between the speakers. It would also be interesting to analyze the content on which dyads align--- do dyads engaged in troubles talk align more on negative emotions or positive emotions? Perhaps the content is also responsible for alignment between speakers; some content may be more appropriate to repeat than others. Also, by pairing the content with the location, future research could determine the structural aspects of alignment and explain the interactional dynamics of supportive communication.

Conclusion

This chapter contributes to our general understanding of how the process of support is enacted and how alignment is used to accomplish support. In particular, this study examined instances of alignment, using the JBCM, and explored how dyads of various relationships engage in troubles talk. Through stance analysis, this chapter was able to investigate how listeners and disclosers evaluated and interpreted objects or events in similar or different ways. Listeners of different relationships and training used alignment to show understanding, co-narrate stories, share opinions, provide coherence, and paraphrase stories. Listeners also used alignment to show investment and affiliation; active listeners remained distant and less invested, whereas strangers and friends showed more affiliation and investment.

People are able to use alignment to show understanding, solidarity, compassion, and criticism, demonstrating that support takes many forms dependent on the relationship between conversational participants.

CHAPTER 5 CONCLUSION

This chapter presents comprehensive findings from Chapters 3 and 4 in light of the model presented in Chapter 2. I also discuss the limitations of this dissertation; in particular, how certain coordination measures were operationalized and how to improve these conversational measures. Finally, I discuss directions for future research regarding linguistic coordination and social support.

Discussion of Results

With this dissertation, I sought to answer two general research questions (Chapter 1). The first asked: in what ways do individuals coordinate language use within supportive conversations? The second asked: what are the consequences of these forms of coordination? Given these two questions, in Chapter 2, I created and presented a model of repetition that was used to understand and conceptually organize each measure of linguistic coordination. The Johnstone Boundary Condition Model (JBCM) provided a unified way to discuss each linguistic measure that enabled me to see similarities, differences, and, as presented later in the discussion, how these measures can be used together. Both studies provided a detailed interpretation of how each coordination measure was used in conversations that feature talk about problems and the consequences of using those coordination techniques. The following section will first provide an overview of the results from Chapter 3 and 4 and will culminate with an integrated discussion that combines the results with the JBCM. Table 5.1 presents a summary of the research questions and hypotheses presented in Chapters 3 and 4 and that will be discussed throughout the remainder of this chapter.

Table 5.1: Summary Table of Hypotheses and Research Questions

<u>Hypothesis/Research Question</u>	<u>Level of Support</u>
H1 (Study 1): Positive emotion word use by a discloser is a positive predictor of emotional improvement, cognitive reappraisal, and perceived understanding after a supportive conversation.	Not Supported
H2 (Study 1): The relationship between LLR and LSM is positive and linear but not larger than moderate in magnitude.	Not Supported
H3 (Study 1): LSM is a positive predictor of emotional improvement, cognitive reappraisal, and perceived understanding reported after a supportive conversation.	Partially Supported
H4 (Study 1): LSM varies as a function of relationship status such that friends are more likely to exhibit higher levels of LSM than strangers.	Not Supported
RQ1 (Study 1): How does LLR work in supportive conversations on the following variables: (a) Emotional Improvement, (b) Cognitive Reappraisal, (c) Perceived Understanding, and (d) on relationship status.	Discussed
RQ1 (Study 2): During supportive communication, what are the similarities and differences in alignment, as outlined by the Johnstone Boundary Condition Model (presented in Chapter 2), among strangers, friends, and trained active listeners?	Discussed

Chapter 3 used two measures of linguistic repetition, Language Style Matching (LSM) and Local Lexical Repetition (LLR), and analyzed their functions within supportive communication. Chapter 3 analyzed a number of different factors – specifically, individual language choice, dyadic language choice, and the relation between LSM and LLR – to predict interpersonal supportive outcomes. In addition, I considered relationship history as a potential moderator of the effects of language outcomes. The results showed some support for each hypothesis.

I predicted that positive emotion word (PEW) use by a discloser would be a positive predictor of emotional improvement (EI), cognitive reappraisal (CR), and perceived

understanding (PU) after a supportive conversation (H1). This claim was not supported; positive emotion words did not predict any supportive outcome. Positive emotion words was the only individual language variable that was analyzed in this dissertation, and the null results deviated from previous research. Most research has found that PEW contributes to coping with stressful events and is a positive predictor of individual outcomes such as EI and CR (Pennebaker et al., 2003; Jones & Wirtz, 2006). Perhaps this study failed to produce similar results because the protocol selected events that were mildly, rather than acutely distressing. In the Pennebaker et al. (2003) study, for instance, subjects were talking about the death of a partner, where the presence of positive emotion words might have more of an impact regarding mental health and coping. Even so, using a similar protocol to Study 1, Jones and Wirtz (2006) found PEW use predicted both CR and EI. The effect sizes reported in their study were .13 and .18, respectively, suggesting that low power to detect small effects may be a second explanation for these null results.

My results showed that LLR and LSM were two distinct measures and were not correlated with one another (showing no support for H2). As a result, there is preliminary evidence in this study that these measures constitute distinct ways to conceptualize and measure linguistic coordination in conversation. In general, it seems to make the most sense to refer to LSM as a measure of matching and LLR as a measure of repetition. The degree to which each measure correlates with other measures of matching and repetition is a matter for future research.

LSM, but not LLR, explained a significant amount of variance in ratings of emotional improvement and cognitive reappraisal but not perceived understanding (partially supporting H3), whereas LLR failed to have any predictive power (answering RQ1). These findings provide further support that these measures of coordination are distinct. Although LLR was correlated

with PU at the bivariate level, its predictive power was lost once it was introduced into a larger model. LSM was able to aid in the process of feeling better and thinking differently about a situation. Along with the consistent lack of predictive power for the other language variables, this result suggests that the more semantic matching that occurs during the entire course of a conversation, the more the discloser is able to benefit, although the size of these effects was small in magnitude. LLR is conceptualized as a measure of semantic, immediate, and exact linguistic coordination and perhaps these boundaries might not be the best or most accurate way to capture repetition and its functionality. These results suggest that the more similarly speakers use language, the more benefit a distressed individual experiences, and that perhaps LLR could be computed differently to better represent exact repetition in conversation.

The last result revealed that dyad type was a significant predictor of each outcome measure; I also showed that LLR differed as a function of dyad type, while LSM did not (not supporting H4). Previous research suggests that LSM should vary as a function of relationship status such that friends are more likely to exhibit higher levels of LSM than strangers (Ireland & Pennebaker, 2010). This hypothesis was not supported. In fact, the results showed the opposite: friends had slightly higher LLR scores than strangers but were similar with respect to LSM. This result was surprising because of the strong claims made by Ireland and Pennebaker (2010) that friends should show higher levels of LSM than strangers, but there are empirical and theoretical reasons why their claim might be misguided. Babcock, Ta, and Ickes (2014) reported that LSM was highest in conversations in which individuals were disinclined to interact with each other. LSM actually did not represent closeness or the desire to even interact with someone; instead LSM was indicative of people trying to avoid each other and get through an uncomfortable situation. Results from Study 1 showed that LLR rather than LSM differed by relationship

status, such that friends repeated each other more than strangers. Because LLR did vary in terms of relationship history, this might give us insight into the functionality of LLR. Exact and immediate repetition seems to appear more in conversations between friends, suggesting LLR may be an indication of relational closeness or involvement.

Chapter 4 relied on a discourse analytic methodology to understand the similarities and differences of alignment among friends, active listeners, and strangers during supportive conversations. Results stemming from one conversation within each group revealed that supportive conversations can be accomplished in different ways. Using the JBCM, the results suggest that the conversation between friends tended to rely on several different topics while using formal and semantic repetition, non-exact repetition, and coordinating in an immediate and displaced manner; the conversation between strangers used the largest number of topics, speakers aligned immediately and exactly, but were able to engage in both formal and semantic repetition. Lastly, the conversation that included an active listener contained the fewest topics (only three) and used semantic and non-exact repetition in an immediate and displaced manner. Friends and active listeners showed a similar coordination profile but differed on levels of investment and affiliation. Friends seem to be more highly invested in their stances because they take more personal stances and align more frequently with the discloser; a friend might accomplish the genre of troubles talk as an active co-participant. In comparison, while active listeners do take stances, those stances are typically modified to almost repeat the discloser rather than forming a subjective opinion, showing less personal investment. Active listeners do not attempt to affiliate with the discloser; rather, strangers and friends are able to align in a way that shows investment and affiliation. The friend appeared personally and emotionally involved in the conversation by agreeing with emotional reactions and providing similar stories. The

stranger showed affiliation and involvement by taking the perspective of the discloser, such that the listener was able to voice opinions as the discloser. In general, listeners of different relationships accomplished support in unique ways that varied on the boundaries of coordination, investment, and affiliation.

Combining the results from Chapter 3 and 4, while using the JCMB, we get a picture of what “good” support could look like throughout a conversation. LSM was a significant predictor of supportive outcomes and is categorized as a semantic, non-exact, displaced form of linguistic coordination. Results also showed that dyad type was a significant predictor of outcomes, indicating that friends experienced more emotional improvement, cognitive reappraisal, and perceived understanding than strangers. Because interacting with a friend helped perceived emotional support, how friends align with each other should also have an impact on conversational outcomes. Results using alignment showed that friends used semantic and displaced repetition, had immediate and displaced repetition, and used a non-exact form of repetition. Active listeners had the same profile as friends, but differed on the levels of investment and affiliation (active listeners remained distant and less invested, whereas friends showed more affiliation and investment).

Given the results of LSM and how active listeners and friends align, both results suggest that effective support might come in the form of semantic, non-exact, and displaced coordination. Supportive messages that happen immediately and use exactly the same language (the profile of LLR and strangers) may not be as effective. Instead, support seems to take the structure of displaced messages. Interlocutors can focus on topics and return to those topics throughout a conversation. Perhaps if a discloser takes a stance at the beginning of a conversation and near the middle or end, the listener will be able to use that stance in a statement

of reflection or acknowledgement. Listeners may not have to immediately display sensitivity to a discloser or feel pressure to respond immediately to every utterance; rather, the listener can align with or acknowledge emotions at any time during a conversation. Thus, listeners may not have only a narrow window or a single chance to produce a highly sensitive message; listeners can gather information throughout a conversation and use that information to provide support at various times. Also, listeners may not have to use exactly the same words as a discloser for the discloser to benefit from support. It appears that using more non-exact forms of repetition might be perceived as more supportive than exact forms. Listeners can use their own words, either synonyms or even paraphrasing, to display sensitivity and support. This may work by increasing the genuineness of the support, a quality first realized by Carl Rogers in his work on therapeutic listening.

Limitations

There are three limitations that hinder the generalizability of findings in this dissertation. The first two limitations concern the ecological validity of the study. First, these conversations were conducted in a lab setting. Participants were assigned particular roles in this space (either as a discloser or listener), and each conversation was allowed to occur for five minutes only. This controlled space and time likely constricted the naturalness of a conversation in that participants might have altered their normal conversational habits. At the same time, the laboratory setting is a standard methodological tool for the study of social support and allows us to compare our results with past work. Options to consider in the future would be to have longer conversations and multiple conversations from the same dyad. Dyads in this study had only one five minute conversation regarding a single event which, while representing the techniques supportive listeners rely on, might not fully represent the process of coping.

Second, these data come from college students who were friends or strangers, and thus most of the problems reported were primarily academic and everyday stressors perhaps unique to this population. The population and nature of the stressors may not be generalizable to larger problems or to relational problems. In addition, this study addressed only two relational groups, namely friends and strangers. The process of support and how linguistic coordination is enacted might be different in the context of other relationships such as romantic partners, parents and children, or siblings. Future research should try to replicate these results by including samples from different populations or through a different conversational genre or from different relationship types.

Lastly, what this manuscript primarily fails to address that needs future empirical scrutiny is the actual process of matching. As of right now, LSM is a general equation that only takes into account the overall frequency of certain word categories; thus, we do not see the genesis of language production and subsequently “language matching.” In other words, who is doing the matching? Where do these words first appear in the conversation? Importantly, future research should begin to disentangle the causal structure of language use, matching, and the coping that is vital to people’s ability to recover after experiencing a stressful event.

Future Research

Given the goals and limitations of this dissertation, I hope to advance this line of research in three ways. First, given the null results of LLR, I would like to explore this variable’s predictive power with other interpersonal outcomes as well as using LLR in different operational ways. Since emotional improvement, cognitive reappraisal, and perceived understanding are not outcomes that LLR predicted, what can LLR predict? Using the current LLR algorithm, are there any outcomes that LLR can predict? Another option for future research would be to

explore how LLR is calculated and applied to conversation. Currently, LLR is calculated by only taking into account words that were repeated in the immediate utterance, which limits the range of repetition that LLR can capture. As seen from Chapter 4 and the displaced ways alignment was used, it might be more beneficial to make LLR capture words that get repeated throughout a conversation. A discloser might take a stance or say something of emotional value early on in the conversation, but if a listener repeats that word or sentence later on in the conversation (“So what I heard you saying earlier was. . .”), LLR isn’t sophisticated enough to capture that moment. Exact repetition of phrases and words that are displaced are totally ignored and not counted, thus limiting the potential accuracy and ability to find highly repetitive linguistic behaviors. Currently in this dissertation, LLR could benefit from expanding how it is used. Future research could look at the exact utterances that contain high LLR and code those utterances for pragmatic features. Perhaps utterances that have high LLR are instances in which questions are being asked or topics being closed. Another option for the future of LLR would be to look at who is doing more of the repeating. As of right now, the LLR measure combines both discloser and listener, but LLR does have the capability to analyze how much repetition happens per speaker. Combining this idea with the turn-by-turn pragmatic idea, future research could make claims that listeners typically use repetition to ask questions whereas disclosers typically use repetition to agree with an interpretation. The future of LLR is bright and has the potential to analyze and capture numerous features of linguistic coordination during conversation.

Another future direction appropriate for LSM, LLR, and AG is to analyze the timing of coordination. We know that repetition happens during a conversation, but when does that repetition start, when does it peak, and when does it stop? How long does it take for dyads to repeat each other, and does relationship status matter in that timing? By analyzing the timing of

repetition, we could see how the comforting process works and how support develops over the course of a conversation.

One last direction I would like to take is to combine elements of storytelling into the analysis of coordination and support. According to the expressive writing paradigm, the disclosure of emotions and the ability to form a coherent narrative is beneficial to coping with stressful events (Pennebaker, 1997; Smyth, True, & Souto, 2001; Pennebaker & Segal, 1999). During a supportive interaction, a discloser typically tells a story, and the listener is expected to respond in socially supportive ways. When listening to stressful stories, recipients have a large repertoire of communicative actions from which to draw when attempting to comfort someone in need. Combining either Labov's (1972) elements of storytelling (abstract, orientation, complicating action, evaluation, result, and coda) or Polanyi's (1985) adequate paraphrase elements (evaluation, event, and durative descriptive information) with linguistic coordination, we could understand where in the story is repetition the highest and what story content gets repeated the most. Perhaps the coda, where evaluation is typically high (Labov, 1972), is the part when alignment happens, or maybe a listener tends to repeat the event more than the evaluation. Pairing the content with the structure of a supportive interaction and the placement of coordination would enable us to see how narratives are formed, challenged, understood, and reinforced.

Conclusion

This dissertation contributes to the existing literature about supportive communication and linguistic coordination by analyzing three different operationalizations of verbal mimicry. Furthermore, this research provides full or partial empirical support for the application and conceptualization of LSM and LLR. This dissertation also provides three discourse analytic

profiles of alignment using two studies. Both studies center on the JBCM, presented in Chapter 2. Importantly, verbal mimicry appears in numerous forms and functions throughout supportive communication; LSM is shown to be a positive predictor of supportive outcomes, whereas LLR is not. Depending on relationship status, dyads enact linguistic coordination in variety of ways.

Findings indicate that LSM predicted supportive outcomes, and that active listeners were trained to enact behaviors to facilitate the coping process. In terms of the JBCM, LSM and active listeners both follow the same repetition boundaries (semantic repetition, both immediate and displaced repetition, and non-exact repetition) and are both important factors in the process of feeling better. Although active listeners had the same profile as friends, they differed in the levels of investment and affiliation (active listeners remained distant and less invested, whereas friends showed more affiliation and investment). This result suggests that perhaps support gets enacted in a more nuanced way; listeners use information learned throughout the conversation rather than just being a robot or parroting exactly and immediately what was previously said. Instead, individuals who provide effective support uses synonyms, engage in topics immediately but can also return back to those topics, and can paraphrase or use their own words to show understanding.

As a methodological contribution, this dissertation critiques the construct validity of various forms of repetition, while critiquing the usefulness of each approach. Using both statistical and close textual analysis approaches, I explored how different approaches capture linguistic coordination in unique ways. Future research projects should consider which form of coordination is more appropriate to capture in various contexts. As future research creates, refines, and theorizes projects on linguistic coordination to better reflect its multiple qualities

and to understand its function in conversation not only in supportive talk but in other genres, scholars from a wide range of fields can critically analyze a behavior that is pervasive within interpersonal interaction.

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APPENDIX A

RESEARCH ASSISTANT SCRIPT

I. All participants, upon individual arrival:

We will be using B17 (the room closest to the stairs; the interaction room) as the meeting room. The door to B16 (the observation room) should be closed and participants should be seated at a chair located at the round table in the far corner.

Actions:

- Prep all material prior to any participant arriving
- o Have one consent form on a clipboard at each chair
- o Make sure all material has the correct participant number on each page!!!
- Greet each participant and make sure s/he is in the right place
- If the student has brought a friend, then they can complete this study; if not, they need to be directed that they can complete an alternative study available on the RPS.
- Have qualified participants read and sign a consent form

II. Assigning roles:

(5 min)

To the Participants:

“Thank you again for your participation today. My name is [state your name] and this is [introduce other RA] and we will be directing you through the study today.”

“To make sure that I cover everything I will read from this script now. Let me first outline the three parts of the study that were covered in your consent form:

1. In the first part of the study you will be asked to fill out a packet of information.
2. In the second part of the study one of you will be asked to talk about a personal event and one of you will be asked to listen to that information. The conversation will be videotaped and will last five minutes.
3. In the final part of the study you will be asked to evaluate the conversation.

Does that sound fine with you guys?”

Assigning Roles

“Before we begin, I want to randomly assign you your roles for the conversation, that is who will be the one who gets to pick the topic and talk about it and who gets to respond.”

Approach the person who sits in the left chair and have him/her choose one slip from a container. GREEN = LISTENER; PINK = DISCLOSER]

[MAKE SURE to check off who is the Listener and who is the Discloser on check sheet!!!!]

“Let me please see the slip. OK, so you (turn to Discloser – PINK SLIP) will talk about a topic and you (turn to Listener – GREEN SLIP) will respond. How exactly that works we talk about in a minute, but is that fine with you guys?”

[If the GREEN SLIP is to your left side, ask participants to switch seats now.]

- “Before we do that, I need for you guys to switch seats because my talker always sits to the left and my responder always sits to the right. With over 200 dyads, I try to have some order on the video tapes.”

“Okay. Just for now, we will be separating you both while you fill out some individual paperwork; this should take you no more than ten minutes. Why don’t you [turn to Discloser] come with me.”

[So the listener stays in the room to fill out his/her paperwork. The discloser will fill out his/her paperwork in B16]

III. Pre-Conversation Packets

(20 min)

Actions:

- Separate participants
- o The discloser goes into B16 (the observation room).
- o The Listener stays in the interaction room, seated in his/her place.

Discloser instructions

“The first set of questions we would like you to answer are about your relationship with the (state name).”

Once finished with the relational measures: “Now, we would like you to take a moment to fill out this form that helps you identify the topic that you will disclose.”

[Picking an event: Look at the two events listed. Select the less seriously rated event. If both events are rated the same, pick the event that is closest in nature to an academic event]

Once finished with the event page: “Let me see. OK, why don’t you go ahead and talk about this event (highlight the selected event). Please go ahead now and fill out the other questionnaires having this event on your mind, and these questionnaires will also get you thinking more about the selected event so that you are then ready to talk about it.

Listener instructions

“Your role in the upcoming conversation will be to listen and respond as you normally would in a conversation about emotionally distressing events with your friends. Before you do that we’d like you to complete a few scales about yourself and your communication styles and your relationship with the discloser (state name).”

IV. Conversation:

(10 min)

Actions:

- Bring discloser and listener back together
- Collect all paperwork

For the Discloser and Listener:

“Let’s go ahead and prepare for that five minute conversation. Now, (Discloser name), why don’t you get ready to talk about the event that you and I identified. Talk about what happened and what made this particular event so distressing, how the event made you feel, and why it’s still painful/distressing now. Take your time and make sure to provide your conversational partner, (Listener name) here, with as much information as is necessary and as you feel comfortable disclosing, all right?

And you, (Listener name), you want to go ahead and respond as you normally would respond in a conversation about emotionally distressing events with your friends. So this is just a regular conversation meaning that, (Listener name), you talk too; it is just that we focus on (discloser’s name) topic. Any questions?

I’m going to leave and get some equipment set up. Feel free to chat for a minute or two, just don’t talk about the distressing event quite yet. You can begin that conversation as soon as I knock on wall. I will also knock on the wall when the five minutes are over so you know when I will be coming back in the room.

[Leave the room and indicate the beginning of the conversation after 1 minute.

After five minutes, knock on the door then enter to indicate the end of the conversation.]

Actions:

- While 1st RA is giving instructions, 2nd RA should stay in observation room and ensure equipment is RECORDING during small talk – the file name should be the dyad number (e.g., 001, 002)
- Knock on wall after exactly 1 minute so the conversation can begin

While the conversation is going, prep all post-conversation materials

- Make sure participant numbers are on all packet pages

V. Post-Conversation

(up to 20 min)

[After 5 minutes, knock on interaction room. Pause 3 seconds and enter.]

To Participants:

“We are now almost done with this study, thank you again for participating. [Turn to Discloser], please follow me and bring your belongings.”

“[Turn to Listener], you’ll remain here.

Actions:

- Listener stays to complete post packet
- Discloser follows researcher into B16

- One person stays with the listener, one with the discloser to assist in completing packet and answering questions

To each participant

“We are interested in learning more about your thoughts and feelings that occurred during the conversation. If you have questions while you fill out this packet, just ask.”

VI. Debriefing

(5 minutes)

Actions:

- Thank participants, debrief them
- Inform participants that research participation system will be updated within 72 hours
- If the friend wants research credit as well, take down their name, email address, and RPS log in information so you can add the student to the study and grant credit in 72 hours.
- Gather all post-conversation packets

Debriefing

“Thank you for your participation today. Since talking about and listening to stressful events can be a stressful experience we have taken the liberty to compile information about the Student Health Center if you need it. If you would like further information about this study, please let me know now, and I can provide your email address to the principle investigator. If not, you may go.”

For friends not signed up in RPS system:

“If your friend is the one who signed up in RPS and you would like credit, I will need you to write down the following information on our sign in sheet. We will then manually add you to the study. You’ll see a few emails – one showing you were added, another showing that you were granted credit. You’ll see those in the next few days.”

APPENDIX B

SURVEY PACKET FOR DISCLOSER

Post-Conversation Measures for Discloser

The following measures will be administered to the discloser – the individual who disclosed the problematic event – after the conversation

The following will preface the scales:

Now that you have finished the 5 minute conversation, we are interested in how your partner behaved and your perceptions about the conversation in general. This questionnaire that follows asks you to reflect about yourself, the distressful event you just disclosed, and your conversational partner. Please take as much time as you need to complete the following parts. And remember again: Respond to each question or statement as honestly as you can. Nothing will be shared with any of your friends.

Comforting Responses Scale

The following set of questions invites you to think more generally about your conversation with the other person. Carefully read each of the statements and indicate your answer on the scale next to each statement.

Please use the following scale to mark your responses:

- 1 =Never or almost never true
- 2 =Usually not true
- 3 =Sometimes but infrequently true
- 4 =Occasionally true
- 5 =Often true
- 6 =Usually true
- 7 =Always or almost always true

Emotional Improvement Scale (Clark et al., 1998)

I feel better after talking with my friend.

I feel more optimistic after talking with my friend.

My friend made me feel better about myself.

Cognitive Reappraisal Scale (Jones and Wirtz, 2006)

I understand the situation better now that I talked about it with my friend.

I feel that I ought to re-evaluate the event.

Talking with my friend about the event helped me get my mind off it

I don't really see the stressing situation in a different light (reverse coded).

The Active-Empathic Listening Scale (AELS) (Bodie, 2011)

Version: General, Self-Report

Please read each statement and indicate how frequently you perceive it is true with regard to the conversation you just had.

1 =Never or almost never true

2 =Usually not true

3 =Sometimes but infrequently true

4 =Occasionally true

5 =Often true

6 =Usually true

7 =Always or almost always true

Sensing

My friend was sensitive to what I was not saying.

My friend was aware of what I implied but did not say.

My friend understood how I felt.

My friend listened for more than just the spoken words.

Processing

My friend assured me that they would remember what I said.

My friend summarized points of agreement and disagreement when appropriate.

My friend kept track of points I made.

Responding

My friend assured me that they were listening by using verbal acknowledgements.

My friend assured me that they were receptive to my ideas.

My friend asked questions that showed their understanding of my positions.

My friend showed me that they were listening by their body language (e.g., head nods).

Notes: Items should be randomized prior to administration. If used for research purposes please cite as follows.

APPENDIX C SURVEY PACKET FOR LISTENER

Post-Conversation Measures for Listener

The following measures will be administered to the listener – the individual who originally signed up for the study – after the conversation

The following will preface the scales:

Now that you have finished the 5 minute conversation, we are interested in how you behaved and your perceptions about the conversation in general. This questionnaire that follows asks you to reflect about yourself, the distressful event you just listened to, and your conversational partner. Please take as much time as you need to complete the following parts. And remember again: Respond to each question or statement as honestly as you can.

Perceived Understanding:

The Active-Empathic Listening Scale (AELS) (Bodie, 2011)

Version: General, Self-Report

Please read each statement and indicate how frequently you perceive it is true with regard to the conversation you just had.

- 1 =Never or almost never true
- 2 =Usually not true
- 3 =Sometimes but infrequently true
- 4 =Occasionally true
- 5 =Often true
- 6 =Usually true
- 7 =Always or almost always true

Sensing

I was sensitive to what my friend was not saying.
I was aware of what my friend implied but did not say.
I understood how my friend felt.
I listened for more than just the spoken words.

Processing

I assured my friend that I would remember what they said.
I summarized points of agreement and disagreement when appropriate.
I kept track of points my friend made

Responding

I assured my friend that I was listening by using verbal acknowledgements.
I assured my friend that I was receptive to his/her ideas.

I asked questions that showed my understanding of my friend's positions.
I showed my friend that I was listening by my body language (e.g., head nods).

*Notes: Items should be randomized prior to administration. If used for research purposes
please cite as follows:*

APPENDIX D

LIWC CATEGORY OF POSITIVE EMOTION WORDS

adventur*	charit*	ecsta*	good	humor*	madly	revigor*	sweetly	worship*
affection*	charm*	efficien*	goodness	humour*	magnific*	reward*	sweetness*	worthwhile
agree	cheer*	elegan*	gorgeous*	hurra*	merit*	rich*	sweets	wow*
agreeab*	cherish*	encourag*	grace	ideal*	merr*	ROFL	talent*	yay
agreed	chuckl*	energ*	graced	importan*	neat*	romanc*	tehe	yays
agreeing	clever*	engag*	graceful*	impress*	nice*	romantic*	tender*	
agreement*	comed*	enjoy*	graces	improve*	nurtur*	safe*	terrific*	
agrees	comfort*	entertain*	graci*	improving	ok	satisf*	thank	
alright*	commitment*	enthus*	grand	incentive*	okay	save	thanked	
amaz*	compassion*	excel*	grande*	innocen*	okays	scrumptious*	thankf*	
amor*	compliment*	excit*	gratef*	inspir*	oks	secur*	thanks	
amus*	confidence	fab	grati*	intell*	openminded*	sentimental*	thoughtful*	
aok	confident	fabulous*	great	interest*	openness	share	thrill*	
appreciat*	confidently	faith*	grin	invigor*	opportun*	shared	toleran*	
assur*	considerate	fantastic*	grinn*	joke*	optimal*	shares	tranquil*	
attachment*	contented*	favor*	grins	joking	optimi*	sharing	treasur*	
attract*	contentment	favour*	ha	joll*	original	silli*	treat	
award*	convinc*	fearless*	haha*	joy*	outgoing	silly	triumph*	
awesome	cool	festiv*	handsom*	keen*	painl*	sincer*	true	
beaut*	courag*	fiesta*	happi*	kidding	palatabl*	smart*	trueness	
beloved	create*	fine	happy	kind	paradise	smil*	truer	
benefic*	creati*	flatter*	harmless*	kindly	plays	sociab*	truest	
benefit	credit*	flawless*	harmon*	kindn*	pleasant*	soulmate*	truly	
benefits	cute*	flexib*	heartfelt	kiss*	please*	special	trust*	
benefitt*	cutie*	flirt*	heartwarm*	laidback	pleasing	splend*	truth*	
benevolen*	daring	fond	heaven*	laugh*	pleasur*	strength*	useful*	
benign*	darlin*	fondly	heh*	libert*	popular*	strong*	valuabl*	
best	dear*	fondness	helper*	like	positiv*	succeed*	value	

better	definite	forgave	helpful*	likeab*	prais*	success*	valued
bless*	definitely	forgiv*	helping	liked	precious*	sunnier	values
bold*	delectabl*	free	helps	likes	prettie*	sunniest	valuing
bonus*	delicate*	free*	hero*	liking	pretty	sunny	vigor*
brave*	delicious*	freeb*	hilarious	livel*	pride	sunshin*	vigour*
bright*	deligh*	genero*	hoho*	LMAO	privileg*	super	virtue*
brillian*	determina*	gentle	honest*	LOL	prize*	superior*	virtuo*
calm*	determined	gentler	honor*	love	profit*	support	vital*
care	devot*	gentlest	honour*	loved	promis*	supported	warm*
cared	digni*	gently	hope	lovely	proud*	supporter*	wealth*
carefree	divin*	gigggl*	hoped	lover*	radian*	supporting	welcom*
careful*	dynam*	giver*	hopeful	loves	readiness	supportive*	well*
cares	eager*	giving	hopefully	loving*	ready	supports	win
caring	ease*	glad	hopefulness	loyal*	reassur*	suprem*	winn*
casual	easie*	gladly	hopes	luck	relax*	sure*	wins
casually	easily	glamor*	hoping	lucked	relief	surpris*	wisdom
certain*	easiness	glamour*	hug	lucki*	reliev*	sweet	wise*
challeng*	easing	glori*	hugg*	lucks	resolv*	sweetheart*	won
champ*	easy*	glory	hugs	lucky	respect	sweetie*	wonderf*

APPENDIX E

LIST OF ACTIVE LISTENING BEHAVIORS

Active Listener Reminder Sheet

Active listening is a term that is used widely across the academic landscape. As such, it is not surprising that many definitions have been forwarded and many specific behaviors recommended. In general, however, most would agree that three primary attitudes are central to active listening: acceptance, empathy, and congruence (genuineness).

Acceptance means accepting your partner in conversation and not evaluating him/her, taking your partner as s/he is. That does not mean that you also have to state your agreement with what has been said, but you should not regard your own point of view as universally valid. Instead, permit other interpretations.

Empathy means that you try to enter into the other person's world and see things with his/her eyes, so that you can understand him/her better. Empathy is feeling what the other person feels, but without making his/her pain your own.

Congruence means that you yourself remain "genuine." You should not be dishonest with the other person, should not repress your own feelings. If something seems incomprehensible or even absurd to you, you should say so—but without denigrating the other person.

To help display these attitudes, we would like you to focus on the following behaviors, while being as natural as you can employing them.

-
1. Paraphrasing – repeating what was said in your own words, the way you understood it. Remember to use short introductions to your responses that indicate you are only speculating (e.g., It seems like; It appears; So the way you see it...).
 2. Reflecting feelings – trying to detect the feelings that underlie certain statements and mirroring them to your conversational partner. Again, remember to use short introductions to your responses that indicate you are only speculating (e.g., It seems like; It appears; So the way you see it...)
 3. Open questions – asking questions in a way that facilitates open conversation so that the person does not feel interrogated or judged
 4. Check-outs – short questions that seek to ascertain the degree to which you have accurately captured the meaning of the participant's response (e.g., Did I hear you correctly? Does that fit for you?)
-

APPENDIX F
FRIEND CONVERSATION “THE STARING WEIRD DUDE”

1. L: ok so a stressing conversation was um I went to this party recently
2. R: mhm
3. L: and almost immediately after walking in through the door I see my ex boyfriend who like I had an
4. awful break up with
5. R: yea yea yea the one that you said
6. L: no no no this is the one, this is a different one
7. R: oh ok
8. L: this one was this guy he was friends through like a mutual friend of mine,
9. R: ok
10. L: so we knew each other through one person and we just kinda hit it off, started hanging out and I don't
11. know, it was, he was a weird dude and he like was into yoga a lot like in an intense kinda of way
12. R: yea yea yea, no
13. L: where you know he drank tea all the time
14. R: I know what you are talking about
15. L: he like purified his body and would meditate every morning
16. R: yea
17. L: and um I knew that it wouldn't be a thing
18. R: yea
19. L: but it ended up like there were physical aspects of it as like with any kind of relationship
20. R: yea
21. L: especially now but things kind of ended where I didn't end things correctly
22. R: OK
23. L: Because I just like stopped talking to him
24. R: oh,
25. L: he –
26. R: were you just like sick of the relationship?

27. L: yea he like wanted to take things to the next level and
28. R: meaning?
29. L: whoa, I really don't know he, he wanted to get really serious and intimate and be exclusive to each
30. other
31. R: yea
32. L: And I was just like not ready for that
33. R: yea
34. L: so I just like backed out entirely
35. R: yea
36. L: so walking into this room and he was like the first person I saw I was like oh hey, how are you,
37. because like I haven't talked to the guy in months
38. R: yea
39. L: and all the sudden like bam
40. R: why didn't you just ignore him?
41. L: I tried to but he kept like giving me glares from across the room
42. R: Oh god
43. L: and so I was just like incredibly uncomfortable
44. R: yea
45. L: and I don't know it's just been like sitting not well with me ever since just because
46. R: yea yea yea
47. L: it's such an awkward conversation to have, it's like hey sorry it didn't work out and I stopped talking
48. to you entirely
49. R: did he like call you multiple times?
50. L: he would text me a lot and he was like I don't understand why this isn't happening
51. R: yeah
52. L: or why you're not communicating with me
53. R: yea
54. L: I was like I don't want to say I am completely uninterested in anything you have to tell me but it, that

55. is what it was and I hate those situations where I feel like I am the bad guy but its
56. R: I mean you gotta do what you gotta do
57. L: exactly, so I don't know, I haven't seen him since and I am really thankful for that, I don't know
58. R: it's just avoid and avoid the situations
59. L: yea and it's the mutual friend he'll like bring him up sometimes and it's immediately like I don't care
60. R: Yeah, wait just stop
61. L: this makes me uncomfortable, can he just like not talk about him but
62. R: this is a good story
63. L: and, I know not plus the fact that I am drinking and
64. R: yea
65. L: trying to have a good time with people like across the room
66. R: yea
67. L: and not paying attention to this guy, it's just kinda
68. R: when was this?
69. L: this was um January
70. R: ok
71. L: just as like school started back
72. R: yea yea yea
73. L: he had just graduated and so he was still hanging out on campus
74. R: oh! So cool!
75. L: but I don't know he was just a weird dude
76. R: what about him was weird besides his like yoga obsession, did you, were you not very very interested
77. in him?
78. L: I mean, he was cute, he was like an attractive guy but he was like do this weird awkward stare it was
79. weird
80. R: yea
81. L: just trying to read your thoughts
82. R: yea

83. L: it just made me uncomfortable a lot of the time

84. R: yea, you just have that zing or something

85. L: no! there wasn't any fire fireworks or

86. R: yea

87. L: or anything and, I don't know, I feel like I handle situations pretty well where it comes to

88. uncomfortable things

89. R: yea

90. L: because I am upfront about it, like, I don't like you

91. R: yea yea yea

92. L: but when it comes to like matters of the heart, it's always just yucky and messy

93. R: isn't it?

94. L: and I don't, I don't, I never know how to handle those kinds of things

95. R: no, I know exactly what you mean, to see the ex, to see any guy that you've kind of had a thing with,

96. where you've just decided not to like, pursue

97. L: I know! Anything! Even if you've like made out with him for like once! And you see him and you're

98. like oh god! I'm sorry! Ew! It's just like

99. R: exactly! Exactly!

100.L: kind of rough.

101.R: it's just like oh um I I, who are you? No, I don't know who you are but I will pretend

102.L: I will try to pretend that I don't know you, can we can we do that?

103.R: yea, right after I broke up with my ex boyfriend I would see him at the gym and I would pretend he

104.didn't exist

105.L: yea

106.R: until I switched gyms because he would be like giving me like, glares, I'm like oh my god

107.L: that's awful, I don't know, this guy he, he went to Hawaii recently

108.R: nice

109.L: so

110.R: for good?

111.L: for good

112.R: fabulous!

113.L: I know, so I don't have to like run into him ever again in my entire life

APPENDIX G
STRANGER CONVERSATION “NOT YET VALENTINE”

1. L: Does that mean we get started?
2. R: Yeah
3. L: Ok, this is the most embarrassing thing ever.
4. R: LOL
5. L: Um... my boyfriend, forgot 100% about Valentine's Day.
6. R: Wow, so wait... this is just recently?
7. L: mhm
8. R: LOL... Ok
9. L: LOL, Ahuh. And... but the thing is, I kept trying to like... I kept trying to get the idea in his
10. head. Like, 'You know, Valentine's Day is coming up.' But like but like he wasn't paying
11. attention. He's like, "Ok, ok, ok..." So like, I had to, already like plan something for us to do, but
12. like, for myself too, in case he forgot. (R: mhm) So, I like, planned for us to get, like, a couple's
13. massage anyways. So, I still could get my own massage. But um... LOL
14. R: LOL. So he forgot...
15. L: Completely!
16. R: Completely.
17. L: Not even a card, not even a homemade card.
18. R: Awwwww. That sucks... well, you did have a valentine. I didn't have one. Like, what- what-
19. was this ya'll first valentine's day together, or...?
20. L: Uhh... kinda, like last year, we weren't really officially dating yet...
21. R: Ya'll just friends?
22. L: Yeah,
23. R: Okay
24. L: so we definitely didn't do anything then. But, and he's like, "Are you mad?" I was like,
25. "Nope." But I purposely, like texted my friend about it, and left it on my cell phone...
26. R: So he could see it.

27. L: So he could see it.

28. R&L: LOL

29. L: mhm

30. R: That was smart! That was smart! So, what did he say- when did he realize it was Valentine's

31. Day?

32. L: The day before we- like that weekend- valentine's day was on Monday. (R: mhm) And the day

33. before, we were at his aunt's farm in Mississippi, (R: mhm) and like, that weekend we were

34. there. And then his aunt said to him, "You know Valentine's Day is tomorrow." And he's like

35. "(gasping)" and I'm like, "Yep, I know!" LOL

36. R: LOL, and he did not know...

37. L: Nope!

38. R: Like, how could you- I guess, idanno. Some people just don't care about it. (L: but) But how

39. could you forget (L: but) about it if you have a girlfriend? Then you threw hints, you threw

40. hints, and he can catch on.

41. L: Yes, and like, I didn't get real mad about it. The only thing I did about it was, the whole

42. texting thing.

43. R: So what was his reaction to the text?

44. L: He didn't say anything for a while, but I know he went through my text. LOL. And then one

45. time we like got into a fight. He's like, "Ya, you're mad that I didn't get you anything for

46. Valentine's day." And was like, "What are you talking about?" "You texted Whitney about it."

47. And I was like, "Oh, what I said was whatever." And he's like, "Oh."

48. R: So he really just acted like, it was no big deal?

49. L: And he's like, "You know I have something planned, right? It's just, not yet." And I was like,

50. "Oh, ahuh." And since then..

51. R: How do you have something planned?

52. L: Since then, I haven't heard of any of these plans or anything.

53. R&L: LOL

54. R: How do you have something planned... and then, just be like, 'I have something planned, just

55. not yet?

56. L: I don't know

57. R: That's kind like a contradictory statement, you know? (L: mhm) He's like, 'I have something

58. planned, but not yet.' Ahh man!

59. L: Yeaah.

60. R: And I bet those couple's massages would have been nice.

61. L: No we went, like. We went, (R: y'all went? Oh y'all still went?) because that was mine- that

62. was my present.

63. R: Ooooooh!

64. L: Yeah. At first, I was just like, let him get a massage, because he never got a massage before.

65. And neither have I, so I was like, ok, well I'll just do it to.

66. R: (inaudible) So what did he say- like did he even say anything like while y'all were getting a

67. massage?

68. L: I didn't even tell him- It was a surprise. He's like...

69. R: Awww

70. L: And so, like, he thought I didn't do anything for him for valentine's day, because the massage

71. place was booked on valentine's day. So (R: yeah) we did it the day after.

72. R: Oooh.

73. L: And I was like, "Oh, come run with me really fast, I have to pick up your present." He's like,

74. "How long is it going to take?" I was like, "I don't know, Ten minutes." When we got there, it

75. was like an hour long massage. So, he was surprised.

76. R: LOL. I bet he felt bad.

77. L: Uhhh... hopefully, he learned his lesson.

78. R: LOL. I'm sure he did. I'm sure he didn't because- you remember that he didn't... and, you

79. gotta give. And he's-has even given you a gift or anything?

80. L: Ah-ah

81. R: Not yet. Oh, that's right. He still has something "planned."

82. R&L: LOL

83. R: Well ... I understand, I mean...

84. L: Ah, I was so mad.

85. R&L: LOL

86. R: I don't blame you, because that's something- if you're in the relationship, you don't forget it.

87. (L: mhm) Especially if ya'll have been conversing...

88. L: It's been like- and we've been, like dating for five months.

89. R: See, ya'll have been dating for five months, and not only have ya'll been dating,

90. ya'll been- you know, ya'll were friends before that (L: before that)

91. R: So, it's not like- he shouldn't be new to this... he (L: yeah) shouldn't

92. L: My best friend is a guy, and he gives me Valentine's Day presents.

93. R: Well..

94. R&L: LOL

95. R: So did you get one this year?

96. L: Huh?

97. R: Did your best friend get you one this year?

98. L: Oh, he mailed me a card, like... he's from Virginia.

99. R: Oh, so he mailed you a card. And what did your boyfriend say about that?

100.L: Oh, he knows we're best friends.

101.R: I mean, like, he didn't say "Ah man..."

102.L: I was like, "Oh look... Cole sent me a card."

103.R&L: LOL

104.R: Oh gosh, that's- that was horrible... (L: mhm)

105.R: and then for him to not even like...

APPENDIX H

ACTIVE LISTENER CONVERSATION “DISPLACED SISTERS”

1. L: Um, my sister and I are like, really close. And she got married.... a couple months ago. And
2. they ended up moving to Nacogdoches, Texas, which is in the middle of um, nowhere, actually.
3. And so it's just a long- like we've always lived in Baton Rouge, we've been really close, and now
4. that she's away I don't see her every day, and so... it's just kinda, like hard because I like to talk to
5. her all the time. But we like, skype and umm... like, talk to each other on the phone every day.
6. So, it's still good, but it's hard to make trips up there to see her because it's like, five and a half
7. hours away. LOL.
8. R: Yeah.
9. L: But she comes back like every weekend and stuff, so... I mean, it's just...
10. R: That sounds like it's a new thing, but you're kind of getting used to it.
11. L: Oh yeah, I'm getting used to it. Because my whole family lives here, like all my cousins, my
12. fam- like everybody. So, it's just kind of like, someone leaving is kind of hard for us to-
13. everybody to get adjusted. And one of my cousins who used to live in Texas, but she moved
14. back here, so it's like hard for my sister to be away and... but, they're making it. It's just a big
15. change in her life and ours, I guess.
16. R: I was going to say, yeah it sounds like a big change in your life too.
17. L: Yeah.
18. R: You got the support at home, and stuff.
19. L: Right. Right, and she doesn't really... like it that much. So to hear her complain is like, "Well I
20. can't do anything to help you, but... I dunno, so...
21. R: Yeah, and not only do you have to- you're losing, you know, her. It's like a support you're
22. losing, and... you're having to support her...
23. L: LOL, yeah! I'm like, "OK! Well, come on back in a couple months to visit..." I dunno. LOL.
24. Like, she went to LSU too and always just... here. And now she's not, so...
25. R: Well, that's got to be tough.
26. L: Yep. LOL.

27. R: You sound kind of confused too. Like about it, yeah.

28. L: Yeah. Because I'm happy- I'm happy for her. Because she's married and happy, and has a job,

29. but it's just kind of... I dunno, hard to see her there. Especially, when she's struggling there too,

30. it's hard to like, give her happiness over the phone. LOL. And like, confidence, "Oh it'll be fine"

31. and "It'll work out" and they're looking for ways to get out of there, and move back or

32. somewhere better than...

33. R: Than Natchez...

34. L: Nacogdoches- No, Nacogdoches!

35. R: Na-na- Yeah, Nacogdoches.

36. L: They wish they were in Natchez.

37. R&L: LOL

38. R: Yeah.

39. L: So, I dunno. But, it's ok. I see them a lot.

40. R: Yeah, it sounds like- you said you were like, giving her like, different like, support over the

41. phone and saying stuff, so..

42. L: Oh yeah. And it's like, we always talk to- like, call each other and be like, even like, "What

43. should I do about this class?" Or like, "What outfit do I want to wear to go out?" Or like, LOL.

44. So, it's just a trans- a big transition, I would say.... to figure things out.

45. R: Umhmm. Going from seeing her, like, I guess, everyday to... now it's like, skypeing and

46. stuff.

47. L: Yeah- yeah. It's hard. And so, but it's always harder on her than me. LOL.

48. R: Yep. Well it's just...because?

49. L: It's her and her husband. They got married and then um, like... a month before their wedding

50. he had- he had a job offer there. So he had to take it and said- she's like, "Hey well, I guess I'm

51. moving at last minute." It wasn't really in their plan, but... it'll work out, eventually.

52. R: Yeah, it sounds like- you were saying that they're still looking at other places to...

53. L: Oh yea! Its ah- it's a temporary thing, but, I mean he's like in Football, so he could move

54. anywhere, really. But his ideal would be at LSU, but they're not there high...

55. R: Not there yet...

56. L: Yeah. So... I mean they could like, move anywhere in the country, which is kind of... I dunno,

57. I don't really like that idea very much. LOL.

58. R: You said that it's all tough on her, but you have the support, but it's gotta be- it sounds like

59. it's tough on you.

60. L: It is. It is, because there's no other sibling so it's kind of like... And I'm the youngest, so it's

61. like I've always had my big sister to, like... I dunno. Just there- just to get a little support. You

62. can say anything that you want, but I know that'll be ok.

63. R: Yeah. It does- it sounds like you've got a good, like... I dunno, you have support here, and

64. you're talking to her and keeping up. It's just kind of getting used to that...

65. L: Umhmm. It's just a- because I just went away to college, so it's kind of like a new thing for

66. both of us. Hmm... it's learning how to cope with it, I guess. So...

67. R: Well, it sounds like a really distressing thing, yeah.

68. L: Oh yeah...

69. R: But also on the other hand like, I'm hearing you're going to get through it...

70. L: Oh yes. It's not going to be forever.

71. R: Yeah. Like, I've heard you say that a few times. Like, "It's not going to be forever."

72. L: Yeah, I just- yeah. That's what she keeps saying to make herself feel better. LOL.

73. R: So, that's what you're telling her, but she's- but she's also telling...

74. L: Yeah. She's reassuring herself by telling me that. I guess you could say.

75. R: Yea

VITA

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