CONVERGENCE COMMUNICATION SCALE: INSTRUMENT DEVELOPMENT AND THEORY TESTING

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by
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Abstract

In order to empirically test Necessary Convergence Communication theory (Miller-Day, 2004), a valid measurement of the convergence communication construct is needed. In this study, a convergence communication scale is developed, refined, and then applied to a preliminary testing of the necessary convergence communication theoretical model. The convergence communication scale was normed on 373 respondents and results suggest a valid and reliable instrument that assesses the construct of convergence communication as well as its’ three subscales of motivation, interpersonal deference, and disequilibrium. Convergence communication was significantly associated with impeded differentiation of self and increased learned helplessness, and was able to predict depression when controlling for these variables. There were also moderate associations between convergence communication and depression as well as physical aggression.
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Chapter One:
Introduction

Communication scholars highlight the role of messages in interaction; focusing on what people say and do and also on the meanings of messages exchanged in communicative interactions. A review of 10 introductory communication textbooks revealed 80% of the texts referred to communication as the process of collaboratively making meaning. It is surprising, then, to find a lack of social scientific literature that actually addresses the idea of meaning in communication. Berger (2005) argued that the interpretation of meaning in “interaction routines,” as he calls them, has largely been ignored by communication researchers and, consequently, there is a gap in the communication literature in this area. In his review of interpersonal communication research, Berger (2005) pointed out that most approaches to understanding messages in interpersonal contexts do not take into account the “meaning-making” aspect of communication, ultimately arguing that --while there are theories that discuss message production--theories that explain the linkages between messages, the meanings assigned to messages, and relational outcomes of this meaning-making process still need to be developed (Berger, 2005). A broad goal of this dissertation is to address this gap in the interpersonal communication scholarship.

A focus on meaning is important for the study of communication in relationships. Duck (1995) argued that relationships are created and maintained through discourse. This means that communication is constitutive of relationships; that is, communication enacts, develops, and constitutes relationships. According to Duck (1995), a relationship actually resides in the speech of relational members, and more generally in the meaning that is attributed to that speech.

1 The textbooks reviewed included: Adler, Rosenfeld & Towne (1992); Barbour & Goldberg (1974); Duck (1991); Knapp (1978); Patton & Giffin (1974); Trenholm & Jensen (1992); Wright (1999); Galvin, Bylund, & Brommel (2004); Yerby, Buerkel-Rothfuss; & Bochner (1990); and Dickson (1988).
Through symbolic interaction humans develop, assign and share meanings, define themselves, and define their relationships (Leeds-Hurwitz, 2006; Wood, 1992). Given, the importance of attributions of meaning in relational interaction, it seems reasonable to assert that interpersonal communication scholars should be in the business of examining the ways in which meaning-making constitutes personal relationships and discovering ways in which meanings are co-constructed, and perhaps manipulated, in relational contexts.

Scholars such as Koerner and Fitzpatrick (2002) also argue for more scholarly attention to the assignment of meanings in specific relational contexts. Their research addressed intersubjectivity and interactivity in family communication; with intersubjectivity referring to sharing thoughts within a communicative episode and interactivity referring to the “degree to which symbol creation and interpretations are linked” (Koerner & Fitzpatrick, 2002, p. 73). Both intersubjectivity and interactivity are central aspects of the meaning-making process, with intersubjectivity referring to a personal-level construction of meaning and interactivity referring to a relational-level construction of meaning. These authors argue that understanding meaning on both the personal and relational levels is necessary for any theory that addresses personal relationships.

Given the arguments of Berger (2005) and Koerner and Fitzpatrick (2002), among others such as Duck (1995), it seems the study of messages and the interpretation of those messages by interactants in interpersonal interactions should be germane to interpersonal communication scholarship. Theory development about the processes and implications of interactivity in personal relationships could help generate new knowledge and guide future relational, interpersonal, and family communication research. Miller-Day’s (2004) necessary convergence communication theory (NCC) is a contemporary theory that explains how relational power may
affect the interactivity in personal relationships. This theory posits that certain patterns of communicative interaction involving the coercion of meaning, called convergence communication, can have deleterious affects for personal relationships.

Necessary convergence communication theory (Miller-Day, 2004) was generated inductively through grounded theory, leading to several theoretical suppositions about convergence communication. Miller-Day invited researchers, however, to “test the suppositions offered [in this theory]. Perhaps the suppositions will be falsified, but perhaps [they will receive support] (p. 225).” Yet, these suppositions cannot be empirically assessed without a valid measurement for convergence communication. Therefore, within the broader goal of increasing knowledge about meaning-making processes, the specific purpose of this project is to build and test a measurement instrument that will validly and reliably assess convergence communication and conduct a preliminary test of NCC theoretical model.

In the next chapter, I will provide a historical overview of research that has focused generally on meaning-making in communicative interaction, and then, in the next chapter, more fully detail theories that have guided this research. There are two theories that have historically guided research in the area of meaning and communication--Social Constructionism and Symbolic Interactionism, and one mid-range theory that offers new direction--Necessary Convergence Communication Theory.
Chapter Two:
Background and Guiding Literature

Brief Historical Overview

Meaning in Communication

Heacock and Spicer (1986) critically noted that research in the communication discipline through the mid 1980’s had focused more on the products of communication than on the process itself. For example, scholarship exists on problem-solving, decision making, and conflict resolution, but much less exists on the communication that serves to accomplish these tasks. While some research in the early 1970’s argued for more scientific investigation of communication processes in the context of relational interaction (e.g., Nwankwo, 1973); by and large, in the 1970’s there was very little of this research being done in the field of Communication. By the mid 1980’s, however, interpersonal scholars became more interested in the interpretation of messages and the co-construction of meaning in relationships. During the 1980’s scholars such as Steve Duck (1982, 1983) and Julia Wood (1984, 1986) were arguing for a view of interpersonal communication through the lens of meaning. According to these scholars, all relationships are constructed and maintained primarily though the communication and negotiation that takes place between relational parties (Duck & Lea, 1982; Wood, 1984). Julia Wood’s research launched a series of investigations into the construction of shared meaning in interpersonal relationships. For example, Wood (1986) explored the topic of work and family by focusing on the how family members co-constructed meanings of work and family. Richardson (1988) investigated meaning in interaction with her study of how forbidden relationships were mutually negotiated. Additionally, Stephen (1986) pointed out that enduring relationships are
characterized by agreements between members as to the meaning of things, constructing a relational culture that reflects the members’ symbolic interdependence.

Communication research in the 1990’s, such as Jorgenson (1994) and Bohannon and Blanton (1999), applied social constructionist and symbolic interactionist frameworks to human social interaction to increase understanding of how message exchange and interpretation profoundly influenced social life. As MacRae (1995) pointed out, all relationships are constructions and must be negotiated within the constraints of the world in which they live. Jorgenson (1994) examined how newly married couples construct the in-law relationship. This research pointed out that something as simple as names used to address in-laws imply cognitive constructions of the relationship (Jorgenson, 1994). From a symbolic interactionist perspective, relational meaning is created through interaction with others. In a similar study, Bohannon and Blanton (1999) examined the gender role attitudes of mothers and daughters. They found that gender role attitudes varied with the relationship and across time, however, a daughter’s attitudes about gender roles were significantly influenced by how her mother felt and talked about gender roles (Bohannon & Blanton, 1999). These authors suggested that meanings linked to important social concepts, such as gender role, can be strongly influenced by interaction with consequential others.

In more recent years, a constructionist framework has been applied to explicate a variety of issues pertinent to interpersonal and family contexts. Specifically, research has been conducted to examine the construction of sexual identities (Horowitz & Newcomb, 2002); the conflicts that occur between work and family (Shumate & Fulk, 2004); parent and peer influences on adolescents (Werner-Wilson & Arbel, 2000); the social construction of learning disabilities (Dudley-Marling, 2004); power relations in marriage (Benjamin & Ha’elyon, 2004);
family socialization of ethnic identity (Cheng & Kuo, 2000); adolescents’ plans for family formation (Starrels & Holm, 2000); and bullying (Christie-Mizell, 2003).

Two more recent studies have focused specifically on the creation of meaning within the family. Baxter and Braithwaite (2002) examined the performance of marriage through renewal rituals. They used a family communication approach, which views communication as constitutive of the family.

Through their communication practices, parties construct their social reality of who their family is and the meanings that organize it. From this perspective, social reality is an ongoing process of producing and reproducing meanings and social patterns through the interchanges among people. From a family communication perspective, marriage is thus an ongoing discursive accomplishment (p. 94).

Moreover, while marriage is a construction, it is also a social institution and must be considered within that parameter. Additionally, Golden (2002) examined spousal collaboration when defining roles and developing shared meanings. Since there is a lack of specific guidelines for spouses to follow in many situations, they must negotiate roles that work within their relationships. Golden (2002) argued that a communication perspective on this issue requires a “focus on the processes of creating shared meanings” (p. 124).

This chapter, thus far, has argued for greater understanding of the process and implications of meaning construction in close personal relationships and has revealed that much of the communication research in the past 50 years that addresses the role of meaning in communication has been guided by two metatheoretical frameworks—social constructionism and symbolic interactionism. Despite this valuable past research, there is much to be learned about the process of creating shared meanings in interpersonal relationships. For example, Miller-Day
(2004) pointed out that the co-construction of shared meaning implies an equitable balance of power among the participants who construct meaning in a shared fashion. Additionally, Dunbar’s (2004) research argued that interaction is essential for understanding power in close relationships. Theoretically, social constructionism and symbolic interactionism explicate the larger dynamic process of message exchange, meaning interpretation, and the negotiation of relational culture; whereas contemporary theories, such as necessary convergence communication theory (Miller-Day, 2004), specifically address the influence of relational power in that process. The following chapter will provide additional background on the metatheoretical frameworks of social constructionism and symbolic interactionism, review necessary communication convergence theory, and pose hypotheses and research questions for the present study.

Metatheories

Social Constructionism. Social Constructionism (Berger & Luckmann, 1966) is a sociological theory that explains how humans understand and behave toward objects depends on their social reality. Socially constructed reality is seen as an ongoing, dynamic process; reality is produced by people acting on their interpretations and their knowledge of it. This theory states that personal and social meanings and understandings emerge from communication with other people (Gergen, 1985). If a relationship is just a series of interactions as Duck argued (1995), this theory could help to explain meaning in all relationships.

There are three large tenets of social constructionism: communicative action is voluntary, knowledge is a social product, and knowledge is contextual (Berger & Luckmann, 1966). Voluntary communicative action means that people can make choices within the social environment about what are possible actions. The notion of knowledge as a social product
means that there is no objective knowledge. Knowledge is something gathered over time through interaction with others. Knowledge is also contextual; it can change over time, and comprehension of that knowledge can depend upon context and interpretation. These assumptions lead to four basic tenets: a) people make sense of experience by constructing a model of the social world and how it works, b) language is the most important sign in human society, c) the way we create reality is through conversation, and d) there must be interaction between two or more people for this reality to be created (Leeds-Hurwitz, 2006).

Given these tenets of social construction, scholars such as Leeds-Hurwitz (2006) and Baxter and Braithwaite (2002) argue that when applying this metatheory to the study of relational communication there should be an emphasis on how the relational partners jointly construct meaning within relational interaction. It is not enough just to understand what is said between partners, but also what is meant. Hoffman (2000) articulates this idea when discussing communication process:

Words within themselves bear no meaning; they fail to communicate. They only appear to generate meaning by virtue of their place within the realm of human interaction. It is human interchange that gives language its capacity to mean, and it must stand as the critical locus of concern (p. 12).

Symbolic Interactionism. Symbolic Interactionism (SI) is a sociological perspective based on the work of Cooley, James, Mead, and Blumer (Crooks, 2001). Herbert Blumer, coined the term "symbolic interactionism" and summarized Mead’s perspective: people act toward things based on the meaning those things have for them; and these meanings are derived from social interaction and modified through interpretation (1969). Armstrong (1999) related the three premises that SI is based on:
(a) Human beings act toward things on the basis of the meanings that the things have for them, (b) the meaning of the things arises out of the social interaction one has with others, and (c) the meanings of things are handled in and modified through an interpretive process used by the person in dealing with the things he or she encounters (p. 232).

Lal (1995) argued that communication, and especially language, is central to SI because it enables shared understandings to exist between members of a group, as well as transmitting their ideas to others. SI theory offers a useful frame for the study of relationships in particular because a “relationship” is a social construct and there is meaning making that occurs among members of a relationship (Leeds-Hurwitz, 2006).

Lal (1995) contended that the world is comprised of social objects. These objects take many forms including the physical (such as a shoe) as well as the conceptual (such as patriotism). Communication, as an object of explanation, could be considered a concept. Lal posited that the meanings of such concepts are “considered through a process of interpretation during which the actor takes into account the relevant objects in the situation he or she confronts, including the activities of others, the anticipated activities of others, conventional definitions of the situation, past experience, goals, interests, values, and so on” (1995, p. 426). This means it is difficult to ascertain meaning in relationships without considering the other person, the relationship, and the context of the interaction.

Another key concept of SI is the idea of the self. Blumer (1969) described self as a uniquely human attribute developed through a continuing process of social interaction with others. Armstrong (1999) argued that the self is at the center of symbolic interaction and a powerful motivator for human behavior, communication, and interaction. Individuals develop patterns of thought, organize ideas, and decide meaning through interaction. Interacting with
others determines the meaning of specific symbols as well as which symbols are most meaningful to the self. Prus (1989) concluded that SI is perspective oriented, self-referent, and negotiable. Further, it is processual in that it allows the participants to become involved in a process of social and cognitive exchanges.

The symbolic interactionist focuses on human behavior as the expression of a system of meaningful symbols. The primary way that humans exchange symbols is through language. “Language is a system of symbols that allows humans to communicate and share abstract meaning. Language gives humans the capacity to become social creatures” (O’Brien & Kollock, 2001, p. 69). The association of meaning with people, objects, and relationships is a process that continues across time; it is an ongoing process of negotiating meanings with yourself and the “other” in interaction within the confines of your conceptual frameworks and experience (O’Brien & Kollock, 2001).

Many sociologists have used SI to study relationships. It is extremely useful in this context since it emphasizes meanings, the self, and the ways in which the self is constructed through interaction with others (Leeds-Hurwitz, 2006). Leeds-Hurwitz (2006) points out some key distinctions between social constructionism and symbolic interaction, she wrote “social constructionism is centrally concerned with how people make sense of the world, especially through language, and emphasizes the study of relationships; whereas symbolic interactionism’s central concern is making sense of the self and social roles” (p. 233).

Symbolic interactionism and social constructionism are metatheories that have been used to help explain a variety of communication phenomena. However, these theories are so broad that it is difficult to test these theories in any meaningful way. While they help us to understand how meaning might be conceived, they do not help us to understand the salience of meaning
making in relational communication, nor provide us with information about how relationships might be affected by variations in the processes involved in constructing realities.

Dyadic power theory (Dunbar, 2004) and Necessary Convergence Communication Theory (Miller-Day, 2004), however, are mid-range communication theories aimed at helping to explain the influence of relational power on the interpretation of meaning in interaction routines. These mid-range theories address meaning-making in interaction, as do the metatheories, but these theories specifically focus on meaning construction and relational power; explaining how meaning can be influenced by the power dynamics in a relationship. These theories are aimed at providing a deeper understanding of how this power can influence the construction of meaning during symbolic interaction within a close personal relationship.

Mid-range Communication Theories

Dyadic power theory. Dyadic power theory was originally developed to explain power in marital relationships (Rollins & Bahr, 1976). Recently, Dunbar (2004) has reconceptualized this theory to explain power in close personal relationships. In this reconceptualization, interaction is the center of this theory. It is through interaction that power is constructed, maintained, and understood. When considering power within a relationship, it is necessary to consider potential sources of power (e.g., authority, societal norms, and resources) as well as the relational history. This theory also links a person’s perceptions of his/her own power with being satisfied; such that people who perceive that they have some power within the relationship tend to be more satisfied than people who perceive a large imbalance in power. Dunbar (2004) argued that dyadic power theory is a new approach to understanding power in relationships that focuses on the interaction between relational partners.
Dunbar and Burgoon (2005) tested this theory arguing that power is latent within relationships, while dominance is manifest. Dominance is a dynamic state that can change throughout a relationship depending on the people involved and the context of the situation. These authors found a linear relationship between power and dominance, partners who perceived themselves as less powerful also tended to be less dominant in interactions. They concluded that it is necessary to consider relational history when trying to understand power and dominance because relational partners use this information when interpreting these concepts.

While dyadic power theory can help to inform a discussion of power and relationships, it still does not address imbalances in the co-construction of knowledge that might occur in dominant-submissive relational contexts. If one partner is perceived to be dominant and the other submissive, then there may be imbalances inherent in the process of “co” constructing meaning. Miller-Day’s (2004) Necessary Convergence Communication Theory (NCC) addresses both interpersonal influence and the interpretation of meaning in relational contexts. The current study is designed allow for an application of this theory in interpersonal communication research. Ultimately, this theory has promise for helping scholars understand ways in which interpersonal power might impact the meaning construction processes, providing novel information on power and dominance in relationships with potential implications for clinical practice (by helping to identify potentially unhealthy communication patterns in relationships).

Necessary Convergence Communication Theory

Necessary Convergence Communication Theory\(^2\) (Miller-Day, 2004) is a relational communication theory focused on explaining how relational power can influence the

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\(^2\) Necessary convergence communication theory was initially referred to as Necessary convergence of meaning theory in Miller-Day (2004). The name of the theory was recently revised in Miller-Day (under review).
interpretation of meaning in interaction routines. It is a grounded theory that emerged from research examining family relationships (Miller-Day, 2004). The interaction routine specific to this theory is called convergence communication. Convergence communication has three dimensions: equilibrium, interpersonal deference, and motivation (Miller-Day, 2004).

Equilibrium refers to the equality of distribution, but in relationships involving convergence communication there is disequilibrium. In the context of a relationship, this means that there is not equal power in determining meaning in interpersonal interaction. This leads to a perceived necessity for interpersonal deference. This refers to the idea that one person in the relationship (in Miller-Day’s (2004) data it was the lower-status individual) affords their partner’s meaning more significance. The last dimension is motivation. The partner who participates in convergence communication often perceives the convergence as a necessary condition for maintaining the relationship or maintaining relationship satisfaction.

The theory itself seeks to explain how “meanings can be hijacked” in interpersonal interactions (Miller-Day, 2004, p. 210) and how chronic deference to others’ construction of meaning in interactions, at the expense of one’s own, may lead to learned helplessness or poor differentiation of self, which, in turn, may contribute to internalizing disorders such as depression (see Figure 1). NCC theory suggests that chronic participation in convergence communication may lead to negative outcomes for submissive relational partners, specifically for internalizing disorders. This is especially true when convergence communication is chronic and extended over time. In this case the submissive partner may have a difficult time differentiating from the more dominant partner and/or feeling efficacious to make personal choices- which can potentially lead to an increased risk for developing internalizing disorders.
Central to the theory of Necessary Convergence Communication is the construct of convergence communication. Convergence communication can be defined as “an interaction routine where submissive partners feel compelled to interpret the world around them in ways consistent with dominant partners” (Miller-Day, under review, p. 13) This construct is assumed to be comprised of three dimensions: disequilibrium, interpersonal deference, and motivation (Miller-Day, 2004). Disequilibrium refers to the inequality of participant participation in and contribution to meaning in the interaction. In relationships where convergence communication occurs, there is unequal power to determine meaning. The more dominance partner has control of the relational resources and has more control in the conversations that take place within the relationship. Convergence communication requires disequilibrium rather than equilibrium in interactions- the more dominant partner will have more power than the submissive partner.

Interpersonal deference refers to the idea that the submissive partner defers to the dominant partner, affording the dominant partner with more interpersonal power to construct meaning in interactions. When this situation occurs (when one partner submits), the more

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3 Interpersonal deference was initially referred to as “weighted proportion of meaningfulness” in Miller-Day (2004). The name of the theory was recently revised in Miller-Day (under review).
dominant partner’s meaning is afforded more significance. The more submissive partner, then begins to believe that the dominant partner’s meanings are more significant than their own and, ultimately, the more submissive partner feels that s/he has to submit to the dominant partner in communicative interactions.

The last dimension is motivation. The theory suggests that convergence communication requires the submissive partner to perceive a relational motivation for interpersonal deference. This suggests that the submissive partner perceives compelling reasons for his or her submission. Miller-Day (2004) suggest that when a dominant partner has the power to manipulate resources within the relationship, it is this resource manipulation that provides motivation for deference to the dominant partner. Under these circumstances, the submissive partner perceives that there may be negative relational consequences for not submitting.

All three of these elements: disequilibrium, interpersonal deference, and motivation must be present for convergence communication to occur. However, there are still elements of this relationship that are unclear. At present, convergence communication is defined as being comprised of the three aforementioned elements. What is yet unknown is if these three elements occur simultaneously, or if the elements of motivation and disequilibrium might lead to interpersonal deference. It is also unknown if this needs to be taken into account when assessing risk, or if it is enough to determine that convergence is present. It is possible that convergence happens in stages (is a process) and could be detected before it reaches the degree and chronicity that make the people involved in the patter more susceptible to negative outcomes.

According to the theory, excessive participation in convergence communication over time may increase the risk for submissive partners to develop internalizing disorders. Another question that remains in regard to convergence is whether convergence is a state or a trait. The
classic distinction between states and traits is that states refer to the transient indicators of the present status of an individual where traits denote more stable long-term characteristic of an individual (Klein, 1979). Or there is the possibility that this theory can reference both. Most people, at one time or another, have felt that they converged, but would not describe this as a usual pattern for themselves. Likewise, most people have said that there are some relationships where they might tend to converge more than others, but do not feel any negative effects from this. But, since the theory focuses the potential negative consequences on those relationships where one member of the dyad constantly feels he or she has to converge, it is likely that this is specific to a relationship and that convergence becomes a habituated response. It is when convergence becomes a trait in a relationship that the less submissive partner may be at risk for internalizing disorders.

All of these questions are important to the study of convergence and are essential to being able to fully understand the model of the theory that has been presented. Yet, before the NCC theory in its entirety might be tested, it is necessary to first develop a valid and reliable measure of convergence communication. Convergence communication is the communication pattern at the center of this theory and needs to be more fully explored before the theory can be tested as a whole.

Purpose Statement

Although there is a need for theories that increase understanding of how the construction of meaning functions along with power in interpersonal communication, there is a lack of detailed theory and knowledge in this area; therefore, it is important for communication scholars to build on existing theory, such as NCC, to further understand meaning-making in interpersonal interactions, specifically, relational communication. I contend that this theory has promise for
helping scholars understand ways in which interpersonal power might impact the meaning construction processes, providing novel information on power and dominance in relationships with potential implications for clinical practice (by helping to identify potentially unhealthy communication patterns in relationships).

Therefore, this dissertation research is designed to (1) develop a valid and reliable measure of convergence communication, (2) test the following theoretical assumptions about convergence communication, and (3) provide a preliminary test of the NCC theoretical model represented in Figure 1.

There are several theoretical assumptions of convergence communication within the NCC as stated by Miller-Day (2004) and they include:

(1) Convergence communication is a measurable construct,

(2) The convergence communication construct will be comprised of three factors: disequilibrium, motivation, and interpersonal deference.

(3) With the ultimate intention of clinical diagnosis, it is unclear if convergence communication is best measured as a unidimensional construct called “convergence communication” or by three separate scales assessing disequilibrium, motivation, and interpersonal deference.

(4) That the following relationships exist among the factors comprising convergence communication:

   A. High levels of disequilibrium will be positively associated with interpersonal deference.

   B. High levels of motivation will be positively associated with interpersonal deference.
Before this theory might be tested, it is essential to develop a measure of convergence communication. Convergence communication is the communication pattern at the center of this theory and needs to be understood more fully before the theory can be tested as a whole. Therefore, the proposed dissertation research is designed to test the aforementioned assumptions and ultimately develop a valid and reliable measure of convergence communication.

Preliminary Study

Based on a review of the literature, field notes, and interview transcripts from the Miller-Day (2004) study, 40 items were developed for inclusion in the proposed Convergence Communication Scale (CCS). Verbatim quotes were translated into scale items whenever possible, with audiotapes of participant interviews used for the verification of any verbatim quote. These quotes were used whenever possible to enhance item validity (DeVellis, 2003). On the basis of independent reviews by two experts, 36 items were ultimately selected for inclusion in the scale. Three excluded items were omitted based on relevance and 1 due to its lack of clarity. Each of the 36 items was evaluated for readability, using the Flesch–Kincaid reading level which is reliable even with the entry of few words (Coh-Metrix & Coh-GIT, 2005).

In the Spring of 2006, a questionnaire consisting of two sections was administered to 369 college students, male (48.4%), female (51.6%); age (97% aged 20-23); ethnicity (84.1% White, 7% Asian, 3.3% Black, 3.1% Latino, 2% other). The first section of the questionnaire included items on demographic information including gender, age, and ethnicity and the second section focused on the communication convergence construct and two additional instruments to assess validity (DeVellis, 2003). The second section began with the following introduction:

“Sometimes in relationships things may feel out of balance, with one partner seeming to have more influence over the other partner in directing how they act, think, or the choices they make.”
For this next section, please think about one person in your life (such as a family member, friend, or a romantic partner) who tends to have influence in your life—possibly influencing your thoughts and behaviors. Please answer the following questions based on your interactions with this person.”

This introduction was followed by directions to identify “…the person’s relationship to you?” and were asked to chose from among the following relationship categories: mother, father, grandparent, sibling, opposite sex friend, same sex friend, romantic partner, or other. They were provided an open ended text-box to indicate the relationship if they checked the “other” category. Finally, each respondent was provided the following directions:

“For each of the following statements circle the number of the 5-point scale (1 = not at all, 5 = very much) that best describes how that statement applies to your interactions with your relational partner. There are no right or wrong answers, so don't spend a lot of time on any one item. We are looking for your overall impression regarding each statement. Be sure not to omit any items.”

The respondents were then instructed to “Think about your interpersonal interactions with the person you listed above.” All items were prefaced by the phrase: “In my interactions with him or her…” and all items were answered on a 5-point Likert scale (1 = not at all, 5 = very much).

To assess the underlying dimensions of convergence communication an exploratory factor analysis was performed, a principal components analysis with Varimax rotation produced six factors with eigen values greater than 1 that collectively accounted for 63.75% of the variance. When considering the results, seven items were dropped, four due to poor face validity and three were found to be assessing a different concept. Ultimately two factors disappeared
when the aforementioned items were deleted, leaving four factors accounting for 56.47% of the variance. Of the remaining 29 items, one was revised from the original question “I run the risk of losing this person’s love or affection if I do not defer to her or him” to “I run the risk of losing this person’s affection if I do not defer to her or him” in order to simplify and clarify the item. The four factors that remained were consistent with those postulated by NCC theory (equilibrium, motivation, and interpersonal deference), however the emergent factor structure reflected two different equilibrium dimensions: equilibrium participation (e.g., we both initiate conversations) and equilibrium consideration (e.g., This person asks for my opinion on things). Therefore, the final factor structure of this initial scale included: equilibrium participation, equilibrium consideration, motivation, and interpersonal deference. This factor structure supports the assertion by Miller-Day (2004) that the underlying dimensions of convergence communication are equilibrium, motivation, and interpersonal deference. However, the results of the initial exploratory factor analysis revealed two latent dimensions of equilibrium: equality in participation and equality in consideration.

A standardized alpha reliability coefficient of .93 was obtained for the entire scale (29 items). Alpha coefficients for the subscales included: Motivation (.94), interpersonal deference (.82), equilibrium-participation (.84), and equilibrium consideration (.83).

**Dissertation Hypotheses and Research Questions**

Based on the preliminary findings, this dissertation research further refined the convergence communication scale, assessing the scale for both validity and reliability, and tested the assumptions of NCC theory stated above. To accomplish this, I focused on refining the instrument, assessing construct validity, and testing the basic assumptions of NCC theory. The refinement of the instrument is important to ensure that the measure of convergence
communication is both complete and accurate so that it may be used in empirical research. Convergence communication is a new concept, therefore, checking construct validity is an important task as well. Since convergence communication is a similar phenomenon to other constructs such as dominant-submissive interaction in relationships, it should be positively associated with a measure of dominant-submissive interaction. Ultimately, testing the assumptions of convergence communication are important since this construct is central to the larger theoretical model. To accomplish these research objectives, the following hypotheses and research question are posed:

H1: Convergence communication will be comprised of three factors: equilibrium, interpersonal deference, and motivation.²

H2: High levels of disequilibrium will be positively associated with interpersonal deference.

H3: High levels of motivation will be positively associated with interpersonal deference.

H4: High levels of convergence communication will be positively associated with high levels of perceived interpersonal dominance in their partner.

R1: Is convergence communication best measured as a unidimensional construct or by three separate scales as a means to predict impeded differentiation of self and learned helplessness?

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Model Testing

² Despite the fact that the initial exploratory factor analysis revealed 4 factors, the initial theory conceptualized equilibrium as one dimension (factor). This dissertation will provide additional examination of this finding to assess if the indicator variables conform to what is expected on the basis of the pre-established theory.
In addition to developing a valid and reliable measure of convergence communication, this study also provides a preliminary test of the NCC theoretical model. The theoretical model of necessary convergence communication being tested is depicted in Figure 1. While this study will not focus on whole model testing, it will examine the variables that are assumed to be directly affected by convergence communication; that is, the dependent variables of differentiation of self and learned helplessness.

Variables in the NCC Theoretical Model

**Differentiation of Self.** Referring back to the theoretical model in Figure 1, impeded differentiation of self is one of the predicted outcomes of increased levels of convergence communication. According to Bowen’s family systems theory, differentiation is the ability to balance the intrapsychic and interpersonal dimensions of the self (Bowen, 1978). In this definition, intrapsychic dimension refers to the ability to distinguish emotions from cognitive processes and to correctly decide which is appropriate in any given situation. The interpersonal dimension refers to the ability to encompass both intimacy and autonomy in social relationships and to balance this dialectic appropriately (Tuason & Friedlander, 2000). Skowron (2005) defines differentiation of self as “the capacity of a system and its members to manage emotional reactivity, act thoughtfully under stress, and allow for both intimacy and autonomy in relationships” (p. 337). Both of these definitions emphasize the need for relational partners to be able manage the dialectics of autonomy-closeness and emotion-cognition.

Miller-Day (2004) theoretical model argues that disequilibrium combined with motivation and interpersonal deference (i.e., convergence communication) would predict poor differentiation of self for submissive partners. Therefore, because of the importance of differentiation to the theoretical model, in this dissertation I will test the predicted effects of
convergence communication on differentiation of self. Moreover, in an effort to understand the dimensionality of the convergence communication construct, I will examine if convergence communication as a uni-dimensional measure is a better predictor of impeded differentiation of self than are the separate factors that constitute convergence communication (i.e., motivation, deference, equilibrium).

Differentiation of self is an important psychological achievement for both parents and children in family relationships. For children differentiation is something that must occur for the child to have psychological well-being as an adult (Tuason & Friedlander, 2000). Now, this is not to say that differentiation is the only factor that influences well-being, many other factors such as family, peers, employment, and other societal factors contribute to this as well. Differentiation is a developmental process and is achieved by adulthood. Skowron (2005) found that mothers who were successfully differentiated from others had children that demonstrated higher verbal and math achievement scores and who were less aggressive.

Referring back to Figure 1, other constructs central to the theory of Necessary Convergence Communication are learned helplessness and internalizing disorders. Therefore, in this dissertation I will provide a preliminary examination of the theoretical model by addressing each of these phenomena in turn, posing two additional research questions to guide this inquiry.

**Learned Helplessness**

Learned helplessness, initially founded on the animal model of human depression, references a psychological condition where an animal has learned to believe that it is helpless; it believes that it has no control over its situation and that whatever it does is futile. As a result, the animal will stay passive in the face of an unpleasant, harmful or damaging situation, even when it does actually have the power to change its circumstances. In humans, learned helplessness
theory is the view that depression results from a perceived lack of control over the events in one's life, which may result from prior exposure to (actually or apparently) uncontrollable negative events (Maier & Seligman, 1976)

Martin Seligman and colleagues at the University of Pennsylvania were leading investigators of an animal model of human depression known as "learned helplessness." After the definitive studies (e.g., Seligman & Maier, 1967; Overmier & Seligman, 1967), there was a proliferation of research in learned helplessness in animals, as well as research that claimed to demonstrate learned helplessness in humans. In 1978, Seligman and colleagues denounced the animal model of learned helplessness and proposed a reformulated model of human depression (Abramson, Seligman, & Teasdale, 1978).

Seligman and colleagues drew their reformulated model not from the learned helplessness paradigm, but rather from that body of literature known as attribution theory (e.g., Jones, Kanouse, Kelley, Nisbett, Valins, & Weiner, 1972). Attribution theory is concerned with the way people attribute causality to events. For example, is the attribution internal (the person is responsible) or external (person not responsible)? Also, is the attribution global (event seen as typical of life in general) or specific?

The reformulated model stated that the basis of depression and helplessness deficits is a person's causal attribution to the self for bad events - an internal attribution ("It's my fault"). The model also predicts that depressed people will make more global attributions ("It's like this in every situation"). In addition, depressed people will make more stable attributions; i.e., things are seen as always staying the same. The attribution theory framework could not be farther from the old animal model. There is no reason to believe that the dogs blamed themselves for the
electric shocks. While they were certainly upset by their situation, it is highly doubtful that they felt responsible for it.

The reformulated model essentially proposes that depressives make internal attributions for bad events and are pessimistic about the future. This reformulated model is the same as cognitive models such as that of psychiatrist Aaron Beck (1967, 1974). While Abramson et al. (1978) acknowledged that Beck's perspective was compatible with their own, they did not seem to notice the fundamental identity of the two. Before 1978, Seligman and Beck were often contrasted (Blaney, 1977), because Beck hypothesized that part of the basis of human depression is internal attribution for bad events, whereas helplessness theory saw perceived lack of control as the basis. The only possible conceptual link between the reformulated model and the old model of human helplessness is that the depressed person's pessimism is due to the person's perception that events are uncontrollable. But pessimism is a complex human response and trait and not the automatic result of a person's experience with uncontrollable outcomes.

Subsequent studies with human subjects by Seligman and colleagues (e.g. Seligman et al., 1988) have produced considerable support for the prediction that depressives tend to make causal attributions that are internal, global, and stable. Despite some conflicting evidence (Patrick and Moore, 1986), it appears that there is support for the reformulated cognitive model developed by Beck and others, a model that was based on research concerning human depression.

Internalizing disorders: A Focus on Depression

According to the DSM-IV (American Psychiatric Association, 1994), there are two categories of internalizing disorders: anxiety disorders and mood disorders. In the mood disorder category, depression is one of the most common manifestations of this type of disorder.
Depression in both women and men is a debilitating internalizing disorder that disrupts relationships and daily lives and affects nearly 10 percent of the population. Despite the fact that depression is very common, only about 10 percent of cases receive clinical attention (Hammen, 1991). Once a person has a single episode of depression, the chances of recurrence are high. Men and women report similarities in degree of impairment, length of episodes, chronicity of the illness, time to first recurrence, or number of recurrences, but women are much more likely to report seven or eight symptoms of depression. And pure depression — in which the person has no other psychiatric illness — is more common in women. In cases when depression is secondary, following another illness, in women it often follows anxiety disorders, while in men it often follows substance abuse disorders or conduct disorder (Simonds, 2001). Women are more likely to develop substance abuse disorders after they become depressed and few men or women who have suicidal thoughts get treatment. In the United States, more women attempt suicide, but more men complete suicide attempts, partly because they tend to use more lethal methods such as guns rather than overdoses of medication (Kramlinger, 2001).

Symptoms of depression fall into four areas: affective, cognitive, behavioral, and somatic. Affective symptoms include depressed mood, loss of interest, and irritability. Cognitive symptoms include negative cognitions, concentration problems, difficulty making decision, and memory problems. Behavioral symptoms include social withdrawal and psychomotor retardation or agitation. Somatic symptoms include changes in sleep, appetite and energy (Simonds, 2001).

Depression can have serious consequences for individuals and the relationships that they are involved in. Because of the seriousness of this disorder and the potential consequences it can have for those affected by it- better understanding depression is an important goal to have. And
while exploring the link between depression and convergence communication will not help to eradicate depression, it is possible that if mental health practitioners know that convergence communication can cause depression, then being able to recognize this communication pattern could potentially aid in understanding this as a cause of depression which could lead to more effective treatment for people in these relationships.

RQ2: Can necessary convergence communication predict depression when controlling for differentiation of self?

RQ3: Can necessary convergence communication predict depression when controlling for learned helplessness?

This chapter provided an introduction to meta- and mid-range theories of meaning making in relationships. Moreover, it has provided a review of the theory that provides the basis for this dissertation research—Necessary Convergence Communication. It is the basic tenets of this theory that will be tested in this study. The next chapter will discuss the methods for conducting this research.
Chapter Three: Methods

To accomplish the goals of this research several different steps I took several steps. The first step included refinement of the existing CCS instrument and the second step includes administration of the instrument in order to: (1) assess the construct validity of the CCS instrument, (2) confirm the factor structure of the scale, (3) assess if convergence communication is best measured as a unidimensional construct (using one single scale) or by its different dimensions (using its subscales independently) as a predictor for impeded differentiation of self and learned helplessness, and finally to (4) conduct a preliminary test of the NCC theoretical model.

Step One: Scale Development and Refinement

To refine the existing instrument, I focused on three areas: a) changing the valence of some of the equilibrium items, b) adding additional items that focus on convergence and shared meaning, and c) changing the initial directions for the scale. In the initial scale testing, all of the items that assessed equilibrium were reverse coded, and these were the only reverse coded items on the scale. Since convergence communication is concerned with disequilibrium within the relationship, it made sense that these items were negatively worded and then reverse coded, however, since all of the equilibrium items were negative there could have been a bias to not answer honestly. In order to assess this, some of the equilibrium items were re-worded to be more positively valenced to see if there this altered the factor structure of equilibrium. Specifically, four of the eight items that assessed equilibrium were re-worded in a way to reflect disequilibrium.
In addition to rewording some of the existing items, several more items were added to assess interpersonal deference. In the initial scale testing there were only 6 items that focused specifically on interpersonal deference and, since this is such an important concept in the measurement of convergence communication, I added thirteen additional items to try to increase the number of items that are accurately reflecting this concept in the scale. In addition to an extensive review of relevant literature, content analysis procedures (Krippendorf, 2004) were used to evaluate observational and interview data from an earlier study of dominant-submissive relationships conducted by Miller-Day (2004) in her original work. The primary analysis documents included individual interview transcripts, joint interview transcripts, and detailed field notes including researcher notes and the direct transcription of dialogue between relational partners that had been captured during in-situ conversations. Analyses of the documents were conducted to identify comments, dialogue, examples or illustrations of interpersonal deference, motivation, or disequilibrium. After completing the analyses, the authors generated scale items using the study participants own words whenever possible to enhance item validity (DeVellis, 2003). Audiotapes of interviews were used to verify specific quotes, which were then translated into scale items. These added items were items that were not initially part of the original CCS scale.

Finally, when responding to the questionnaire items, it was necessary to ensure that respondents focused on a relational partner who was perceived as dominant in their relationship. So, in keeping with the initial scale development study, respondents were provided with the following directions:

“Sometimes in relationships things may feel out of balance, with one partner seeming to have more influence over the other partner in directing how they act, think, or the choices they
make. For this next section, please think about one person in your life (such as a family member, friend, or a romantic partner) who tends to have influence in your life—possibly influencing your thoughts and behaviors. Please answer the following questions based on your interactions with this person.”

Step Two: Data Collection and Analysis

Sample

The sample (N = 373) is college students currently enrolled at The Pennsylvania State University. These students were enrolled in the basic communication course and received course credit for completing the survey. Participants for the survey were recruited through the CAS 100A subject pool following standard procedures for the use of that pool. Those 100A students who preferred not to take part in this research were able to complete an alternative assignment as provided through the standard subject pool procedures. Each student registered for this course must complete a research participation requirement for 2% of their course grade. This study was one option to fulfill this requirement. Students were assigned to a research project, received an email with a link to the online study along with instructions for the completion of the survey.

The sample consisted of 373 respondents: n = 178 male (47.7%), n = 195 female (52.3%). The age range of the subjects is 18-38 (M = 20.05, SD = 1.97). Year in school broke down as: Freshman n = 75 (20.1%), Sophomore- n= 155 (41.6%), Junior n = 91 (24.4%), Senior n = 47 (12.6%), Other n = 5 (1.3%). While there was no where directly for participants to indicate why they chose other, it was most likely students who were not in one of these categories (e.g., graduate students), or students who were unsure which category they belonged to. The ethnicity of the sample is: African American/Black n = 10 (2.7%), Asian n = 19 (5.1%), Hispanic n = 18 (4.8%), Native American n = 11 (2.9%), Multiracial n = 11 (2.9%),
White/Caucasian \( n = 303 \) (81.2\%). Type of relationship reported on by the participant included: Mother \( n = 105 \) (28.2\%), Father \( n = 77 \) (20.6\%), Opposite sex friend \( n = 38 \) (10.2\%), Same sex friend \( n = 48 \) (12.9\%), Grandparent \( n = 2 \) (.5\%), Romantic partner \( n = 69 \) (18.5\%), Sibling \( n = 24 \) (6.4\%), Other \( n = 10 \) (2.7\%) (examples of “other” relationships were ex-girlfriend and aunt).

**Procedures**

Data were collected in the Spring of 2007. Students completed an online survey located on the Survey Monkey website; a website designed to help design and execute survey research. The survey was comprised of two sections—demographic information and questions about communicating in dominant-submissive relationships (see Appendix A).

When students accessed the website, they were first directed to a consent form that they completed before proceeding (see Appendix A). If they agreed to participate, they were then directed to the survey. After answering items in the demographic sections, they were asked to complete the eight measures detailed below, which were displayed in random order to reduce any order effects.

**Measures**

Each of the employed measures are detailed in the following section. Demographic information was collected to be able to assess the sample and allow for the possibility of comparisons among different groups. The Behavior-Based Dominance Scale, The Physical Aggression Scale, and the Personal Report of Communication Apprehension (PRCA-24) were used to assess construct validity (specifically, providing a better understanding of what this construct is and what it is not) for convergence communication. The remaining measures were included for model testing and included the Convergence Communication Scale (CCS), Beck’s
Depression Inventory (BDI-II), Psychiatric Symptom Frequency Scale (PSF), the Revised Differentiation of Self Inventory (DSI-R), and the Learned Helplessness Scale.

**Demographic information.** Demographic information, such as age, sex, and ethnicity was collected from participants. This data was collected as a way to compare participants and to determine if any patterns exist among people involved in convergence communication. Participants also identified the relationship type of their relational partner (e.g., mother, father). This information allowed for comparisons across relationship types.

**Convergence communication.** Based on the preliminary scale development, the original convergence communication scale (CCS) consisted of 29 items. Theoretically, the scale represented the following underlying factors: Motivation (items 1, 2, 6, 7, 15, 16, 17, 18, 19, 20, 21, 22, 23, 28, 29); Interpersonal Deference (items 3, 4, 5, 10, 13, 14, 30, 31, 32, 33, 34, 35, 36, 37, 38); and Equilibrium (items 8, 9, 11, 12, 24, 25, 26, 27). Each item was designed to assess the degree to which the statement characterizes communicative interactions with the relational partner (e.g. “My partner insists I agree with him/her” and “My partner’s opinion is usually considered the ‘right’ one”) and is rated using a 5-point Likert scale ranging from 1 (“Not at all”) to 5 (“Very much”). The CCS was normed on university students and has demonstrated a reliability coefficient of .93.

As already discussed, I implemented several changes with this administration of the convergence communication scale. Specifically, the valence of 4 of the equilibrium items were changed from positively valenced to negatively valenced and 13 additional interpersonal deference items were added.

**Depression.** The Beck Depression Inventory-II (BDI-II; Beck, Steer, & Brown, 1996) is a 21-item self-report scale of depressive symptoms (including sad affect, apathy,
disappointment/guilt, and physical symptoms) as listed in the American Psychiatric Association's 
*Diagnostic and Statistical Manual of Mental Disorders* Fourth Edition (DSM-IV; 1994). A total score is computed by summing symptoms. BDI has been used for 35 years to identify and assess depressive symptoms, and has been reported to be highly reliable regardless of the population. It has a high coefficient alpha, (.80) its construct validity has been established, and was found to differentiate depressed from non-depressed patients. BDI-II was found to be effective for both outpatients (.92) and for college students (.93) (Beck, Steer, & Brown, 1996). The initial Cronbach’s alpha was .89.

**Depression and Anxiety.** The psychiatric symptom frequency (PSF) scale is an 18-item instrument designed to assess symptoms of anxiety and depression experienced over the past year in the general population (Lindelow, Hardy, & Rodgers, 1997). The items are assessed on a 5-point Likert scale ranging from 1 (“never”) to 5 (“always”) and ask the participant to rate how often s/he has experienced a particular symptom over the past year (e.g., “have you been in low spirits or felt miserable?”). The reliability of the PSF using Cronbach’s alpha was .88.

**Differentiation of Self.** The Revised Differentiation of Self Inventory (DSI-R; Skowron & Schmidt, 2003) is a 46-item instrument designed to assess interpersonal and intrapsychic dimensions of differentiation with others. The items are assessed using a 6-point Likert scale ranging from 1 (“not at all true of me”) to 5 (“very true of me”) (e.g., “When my spouse/partner criticizes me, it bothers me for days”; “I’m overly sensitive to criticism.”) The DSI-R is composed of four subscales: Emotional reactivity, “I” position, Emotional cut-off, and Fusion with others. The internal reliability of the DSI-R has been established using Cronbach’s alpha coefficients. Internal consistency estimates using Cronbach’s alpha suggested high reliabilities for the DSI-R scales and each of the four subscales: DSI-R = .92; Emotional reactivity = .89; “I”
position = .81; Emotional cut-off = .84; and Fusion with others = .86 The DSI-R has been administered to both clinical and non-clinical samples of college students (Skowron & Friedlander, 1998; Skowron & Schmidt, 2003).

Learned Helplessness. Learned Helplessness was measured with a scale assessing how often a person engages in prototypically helpless behaviors (Peterson, 1993). This 11-item instrument asked how frequently, in the last month, a person had engaged in certain behaviors (e.g., “I didn’t stand up for myself”, “I let someone take advantage of me”). The items are assessed on a 5-point Likert scale ranging from 1 (“0 times this month”) to 5 (“more than 21 times this month”). Cronbach’s alpha for this scale was initially .89.

Measures of Construct Validity

Behavior-Based Dominance Scale. The Behavior-Based Dominance Scale allows participants to think of a focal person and answer a set of questions about the focal person’s dominant or submissive behavior (in the context of this study, participants answered these items on the same focal person they were thinking of when completing the CCS).

The behavior-based dominance scale developed by Burgoon, Johnson, and Koch (1998) was used to assess the convergent validity of the convergence communication scale. This scale is an excellent test for construct validity for convergence communication. Convergence communication takes place in dominant-submissive relationships. Therefore, relationships where convergence communication is present should also be relationships where one partner is dominant and one partner is submissive- exactly the traits assessed by this scale. Given that participants were directed to choose a focal person who they perceived was dominant in their relationship, it seems likely that a person rating themselves high in convergence communication will also rate the focal “other” as more dominant.
The behavior-based dominance scale is a 31-item scale created to assess the behavioral aspect of dominance and submission. Each item is designed to assess a person’s dominant or submissive behavioral tendencies (e.g., “This person has a natural talent for winning over others” and “This person is more of a follower than a leader”) and is rated using a 5-point Likert scale ranging from 1 (“Strongly Disagree”) to 5 (“Strongly Agree”). This scale is composed of five subscales; each listed with their standard score coefficient alpha reliabilities: (1) influence, .88; (2) conversational control and impulsivity, .79; (3) focus and poise, .78; (4) panache, .88; and (5) self-assurance, .73 (Burgoon, Johnson, & Koch, 1998). The overall Cronbach alpha coefficient for this scale was .93.

Physical Aggression. The Physical Aggression Scale seeks to find how likely it is that a person might engage in certain physically aggressive behavior. In the present study this scale was included to measure an externalizing behavior. The theory predicts effects on internalizing behavior; in contrast, however, I was interested in examining if high levels of convergence communication predicted an externalizing behavior such as physical aggression.

Physical Aggression was assessed using the Physical Aggression Scale (Buss & Perry, 1992). This 9-item instrument focuses on how frequently people engage in physical violence or aggression (e.g., “If somebody hits me, I hit back.”, “I have threatened people I know”). The items are assessed on a 5-point Likers scale ranging from 1(“extremely uncharacteristic of me”) to 5 (“extremely characteristic of me”). Reliability for this scale was tested using Chronbach’s alpha and was found to be .80.

Communication Apprehension. The PRCA-24 assesses how apprehensive a person is about speaking in a variety of contexts. This scale was included make sure that people who are
involved in convergence communication are actually deferring, rather than just being communicatively apprehensive and feeling afraid to speak up.

Communication apprehension was assessed using McCroskey’s (1993) 24-item instrument. The Personal Report of Communication Apprehension (PRCA-24) elicits an individual's personal feelings about communicating, and includes six items in each of four communication settings: (1) public speaking, (2) talking in meetings (meeting), (3) talking in group discussions (group) and (4) talking with another person (dyad). It uses a 5-point Likert scale, and allows a researcher to calculate five CA scores for any person, one for each of the four communication settings and one overall score. Cronbach’s alpha for the scale is .90.

Data Analysis

Construct and Content Validity. Before I tested the study hypotheses and research questions I examined the construct validity, in particular, convergent and discriminant validity of convergence communication. In order to assess construct validity I compared convergence communication to other constructs expected to be similar and one construct that should not be related to convergence communication. I also examined, using ANOVA, the difference between participants scoring high or low in convergence and the relationship that has with other constructs. Finally, I employed an exploratory factor analysis to examine the content validity of the convergence communication measure.

Hypotheses and Research Questions. In order to test the first hypothesis (that convergence communication will be comprised of three factors: equilibrium, interpersonal deference, and motivation), I conducted a confirmatory factor analysis (CFA) on all items of the convergence communication scale (CCS) using AMOS (statistical software). Confirmatory factor analysis allows the researcher to test and confirm a theory’s model (Floyd & Widaman,
which is what is needed to understand the item composition of the CCS. A CFA was employed in an attempt to see if the data gathered from each item in the scale fit with the proposed model of a 3 factor solution. “A model has good empirical fit if the CFI is .90 or above and the AASR is <.06. The factor loadings should generally be >.50, and path coefficients and explained variance ($R^2$) indicate the strength of the relationship between constructs” (Noar & Morokoff, 2002, p. 48). The model tested was that CCS would be comprised of three factors: motivation, disequilibrium, and interpersonal deference.

Hypotheses two (high levels of disequilibrium will be positively associated with interpersonal deference), three (high levels of motivation will be positively associated with interpersonal deference), and four (high levels of convergence communication will be positively associated with high levels of perceived interpersonal dominance in their partner) was tested by conducting descriptive statistics on the study data. To test the relationships among all study variables, correlations were performed. A Cronbach’s alpha coefficient was calculated for each variable including each anticipated subscale (e.g., motivation, interpersonal deference) as well as the scale as a whole (i.e., convergence communication scale). Using Pearson product moment correlation, hypothesis two was addressed by examining the association between disequilibrium and interpersonal deference and hypothesis three was addressed by examining the association between motivation and interpersonal deference.

Research question one asks: is convergence communication best measured as a uni-dimensional construct or by three separate scales as a means to predict impeded differentiations of self and learned helplessness? Ultimately, for applicability in predicting outcomes such as learned helplessness or impeded differentiation of self, it is important to understand if convergent communication should be treated as a uni-dimensional or multi-dimensional construct.
Conceptually, even if the CFA analysis on the convergence communication items revealed a clear factor structure, it is unclear if convergence communication is best measured as a uni-dimensional or as a multi-dimensional construct. To understand if the scale itself—as an average of these factors—or if the three separate factors are better predictors of differentiation of self and learned helplessness, four separate regression analyses were conducted for each dependent variable. The first set of analyses regressed each factor of the CCS individually on the outcome variables and the second analysis regressed CCS as a whole (the average score of all factors) on both impeded differentiation of self and learned helplessness. These regression analyses were useful to explore the research question by evaluating if convergence communication as a whole (unidimensional measure) is better predictor of impeded differentiation of self and learned helplessness than the subscales regressed separately on these outcomes.

Research questions two and three sought to discover if convergence communication could predict depression when controlling for differentiation of self and learned helplessness, respectively. Regression analyses were performed to analyze both of these questions. A regression of convergence communication predicting depression was first run controlling for the first dependent variable (differentiation of self) and then the second (learned helplessness).
Chapter Four:

Results

Construct and Content Validity

*Construct Validity.* In order to examine the construct validity of convergence communication, first I will discuss its relationship to other variables in the study (Table 1).

Table 1

<table>
<thead>
<tr>
<th>CCS Pearson Product Moment Correlations</th>
</tr>
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<tbody>
<tr>
<td>Depression</td>
</tr>
<tr>
<td>------------</td>
</tr>
<tr>
<td>Convergence Communication</td>
</tr>
</tbody>
</table>

** Correlation is significant at the 0.001 level (2-tailed).

Convergence communication is significantly correlated with all of the other variables included in this study. Some of these variables were expected to be correlated with this construct. For example, there should be a correlation between the participants responses to the CCS and their rating of that person’s dominance \((r = 0.283)\). There was also expected to be a relationship between convergence communication and the dependent variables: depression \((r = 0.345)\) and learned helplessness \((r = 0.346)\).

It was unknown what the relationship between convergence communication and physical aggression would be. These two variables were significantly correlated \((r = 0.178, p < 0.001)\). Likewise, the communication apprehension scale was included to insure that convergence is more than just an unwillingness to speak up. However, these two variables were significantly related \(r = 0.146, p < 0.001\). Further research will be required to discern the extent of the relationship between both of these sets of variables.
Moving beyond the convergence scale, Table 2 shows the completed correlation matrix among all of the variable is the study. Convergence communication highly correlated with the three subscales of motivation, interpersonal deference, and disequilibrium. Because the overall convergence score is comprised of these three subscales, this was expected. The only surprising correlation was that convergence communication had the lowest correlation (of the three subscales) with interpersonal deference, which had been discussed as a possible proxy measure of convergence.

However, just examining the correlation of the subscales, one significant note is that interpersonal deference was not significantly correlated with communication apprehension. This is a positive indicator that these two concepts are perceived differently. Another interesting finding is that differentiation of self is negatively related to all other studied variables. Therefore, differentiation of self could be a protective variable, further research should examine this relationship more closely.
<table>
<thead>
<tr>
<th></th>
<th>Motivation</th>
<th>Interpersonal Deference</th>
<th>Disequilib.</th>
<th>Dominance</th>
<th>Communication Apprehension</th>
<th>Aggression</th>
<th>Depression</th>
<th>Learned Helplessness</th>
<th>Diff. of Self</th>
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<td>.803**</td>
<td>.283**</td>
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<td>.345**</td>
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<td>.328**</td>
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<td>Aggression</td>
<td></td>
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<td></td>
<td>.240**</td>
<td>.213**</td>
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<tr>
<td>Depression</td>
<td></td>
<td></td>
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<td></td>
<td>.408**</td>
<td></td>
<td></td>
<td>-.310**</td>
</tr>
<tr>
<td>Learned Helplessness</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-.306**</td>
<td></td>
</tr>
</tbody>
</table>

** Correlation is significant at the 0.001 level (2-tailed), * Correlation is significant at the 0.05 level (2-tailed)
Content Validity. In order to examine the content validity of convergence communication an exploratory factor analysis was run to examine the new items added to assess interpersonal deference. To assess the underlying dimensions of convergence communication, a principal components analysis with Varimax rotation produced six factors with eigen-values greater than 1 that collectively accounted for 63.52% of the variance. When considering the new items, four items were dropped, three due to poor face validity and one was found to be assessing a different concept. Ultimately, two factors disappeared when the aforementioned items were deleted, leaving four factors accounting for 58.11% of the variance. The four factors (shown in Table 3) that remained were consistent with those postulated by NCC theory (equilibrium, motivation, and interpersonal deference), however the emergent factor in this study differed slightly from the preliminary study which separated equilibrium into two separate factors: equilibrium participation (e.g., We both initiate conversations) and equilibrium consideration (e.g., This person asks for my opinion on things). In this current data set, four of the equilibrium items were coded to assess disequilibrium, rather than all items assessing equilibrium. The exploratory factor analysis revealed that the construct of “equilibrium” still divided into two factors, however, the items assessing disequilibrium were grouped into one factor and those assessing equilibrium were grouped together in another factor. Due to the fact that the reworded disequilibrium items contained two items from each of the previous equilibrium categories (so that from each of the previous categories, two items were positively worded and two were negatively worded), and due to the fact that conceptually there appeared to truly not be a distinction—it was judged that equilibrium be treated as one single factor. This notion is also supported by the CFA that will be discussed later in this chapter. Therefore, the final factor
structure of this initial scale included: equilibrium, motivation, and interpersonal deference. This factor structure supports the assertion by Miller-Day (2004) that the underlying dimensions of convergence communication are equilibrium, motivation, and interpersonal deference.

Table 3
*Exploratory Factor Analysis Results*

<table>
<thead>
<tr>
<th></th>
<th>Motivation</th>
<th>Interpersonal Deference</th>
<th>Equilibrium 1</th>
<th>Equilibrium 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ccs1</td>
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<td></td>
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</tr>
<tr>
<td>Ccs2</td>
<td>.595</td>
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<td>Ccs3</td>
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<td>.622</td>
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<tr>
<td>Ccs4</td>
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<td></td>
</tr>
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<td>.544</td>
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<td>Ccs8</td>
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<td>Ccs10</td>
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<td>.636</td>
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<td>Ccs15</td>
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<td></td>
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<td>.880</td>
</tr>
<tr>
<td>Ccs28</td>
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<td></td>
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</tr>
<tr>
<td>Ccs31</td>
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<td>.852</td>
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<td></td>
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<td>Ccs32</td>
<td></td>
<td>.806</td>
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<td></td>
</tr>
<tr>
<td>Ccs33</td>
<td></td>
<td>.834</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Principal Components Analysis: Varimax with Kaiser Normalization

*Inter-item Reliability.* The original alpha reliability coefficients of .93 were obtained for the entire scale (29 items). Alpha coefficients for the subscales included: Motivation (.94), interpersonal deference (.82), equilibrium-participation (.84), and equilibrium consideration (.83).

In the present data set, responses within each subscale were averaged resulting in measures of equilibrium ($\alpha = .81, M = 1.95, SD = 1.08$), interpersonal deference ($\alpha = .92, M = 2.31, SD = 1.10$), motivation ($\alpha = .94, M = 1.97, SD = 1.12$), and necessary convergence (all scale items combined) ($\alpha = .95, M = 2.10, SD = 1.10$).

*General Study Findings*

This study yielded some interesting findings surrounding both sex and relationship type. Males and females differed significantly on four of the dependent variables and one of the subscales of convergence (see Table 4). Specifically, males were significantly higher than females in differentiation of self and aggression; whereas females were higher than males in communication apprehension, depression, and in disequilibrium (meaning that females were more likely than men to perceive or feel disequilibrium in their chosen relationship). But even though men and women differed on the one subscale of disequilibrium, there were no significant differences overall between males and females in convergence.
### Table 4

**Significant sex differences**

<table>
<thead>
<tr>
<th></th>
<th>Males</th>
<th>Females</th>
<th>t-test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Differentiation of Self</td>
<td>$M = 3.10$</td>
<td>$M = 2.87$</td>
<td>$t(366) = 3.42^{**}$</td>
</tr>
<tr>
<td></td>
<td>$SD = .59$</td>
<td>$SD = .65$</td>
<td></td>
</tr>
<tr>
<td>Communication</td>
<td>$M = 2.64$</td>
<td>$M = 2.80$</td>
<td>$t(365) = -1.99^*$</td>
</tr>
<tr>
<td></td>
<td>$SD = .74$</td>
<td>$SD = .77$</td>
<td></td>
</tr>
<tr>
<td>Aggression</td>
<td>$M = 2.44$</td>
<td>$M = 2.11$</td>
<td>$t(364) = 4.58^{**}$</td>
</tr>
<tr>
<td></td>
<td>$SD = .71$</td>
<td>$SD = .69$</td>
<td></td>
</tr>
<tr>
<td>Depression</td>
<td>$M = 1.30$</td>
<td>$M = 1.44$</td>
<td>$t(365) = -3.47^{**}$</td>
</tr>
<tr>
<td></td>
<td>$SD = .31$</td>
<td>$SD = .43$</td>
<td></td>
</tr>
<tr>
<td>Disequilibrium</td>
<td>$M = 2.04$</td>
<td>$M = 1.88$</td>
<td>$t(371) = 2.17^*$</td>
</tr>
<tr>
<td></td>
<td>$SD = .65$</td>
<td>$SD = .76$</td>
<td></td>
</tr>
</tbody>
</table>

** p < .001, *p<.05

In addition to testing for sex differences, I also examined differentiated among the relationship types that people chose to report on. As reported in the last chapter, the breakdown of relationships discussed are as follows: Mother $n = 105$ (28.2%), Father $n = 77$ (20.6%), Grandparent $n = 2$ (.5%), Sibling $n = 24$ (6.4%), Opposite sex friend $n = 38$ (10.2%), Same sex friend $n = 48$ (12.9%), Romantic partner $n = 69$ (18.5%), Other $n = 10$ (2.7%) (examples of “other” relationships were ex-girlfriend and aunt).

I tested for two major differences: a) first I divided the relationships into family (mother, father, grandparent, sibling) and nonfamily (opposite sex friend, same sex friend, romantic partner), b) I also made some comparisons of those who chose to respond about a parent (about 48.8%) versus all other responses. Table 5 shows some of the major differences of family versus nonfamily relationships.
Table 5

*Significant relationship type differences*

<table>
<thead>
<tr>
<th></th>
<th>Family</th>
<th>Nonfamily</th>
<th>t-test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Differentiation of Self</td>
<td>$M = 2.92$</td>
<td>$M = 3.05$</td>
<td>$t(356) = -1.98^*$</td>
</tr>
<tr>
<td></td>
<td>$SD = .65$</td>
<td>$SD = .60$</td>
<td></td>
</tr>
<tr>
<td>Dominance/Submission</td>
<td>$M = 3.09$</td>
<td>$M = 2.99$</td>
<td>$t(358) = 4.33^{**}$</td>
</tr>
<tr>
<td></td>
<td>$SD = .19$</td>
<td>$SD = .22$</td>
<td></td>
</tr>
<tr>
<td>Motivation</td>
<td>$M = 2.02$</td>
<td>$M = 1.85$</td>
<td>$t(361) = 2.09^*$</td>
</tr>
<tr>
<td></td>
<td>$SD = .84$</td>
<td>$SD = .77$</td>
<td></td>
</tr>
<tr>
<td>Interpersonal Deference</td>
<td>$M = 2.45$</td>
<td>$M = 2.11$</td>
<td>$t(361) = 4.37^{**}$</td>
</tr>
<tr>
<td></td>
<td>$SD = .75$</td>
<td>$SD = .72$</td>
<td></td>
</tr>
<tr>
<td>Convergence</td>
<td>$M = 2.14$</td>
<td>$M = 1.97$</td>
<td>$t(331) = 2.34^*$</td>
</tr>
<tr>
<td></td>
<td>$SD = .63$</td>
<td>$SD = .65$</td>
<td></td>
</tr>
</tbody>
</table>

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

It is noteworthy that people who chose to answer about a family member were higher in convergence, interpersonal deference, motivation, and dominance/submission; while participants who answered about a nonfamily member were higher in differentiation of self. It is possible that there are differences in convergence across different relationships, or possibly that convergence is more likely to occur within family relationships. A chi-square test revealed that more than half of participants (54.7%) who rated themselves as high in convergence were reporting on a parent (mother = 30.6%, father = 24.7%). It was significantly more likely that someone who rated themselves as high in convergence was reporting about a family member (versus nonfamily), $\chi^2 (7) = 16.09, p < .05$. For those participants who rated themselves as low in convergence, still almost half were reporting on a parent (46.7%; mother = 28.3%, father = 18.4%).

There were also some distinguishing features when I further dissected relationship type to examine parents separate from all other relationships. Table 6 shows some of the major
differences across variables when parents were compared with other examined relationships. Interestingly, but not surprisingly, the variables that differed for parents were the same variables that differed for family versus nonfamily relationships. It’s not surprising since parents were the major family relationships people chose to report about. Since that is true it is not possible to distinguish, in this data, if parents will differ from other family relationships. However, there is at least some support for the notion that certain aspects of convergence (motivation and interpersonal deference) may be more salient for family relationships. Additional research is needed to determine if convergence is the same phenomenon across relationship type.

Table 6  
**Relationship Differences- Parents Compared with All Other Relationships**

<table>
<thead>
<tr>
<th></th>
<th>Parent</th>
<th>Nonparent</th>
<th>t-test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Differentiation of Self</td>
<td>$M = 2.91$</td>
<td>$M = 3.05$</td>
<td>$t(366) = 2.04^*$</td>
</tr>
<tr>
<td></td>
<td>$SD = .65$</td>
<td>$SD = .62$</td>
<td></td>
</tr>
<tr>
<td>Dominance/Submission</td>
<td>$M = 3.09$</td>
<td>$M = 3.01$</td>
<td>$t(368) = 3.71^{**}$</td>
</tr>
<tr>
<td></td>
<td>$SD = .19$</td>
<td>$SD = .22$</td>
<td></td>
</tr>
<tr>
<td>Motivation</td>
<td>$M = 2.05$</td>
<td>$M = 1.88$</td>
<td>$t(371) = 1.95^*$</td>
</tr>
<tr>
<td></td>
<td>$SD = .86$</td>
<td>$SD = .79$</td>
<td></td>
</tr>
<tr>
<td>Interpersonal Deference</td>
<td>$M = 2.48$</td>
<td>$M = 2.16$</td>
<td>$t(371) = -4.17^{**}$</td>
</tr>
<tr>
<td></td>
<td>$SD = .76$</td>
<td>$SD = .71$</td>
<td></td>
</tr>
<tr>
<td>Convergence</td>
<td>$M = 2.15$</td>
<td>$M = 2.01$</td>
<td>$t(371) = 2.13^*$</td>
</tr>
<tr>
<td></td>
<td>$SD = .65$</td>
<td>$SD = .65$</td>
<td></td>
</tr>
</tbody>
</table>

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

**Hypothesis One**  
A confirmatory factor analysis was conducted to test if necessary convergence was comprised of the three factors of disequilibrium, interpersonal deference, and motivation, as indicated by the exploratory factor analysis. The results revealed that these three factors with
one overarching construct were a good fit for this construct. In particular, the adjusted $\chi^2$ value of 3.58 (df = 662) $p < .05$, suggested that the differences were nonsignificant. As a complimentary measure, and additional fit measures [i.e., RMSEA (.083)] also indicated the adequacy of the overall fit. In sum, the structure of the NCC model was confirmed by the CFA performed on this data. These tests indicate that the overarching construct of convergence communication breaks down into the three factors originally proposed in the theory. To further test this idea, an additional model was tested. In this model the variables were all grouped together rather than keeping the three subscales. This model was not found to be a good fit for the data. The adjusted $\chi^2$ value is 5.58 (df = 665) $p > .10$, and none of the goodness of fit indices were significant. This suggests that even considering convergence as a unifying idea, it is important to keep in mind the three subscales.

*Hypothesis Two*

Hypothesis two predicted that high levels of disequilibrium would be positively associated with interpersonal deference. Consistent with hypothesis two, high levels of disequilibrium were moderately, but significantly associated with interpersonal deference, $r = .352, p < .001$. This suggests that when there is perceived disequilibrium in the interactions between these individuals, there seems to be significantly more interpersonal deference by the submissive interactant.

*Hypothesis Three*

Hypothesis three predicted that high levels of motivation would be positively associated with interpersonal deference. Consistent with hypothesis three, high levels of motivation were significantly associated with interpersonal deference, $r = .653, p < .001$.

*Hypothesis Four*
Hypothesis four predicted that high levels of convergence communication would be positively associated with high levels of perceived interpersonal dominance in their partner. Consistent with hypothesis four, high levels of convergence communication were significantly associated with high levels of perceived dominance in their partner, \( r = .283, p < .001 \).

**Research Question One**

The first research question asked if convergence communication was best measured as a unidimensional construct or by three separate scales as a means to predict impeded differentiation of self and learned helplessness (Table 2). In order to assess the proportion of variability explained regression analysis was employed, both on the total scale and each individual scale, to predict differentiation of self. All were found to be significant predictors.

Total scale on differentiation of self: \( F (1, 366) = 74.97, p < .001 \), Adjusted \( R^2 = .17 \). Motivation on differentiation of self: \( F (1, 366) = 60.70, p < .001 \), Adjusted \( R^2 = .14 \). Interpersonal deference on differentiation of self: \( F (1, 366) = 118.34, p < .001 \), Adjusted \( R^2 = .24 \). Disequilibrium on differentiation of self: \( F (1, 366) = 10.43, p < .01 \), Adjusted \( R^2 = .03 \).

Also employing regression analysis, both the total scale, and each individual scale were used to predict learned helplessness. All were found to be significant predictors. Total scale on learned helplessness: \( F (1, 358) = 48.58, p < .001 \), Adjusted \( R^2 = .12 \). Motivation on learned helplessness: \( F (1, 358) = 43.09, p < .001 \), Adjusted \( R^2 = .11 \). Interpersonal deference on learned helplessness: \( F (1, 358) = 30.89, p < .001 \), Adjusted \( R^2 = .08 \). Disequilibrium on learned helplessness: \( F (1, 358) = 27.02, p < .001 \), Adjusted \( R^2 = .07 \).

<table>
<thead>
<tr>
<th>Table 7</th>
<th>Regression Analysis of Dependent Variables on CCS scale and subscales</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>( F )</td>
</tr>
<tr>
<td>Differentiation of Self</td>
<td></td>
</tr>
</tbody>
</table>
There was really no difference in these tests, except for the fact that the subscale of disequilibrium was not as strong a predictor as the other two subscales. However, referring back to the CFA performed to test hypothesis one, the CFA with one overarching construct over the subscales was a better fit than the model with all variables separately under one idea. A statistical comparison of the two models yielded a $\chi^2 (3) = 362.6, p < .001$. Since this is the case, and since researchers using this theory are likely to be more interested in research on necessary convergence, rather than its components, it seems that using one measure is an adequate way to measure necessary convergence. The only potential drawback to using one overall measure is masking some of the relationships between variables (e.g., not seeing how disequilibrium might specifically relate to another variable in the research).

**Research Questions Two**

The second research question was to explore if necessary convergence communication could predict depression when controlling for differentiation of self. Convergence communication is significantly correlated with both depression ($r = .345, p < .001$) and learned helplessness ($r = .346, p < .001$). A partial correlation was employed to explore if convergence would predict depression while controlling for differentiation of self. Convergence was still
significantly correlated with depression, $r = .252$, $p < .001$, although the relationship was not as strong.

**Research Question Three**

The final research question was to explore if necessary convergence communication could predict depression when controlling for learned helplessness. The partial correlation between convergence and depression dropped from $r = .345$, $p < .001$ to $r = .226$, $p < .001$ when controlling for learned helplessness, although it was still significant.

For both of these research questions, one additional test was performed. Participants reporting on a parent (mother or father) were separated from participants reporting on any other relationship. Regression models were run for each to discover if convergence, learned helplessness and differentiation of self were better predictors of depression for those who answered regarding a parent or those who answered for another relationship. Both models were found to be significant: Parent: $F(3, 171) = 18.67$, $p < .01$, Adjusted $R^2 = .23$, and Nonparent: $F(3,180) = 15.91$, $p < .01$, Adjusted $R^2 = .20$. Further research is needed to determine how this phenomenon will vary with relationship type.

| Table 8 |
|-----------------|------------------------|
| **Regression Analysis of Depression for those Reporting on a Parent or Nonparent** |
| **Parent** | **Model**   |
| Convergence    | $\beta = .218^*$     | $F(3,171) = 18.67$, $p < .01$ |
| Learned Helplessness | $\beta = .278^{**}$ | Adjusted $R^2 = .23$ |
| Differentiation of Self | $\beta = -.128$ |
| **Nonparent** | **Model**   |
| Convergence    | $\beta = .125$     | $F(3,180) = 15.91$, $p < .01$ |
| Learned Helplessness | $\beta = .325^{**}$ | Adjusted $R^2 = .20$ |
| Differentiation of Self | $\beta = -.159^*$ |

$^{**}p < .05$, $^{***}p<.01$
Chapter Five:
Discussion

The theory of necessary convergence communication is a mid-range theory focused on the negotiation of meaning within relationships. This theory begins to fill some of the gaps left by larger meta-theories, such as social constructionism and symbolic interactionism, by focusing on the outcomes of the specific interaction that takes place in between individuals in a relationship. This began as a grounded theory and the purpose of this research was twofold: first, to examine the measurement of convergence communication (the communication pattern at the center of the necessary convergence of communication theory); and second, to do some initial testing between this construct and some of the other variables in the model.

Miller-Day’s (2004) grounded theory evolved out of research about communication among grandmothers, mothers, and adult daughters. This initial research led to the necessary convergence communication theory linking dominant-submissive interaction to potentially harmful outcomes (such as suicide). This theory explains how this communication pattern, over time, could be harmful to the more submissive person in a close personal relationship. Some preliminary research had been done on the measurement of this phenomenon, but refinement of the instrument was needed before the next step, whole model testing, could begin. This research is the bridge between those two parts of the research process.

This research began with the measurement of convergence communication. I reexamined the three parts of the central tenet of the theory: motivation, interpersonal deference, and disequilibrium. I added additional items to measure interpersonal deference (previously the subscale that had the fewest items assessing it) and reworded some of the questions assessing disequilibrium in an attempt to clarify that particular part of convergence communication. I
wanted to ensure that the measurement was sound and adequately capturing the phenomenon before we moved to the model testing phase of research. It was also unclear if convergence communication was best measured as a uni-dimensional concept or if it the three subscales measured separately would have better predictive validity within the theoretical model.

After I felt sure that the measurement of convergence communication was complete and accurate, I then proceeded to test the theoretical model. Specifically, I focused on the variables of differentiation of self, learned helplessness, and depression (as an example of an internalizing disorder). In the theoretical model, differentiation of self and learned helplessness potentially mediate the effects of convergence communication on depression. In the next section I will talk about the findings of the present study, then go on to discuss the implications of this work and directions for research in the future.

*Discussion of Scale*

The measure of convergence communication was enhanced in this study. The original scale was 29 items, but in the currently revised convergence communication scale there are 38 items. The additional items contributed significantly to the reliability of the measure as a whole and of the interpersonal deference dimension, specifically. Conceptually, the measure is stronger now, with higher inter-item reliability than in previous research using this scale (See Revised Convergence Communication Scale in Appendix B).

As expected, there was some support that convergence communication was similar to other measures of dominance, but it is remains unclear how convergence communication is related to communication apprehension. It was expected that convergence communication would discriminate from communication apprehension. Further research is needed to distinguish these variables from one another.
Additional research is also needed to examine the relationship between convergence and physical aggression (as an externalizing factor). Since externalizing disorders were not in the original model, it was unclear exactly what relationship to expect. Aggression was included in this study as an example of a potential problem behavior that might occur (another, for example, could be drug use). Initially, it seems that there could be a link between convergence communication and externalizing behaviors, but further research is needed to determine the strength of these connections.

Hypotheses

All four hypotheses were supported and continue to add to our knowledge of the construct of necessary convergence. The first hypothesis confirmed that convergence communication is comprised of the three factors of: equilibrium, interpersonal deference, and motivation. A confirmatory factor analysis confirmed that these three factors make up an overarching construct that can be measured and studied as one idea. In future research, unless a researcher was specifically interested in one of the three underlying dimensions, it is a good fit to measure the construct as a whole.

The second and third hypotheses assessed the relationships among the underlying dimensions of necessary convergence. There was a significant positive relationship between high levels of both disequilibrium and motivation and interpersonal deference. Therefore, within the larger construct of necessary convergence communication, relationships that are unequal and partners who are highly motivated will both be more likely to defer to their partner. Motivation refers to the need that the more submissive partners feel to submit. These partners feel that this deference is necessary to successfully remain in the relationship.

The fourth hypothesis predicted that high levels of convergence communication would be
positively associated with high levels of partner’s interpersonal dominance. Since perceived dominance of the other is central to convergence communication, it follows that people who experience higher levels of convergence communication are likely to view their partner as more dominant. As predicted, this was supported. Participants who were more likely to converge were also more likely to perceive a high level of dominance in their partner.

Although the correlation between dominance and convergence was significant, the correlation itself was not as large ($r = .283$) as would have been expected. This is likely due to the fact that the CCS is not just examining the construct of dominance, even though it is likely that the more submissive partner involved in convergence does consider his/her partner to be dominant. If you were to look at just the subscale of interpersonal deference (the subscale expected to be similar to the concept of dominance), the correlation increases to $r = .343$. This is really the only drawback to assessing the scale as a whole - some of the nuances in relationships like this are weakened.

*Research Questions*

The research questions in this study served two main purposes. The first was to assess the best way to measure convergence communication in terms of its predictive validity. The second was to begin to examine the theoretical model. Both of these will be considered in turn.

The first research question was concerned with the best way to measure convergence communication within the theoretical model. There was really no difference in the regressions between the scale as a whole and the subscales in the prediction of differentiation of self. This suggests that depending on the particular research goals, either method could reasonably be employed. However, if the research is concerned with the overall idea of convergence
communication (i.e., as would be the case in theory or model testing), conceptually it makes sense to use the one measure.

The second and third research questions were focused on the relation of convergence communication to other variables included in the theoretical model of necessary convergence. High levels of convergence communication were significantly associated with both higher levels of depression and higher levels of learned helplessness in the study sample. There was also evidence to suggest that learned helplessness could be a moderating variable between convergence communication and depression. In the future, further model testing should be able to clarify this relationship.

These findings were significant to the present research goals for several reasons. First, since the population of this present research was a general population, finding this kind of connection suggests that in a more specialized population the relationship between these variables could be stronger. Since depression is a disorder only affecting a small percentage of the population, finding support for the connection between it and convergence communication is significant.

Second, since whole model testing has not yet been conducted, this is an important first step in demonstrating the potential and need for this research. Looking back at the initial model (Figure 1), there is now some preliminary support for the connection between the variables of depression, learned helplessness, and convergence communication. More specifically, it was theorized that both learned helplessness and differentiation of self would serve as mediators to depression- support was found for this, as well as for the idea that convergence communication can lead to depression.

*Implications for the Present Study of Convergence Communication*
These findings have contributed to both the study of convergence communication as a communication construct and the study of necessary convergence as a communication theory. We now have a more valid and reliable measure of convergence communication. By strengthening the subscales of interpersonal deference and disequilibrium, the measure of the whole concept is more accurate than it was previously. We can also say the measure is more reliable, as this was another time the measure was successfully employed to capture the phenomenon.

Now that a more reliable and valid measure of convergence communication is available, whole model testing can begin. Rather than just examining the relationships between variables, now data can be collected that will allow the testing of the entire model of the theory- moving beyond this initial examination. The regressions completed in this study suggest that convergence communication will have a direct effect on depression, but also on learned helplessness and differentiation of self.

In addition to the findings that I was looking for, these data have also provided some unanticipated findings. In terms of sex differences, males and females differed among some of the major variables. Mean scores for males were higher for differentiation of self and aggression whereas females were more likely to be communicatively apprehensive, depressed, and feel unequal in their relationships. In terms of NCC, this could mean that males and females might need to be assessed differently. Looking at the model, men were more likely to feel differentiated- which was one of the potential mediating factors for internalizing disorders. And since men were higher on the only externalizing disorder that was tested, perhaps the model for NCC is actually different for men and women. This could be possible considering that the theory emerged from data from women exclusively. While there was not a significant difference
between males and females in terms of convergence or who was more likely to be high or low in convergence, that does not preclude the fact that the outcomes or mediation of this phenomenon could differ based on sex.

Additional thoughts on the theory can be provided by the findings from the examination of convergence in different relationship types. The first such finding is that the participants who chose to report on a family relationship were significantly more likely to have high convergence scores. It was also the case that those participants who chose a family relationship had significantly higher scores for motivation and interpersonal deference. This could be support for the idea that convergence is either specific to family relationships, or that convergence behaves differently in family and nonfamily relationships. This seems especially likely considering which two subscales were different (motivation and interpersonal deference). The issues of interpersonal deference and motivation seem especially salient in family relationships, and it may be the case that since family relationships are usually long-term it makes sense that a convergent relationship could become chronic in these circumstances.

In light of this study, the issue of whether convergence communication is a state or trait characteristic, as previously mentioned, warrants further discussion. It seems likely that for some people convergence is a state characteristic—that is, it happens occasionally or has happened in passing in prior relationships. Moreover, it seems unlikely that convergence is a personal trait, characteristic since it is relationally bound. So, rather than state or trait, I would refer to convergence as a behavior pattern that can become habituated in some relationships. The theory, as it stands now, is focused primarily on relationships where convergence is both chronic and incessant. The most difficult aspect of researching these particular relationships is targeting the population for which this is an issue.
Lastly, I would like to briefly discuss using the scale of interpersonal deference as a proxy measure for convergence. In a clinical setting, it would be beneficial to have a short measure in order to isolate the population either for further study or treatment. In the current study, convergence is comprised of the three scales of interpersonal deference, motivation, and disequilibrium. This being the case, I can’t empirically compare the scale with one of its components. Theoretically, however, I would say that interpersonal deference could be a proxy measure for convergence communication and serve to assess individuals that could be prone to convergence. However, since the entire convergence scale is not that long, the ideal would be to use the whole measure rather than one of it’s parts.

In summary, convergence communication now has a more reliable measure. Convergence communication is comprised of the three elements of interpersonal deference, motivation, and disequilibrium- and all three scales should ideally be included when assessing convergence. It is possible that the model for men and women differ in terms of how convergence is mediated and what the potential outcomes are. It is possible that convergence is different in family relationships (and even specifically parental relationships) than in other relationships. These last two possibilities should be explored in future research.

Implications for the Larger Body of Research

There are implications for this research in the larger body of communication research; and more specifically, research aimed at understanding communication in a variety of different relationship types.

This study will open the door for future research studying both the phenomenon of convergence communication and the theoretical model of necessary convergence communication theory. Although initially developed within a family context, this theory has been expanded to
apply to a variety of relationship types and therefore has the potential to help explain both family and other types of interpersonal relationships. In the present study, a significant number of respondents chose to report about their mother or father (48.8% combined). However, the next largest category was romantic partner (18.5%), followed by both same and opposite sex friends (23.1% combined). It also, conceptually, has the potential to apply to abusive relationships, and future research can explore if that is the case.

In interactions with other communication scholars, it is often the case where when exposed to this theory he or she will say “oh yes, that sounds just like….” This theory has roots in communication, sociology, and psychology and many of the terms or components of this theory are reminiscent of other ideas or work. There are elements of this theory that seem similar to the chilling effect and the spiral of silence for the submissive partner, and even Machiavellianism for the more dominant partner. The terminology of this theory has evolved specifically to describe the communication pattern observed in these relationships, but there are still many links that could be made between this work and existing work. Specifically, this theory’s primary focus is on the more submissive partner, and little attention has been paid to the dominant partner. This leaves another side to this communication pattern that has yet to be explored.

Conflict patterns (Blake & Mouton, 1964) and family communication patterns (Fitzpatrick & Ritchie, 1994) are additional constructs that might have interesting connections to convergence communication. While this study did not assess the relationships of convergence communication to these constructs, the way that people tend to deal with conflict could easily impact convergence. Likewise, family communication patterns could impact not just single participants, but for those people who are discussing a family relationship, the pattern could
potentially impact both members of the dyad. Future research should include measures for both of these variables in an attempt to better understand how these could impact convergence.

In a more general sense, convergence communication will assist interpersonal and family scholars in assessing power and dominance, but also the negotiation of meaning, in close personal relationships in a tangible way. Currently, there is a lack of theories about meaning construction (or manipulation) that are specific enough to be testable, and still broad enough to be useful. This theory meets both of those criteria and is a promising step in the right direction.

Another implication of this research is its potential usefulness outside of academia in an applied setting. If future research confirms that this communication pattern is linked to harmful internalizing disorders, or if future research established a link between it and externalizing disorders, then being able to recognize or “diagnose” convergence communication may prove to be a useful tool for mental health practitioners and researchers. These professionals may be able to use a better understanding of this phenomenon in the treatment and prevention of potentially harmful outcomes.

Limitations and Future Research

This study was not without limitations. First, the study sample was not a culturally diverse population. This could potentially limit the generalizability of the findings to more diverse populations. Second, the sample was a general population of students. This phenomenon is one that could potentially benefit from a more specific clinical sample (such as people who are depressed) to achieve greater variability within the mental health measures; although, it is encouraging to find some significance among just a general population. Third, there was little variation in age, so most of what we know thus far about convergence
communication has come from college aged students. If this phenomenon varies with age, further research among a larger age range is needed to better understand that.

Future research should continue to examine the way that equilibrium is dividing, inconsistently, into two different factors. Conceptually, since all these items are measuring a lack of equilibrium within a relationship, there is no obvious reason why these items would divide at all, and especially why the division would shift with a simple rewording of half the items.

Future research is also needed to understand the overall utility of the theory of necessary convergence. Now that a valid, and increasingly reliable, measure is in place the process of testing the entire model of the theory can continue. This study has offered some initial support for the idea that convergence communication is linked to such outcomes as depression, and future research can continue to better understand the links between these ideas.

Conclusion

In the scope of family communication, and relational communication more broadly, focusing on a theory that examines one communication pattern might seem small in scope. However, understanding one communication pattern and advancing one theory has broader implications. Ultimately these small steps are how we begin to understand human communication.

This research is just a few more pieces in the puzzle of the study of communication in relationships. This research contributes to our knowledge of the phenomenon of convergence communication, and also to our knowledge of the necessary convergence of communication.
theory. This research, combined with future research on this phenomenon and theory, will hopefully be a useful in all future application of the study of convergence communication.
References


Appendices
Appendix A

[Convergence Communication Scale: Preliminary Version]

Dominance in Interaction with Your Relational Partner

*Instructions:* Sometimes in relationships things may feel out of balance, with one partner seeming to have more influence over the other partner in directing how they act, think, or the choices they make. For the following, please think about one person in your life who tends to have influence in your life—possibly influencing your choices, behaviors, or how you think about the world. Keep that person in mind while responding to the items below.

What is this person’s relationship to you?

- Mother
- Opposite sex friend
- Father
- Same sex friend
- Grandparent
- Romantic partner
- Sibling
- Other

For each of the following statements circle the number of the 5-point scale (1 = not at all, 5 = very much) that best describes how that statement applies to your interactions with your relational partner. There are no right or wrong answers, so don't spend a lot of time on any one item. We are looking for your overall impression regarding each statement. Be sure not to omit any items.

1 = Not at all
2 = Somewhat
3 = A moderate amount
4 = Quite a bit
5 = Very much

In my interactions with him or her…

1. This person is critical of me.
2. I try to accommodate my partner’s point of view just to avoid disagreement.
3. This person’s opinions are generally considered more important than mine.
4. I believe that what s/he says is usually law and not up for discussion.
5. This person’s opinion is usually considered the "right" one.
6. This person tells me what to believe.
7. This person’s dominance requires my submission.
8. We both respect each other’s opinions, even if we disagree.
9. I believe that my opinions are taken seriously.
10. I tend to defer to him or her.
11. This person asks for my opinion on things.
12. I can count on this person to support my ideas.
13. I tend to submit to this person’s desires.
14. I tend to embrace this person’s point of view as my own.
15. This person tends to demand that I agree with her or him.
16. I believe there will be a cost if I do not comply with what this person wants.
17. I run the risk of losing this person’s affection if I do not defer to her or him.
18. This person ignores me I don’t defer to her or him.
19. I fear consequences if I do not defer to this person.
20. I feel there is a risk in challenging this person.
21. This person imposes his or her will on me.
22. I defer to this person too much.
23. When this person and I disagree, s/he tends to be coercive.
24. We both share attitudes and beliefs with each other.
25. We both initiate conversations.
26. We both offer opinions in conversations.
27. We both contribute equally to conversations.
28. This person states things in an unyielding way.
29. This person “steamrolls” you with his or her beliefs, actions, arguments.

**Description:** The NCM is a 29-item instrument designed to measure perceptions of required convergence needed in communicative interaction between parent and offspring. Factor analysis revealed that the NCM has 4 subscales: Motivation (items 1, 2, 6, 7, 15, 16, 17, 18, 19, 20, 21, 22, 23, 28, 29); Convergence (items 3, 4, 5, 10, 13, 14); Equilibrium-Participation (items 24, 25, 26, 27) and Equilibrium-Consideration (items 8, 9, 11, 12).

**Scoring:** The NCM is easily scored by first reverse scoring the following items (8, 9, 11, 12, 24, 25, 26, 27), then summing items on the 5-point Likert-type scale for each subscale and then for the total score. Higher scores indicate low equilibrium, high motivation to converge, and high convergence by the respondent.
Proposed changes to Scale:

Additional items:

When I am with this person I tend not to think for myself.
This person can easily change my mind.
I eventually begin to see things in the same way as this person.
This person is pretty good at getting me to see things the same way he or she does.
Even if we disagree at first, I often see things this person’s way.
I often end up seeing things from this person’s point of view.
I often agree with this person even when I am unsure of what I think.
This person’s certainty makes me question my own ideas.
It’s easier just to let this person decide things for me.
This person has a lot of influence over the way I think.
This person has a lot of influence over the way I see the world.
I typically believe what this person tells me to believe.
This person expects you to think as he or she does.
Reworded items:

8. We both respect each other's opinions, even if we disagree. (original)
   If we disagree, I’m not sure my partner still respects me. (reword)

9. I believe that my opinions are taken seriously. (original)
   I do not think my partner takes my opinions serious. (reword)

24. We both share attitudes and beliefs with each other. (original)
    My partner is the only person in the relationship who shares attitudes and beliefs. (reword)

25. We both initiate conversations. (original)
    Only my partner initiates conversations. (reword)
Dominance-Submission (Behavior-Based Instrument) (Burgoon, Johnson, & Koch, 1998)

On a scale of 1 (strongly disagree) to 5 (strongly agree)

1. This person usually takes charge of conversations.
2. People often turn to this person when decisions have to be made.
3. This person rarely influences others.
4. This person is often responsible for keeping the conversation going when we talk.
5. This person usually does more talking than listening.
6. This person has very little skill in managing conversations.
7. This person often stops to think about what to say in conversations.
8. It seems as if this person finds it hard to keep his/her mind on the conversation.
9. I am often influenced by this person.
10. This person often insists on discussing something even when others don’t want to.
11. This person often makes his/her presence felt.
12. This person often wins any arguments that occur in our conversations.
13. This person is completely self-confident when interaction with others.
14. This person often acts nervous in conversations.
15. This person is often concerned with other’s impressions of him/her.
16. This person has a natural talent for winning over others.
17. This person seems to have trouble concentrating on the topic of conversation.
18. This person is very expressive during conversations.
19. This person is often the center of attention.
20. This person has a dramatic way of interacting.
21. This person is usually relaxed and at ease in conversations.
22. This person often avoids saying things in conversations because he/she might regret it later.
23. This person is more of a follower than a leader.
24. This person often has trouble thinking of things to talk about.
25. This person has a way of interacting that draws others to him/her.
26. This person remains task oriented during conversations.
27. This person shows a lot of poise during interactions.
28. This person is not very smooth verbally.
29. This person often acts impatient during conversations.
30. This person is usually successful in persuading others to act.
31. This person has a memorable way of interacting.
Differentiation of Self Inventory (DSI-R) (Skowron & Schmitt, 2003)

These are questions concerning your thoughts and feelings about yourself and relationships with others. Please read each statement carefully and decide how much the statement is generally true of you on a 1 (not at all) to 5 (very) scale. If you believe that an item does not pertain to you (e.g., you are not currently married or in a committed relationship, or one or both of your parents are deceased), please answer the item according to your best guess about what your thoughts and feelings would be in that situation. Be sure to answer every item and try to be as honest and accurate as possible in your responses.

1. People have remarked that I’m overly emotional.
2. I have difficulty expressing my feelings to people I care for.
3. I often feel inhibited around my family.
4. I tend to remain pretty calm even under stress.
5. I usually need a lot of encouragement from others when starting a big job or task.
6. When someone close to me disappoints me, I withdraw from him/her for a time.
7. No matter what happens in my life, I know that I’ll never lose my sense of who I am.
8. I tend to distance myself when people get too close to me.
9. I want to live up to my parents’ expectations of me.
10. I wish that I weren’t so emotional.
11. I usually do not change my behavior simply to please another person.
12. My spouse/partner could not tolerate it if I were to express to him/her my true feelings about some things.
13. When my spouse/partner criticizes me, it bothers me for days.
14. At times my feelings get the best of me and I have trouble thinking clearly.
15. When I am having an argument with someone, I can separate my thoughts about the issue from my feelings about the person.
16. I’m often uncomfortable when people get too close to me.
17. I feel a need for approval from virtually everyone in my life.
18. At times I feel as if I’m riding an emotional roller-coaster.
19. There’s no points in getting upset about things I cannot change.
20. I’m concerned about losing my independence in intimate relationships.
21. I’m overly sensitive to criticism.
22. I try to live up to my parents’ expectations.
23. I’m fairly self-accepting.
24. I often feel that my spouse/partner wants too much from me.
25. I often agree with others just to appease them.
26. If I have had an argument with my spouse/partner, I tend to think about it all day.
27. I am able to say “no” to others even when I feel pressured by them.
28. When one of my relationships becomes very intense, I feel the urge to run away from it.
29. Arguments with my parent(s) or sibling(s) can still make me feel awful.
30. If someone is upset with me, I can’t seem to let it go easily.
31. I’m less concerned that others approve of me than I am in doing what I think is right.
32. I would never consider turning to any of my family members for emotional support.
33. I often feel unsure when others are not around to help me make a decision.
34. I’m very sensitive to being hurt by others.
35. My self-esteem really depends on how others think of me.
36. When I’m with my spouse/partner, I often feel smothered.
37. When making decisions, I seldom worry about what others will think.
38. I often wonder about the kind of impression I create.
39. When things go wrong, talking about them usually makes it worse.
40. I feel things more intensely than others do.
41. I usually do what I believe is right regardless of what others say.
42. Our relationship might be better if my spouse/partner would give me the space I need.
43. I tend to feel pretty stable under stress.
44. Sometimes I feel sick after arguing with my spouse/partner.
45. I feel it’s important to hear my parents’ opinions before making decisions.
46. I worry about people close to me getting sick, hurt, or upset.
Demographic Information:

Age ________________

Year in School
   Freshman
   Sophomore
   Junior
   Senior

Sex
   Male
   Female

Ethnicity
   White/Caucasian
   African American
   Hispanic
   Native American/American Indian
   Asian
   Multiracial
   Other
Communication Apprehension (PRCA-24) (McCroskey, 1993)

*1. I dislike participating in group discussions.
2. Generally, I am comfortable while participating in group discussions.
*3. I am tense and nervous while participating in group discussions.
4. I like to get involved in group discussions.
*5. Engaging in a group discussion with new people makes me tense and nervous.
6. I am calm and relaxed while participating in a group discussion.
*7. Generally, I am nervous when I have to participate in a meeting.
8. Usually I am calm and relaxed while participating in a meeting.
9. I am very calm and relaxed when I am called upon to express an opinion at a meeting.
*10. I am afraid to express myself at meetings.
*11. Communicating at meetings usually makes me feel uncomfortable.
12. I am very relaxed when answering questions at a meeting.
*13. While participating in a conversation with a new acquaintance, I feel very nervous.
14. I have no fear of speaking up in conversations.
*15. Ordinarily I am very tense and nervous in conversations.
16. Ordinarily I am very calm and relaxed in conversations.
17. While conversing with a new acquaintance, I feel very relaxed.
*18. I am afraid to speak up in conversations.
19. I have no fear of giving a speech.
*20. Certain parts of my body feel very tense and rigid while I am giving a speech.
21. I feel relaxed while giving a speech.
*22. My thoughts become confused and jumbled when I am giving a speech.
23. I face the prospect of giving a speech with confidence.
*24. While giving a speech, I get so nervous I forget facts I really know.

* Indicates a reworded item.
Beck’s Depression Inventory  (Beck, Steer, & Brown, 1996)

1) 0  I do not feel sad.
    1  I feel sad.
    2  I am sad all the time and I can't snap out of it.
    3  I am so sad or unhappy that I can't stand it.

2) 0  I am not particularly discouraged about the future.
    1  I feel discouraged about the future.
    2  I feel I have nothing to look forward to.
    3  I feel that the future is hopeless and that things cannot improve.

3) 0  I do not feel like a failure.
    1  I feel I have failed more than the average person.
    2  As I look back on my life, all I can see is a lot of failures.
    3  I feel I am a complete failure as a person.

4) 0  I get as much satisfaction out of things as I used to.
    1  I don't enjoy things the way I used to.
    2  I don't get real satisfaction out of anything anymore.
    3  I am dissatisfied or bored with everything.

5) 0  I don't feel particularly guilty.
    1  I feel guilty a good part of the time.
    2  I feel quite guilty most of the time.
    3  I feel guilty all of the time.

6) 0  I don't feel I am being punished.
    1  I feel I may be punished.
    2  I expect to be punished.
    3  I feel I am being punished.

7) 0  I don't feel disappointed in myself.
    1  I am disappointed in myself.
    2  I am disgusted with myself.
    3  I hate myself.
<table>
<thead>
<tr>
<th>Item</th>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>8)</td>
<td>0</td>
<td>I don't feel I am any worse than anybody else.</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>I am critical of myself for my weaknesses or mistakes.</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>I blame myself all the time for my faults.</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>I blame myself for everything bad that happens.</td>
</tr>
<tr>
<td>9)</td>
<td>0</td>
<td>I don't have any thoughts of killing myself.</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>I have thoughts of killing myself, but I would not carry them out.</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>I would like to kill myself.</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>I would kill myself if I had the chance.</td>
</tr>
<tr>
<td>10)</td>
<td>0</td>
<td>I don't cry any more than usual.</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>I cry more now than I used to.</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>I cry all the time now.</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>I used to be able to cry, but now I can't cry even though I want to.</td>
</tr>
<tr>
<td>11)</td>
<td>0</td>
<td>I am no more irritated now than I ever am.</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>I get annoyed or irritated more easily than I used to.</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>I feel irritated all the time now.</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>I don't get irritated at all by the things that used to irritate me.</td>
</tr>
<tr>
<td>12)</td>
<td>0</td>
<td>I have not lost interest in other people.</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>I am less interested in other people than I used to be.</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>I have lost most of my interest in other people.</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>I have lost all of my interest in other people.</td>
</tr>
<tr>
<td>13)</td>
<td>0</td>
<td>I make decisions about as well as I ever could.</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>I put off making decisions more than I used to.</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>I have greater difficulty in making decisions than before.</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>I can't make decisions at all anymore.</td>
</tr>
<tr>
<td>14)</td>
<td>0</td>
<td>I don't feel I look any worse than I used to.</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>I am worried that I am looking old or unattractive.</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>I feel that there are permanent changes in my appearance that make me look unattractive.</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>I believe that I look ugly.</td>
</tr>
<tr>
<td>15)</td>
<td>0</td>
<td>I can work about as well as before.</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>It takes an extra effort to get started at doing something.</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>I have to push myself very hard to do anything.</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>I can't do any work at all.</td>
</tr>
<tr>
<td>16)</td>
<td>0</td>
<td>I can sleep as well as usual.</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>I don't sleep as well as I used to.</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>I wake up 1-2 hours earlier than usual and find it hard to get back to sleep.</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>I wake up several hours earlier than I used to and cannot get back to sleep.</td>
</tr>
</tbody>
</table>
17) 0  I don't get more tired than usual.
     1  I get tired more easily than I used to.
     2  I get tired from doing almost anything.
     3  I am too tired to do anything.

18) 0  My appetite is no worse than usual.
     1  My appetite is not as good as it used to be.
     2  My appetite is much worse now.
     3  I have no appetite at all anymore.

19) 0  I haven't lost much weight, if any, lately.
     1  I have lost more than 5 pounds.
     2  I have lost more than 10 pounds.
     3  I have lost more than 15 pounds.

     I am purposely trying to lose weight by eating less.
     YES_____  NO______.

20) 0  I am no more worried about my health than usual.
     1  I am worried about physical problems such as aches and pains; or upset
        stomach; or constipation.
     2  I am very worried about physical problems and it's hard to think of much else.
     3  I am so worried about my physical problems that I cannot think about anything
        else.

21) 0  I have not noticed any recent change in my interest in sex.
     1  I am less interested in sex than I used to be.
     2  I am much less interested in sex now.
     3  I have lost interest in sex completely.
Physical Aggression (Buss & Perry, 1992)

1. Once in a while I can't control the urge to strike another person.
2. Given enough provocation, I may hit another person.
3. If somebody hits me, I hit back.
4. I get into fights a little more than the average person.
5. If I have to resort to violence to protect my rights, I will.
6. There are people who pushed me so far that we came to blows.
*7. I can think of no good reason for ever hitting a person.
8. I have threatened people I know.
9. I have become so mad that I have broken things.
10. I tell my friends openly when I disagree with them.
11. I often find myself disagreeing with people.
12. When people annoy me, I may tell them what I think of them.
13. I can't help getting into arguments when people disagree with me.
14. My friends say that I'm somewhat argumentative.

* Indicates a reworded item.
PSF (Lindelow, Hardy, & Rodgers, 1997).

1 have you felt on edge, keyed up, or mentally tense?
2 have you been in low spirits or felt miserable?
3 have you felt depressed first thing in the morning?
4 have you had the feeling that something terrible might happen?
5 have you had days when your thoughts were muddled or slow?
6 have you had no appetite, not counting when you were physically ill?
7 have you been in situations, such as in a crowd or meeting people, when you have become unduly anxious?
8 have you been in situations when you felt shaky, sweaty, or you could not catch your breath?
9 have you had trouble falling asleep?
10 have you had trouble with waking up and not being able to get back to sleep?
11 have you been frightened or worried about becoming ill or dying?
12 have you felt fidgety or restless?
13 have you found it hard to concentrate on things?
14 have there been days when you got tired very easily?
15 have there been days when you found it difficult to get things done?
16 have you had the feeling that the future does not hold much for you?
17 have you been so caught up in your own thoughts that you neglected things?
18 have you seemed to lose interest in things?
Learned Helplessness (Peterson, 1993)

1 I didn't leave my house all day.
2 I didn't cook for myself.
3 I was unable to fix a broken object.
4 I gave up in the middle of doing something.
5 I didn't compete when given the opportunity.
6 I let someone take advantage of me.
7 I asked others to do something for me.
8 I didn't stand up for myself.
9 I let someone else make a decision for me.
10 I used another person as a crutch.
11 I refused to do something on my own.
Consent Form

1. **This section provides an explanation of the study in which you will be participating:**

The study in which you will be participating is part of research project intended to examine individuals’ communication in relationships with a dominant partner. Completion of this survey will also allow us to better understand this type of communication.

You must be at least 18 years of age to participate. If you are below 18 years of age, please inform the investigator immediately.

If you agree to take part in this research, you will be asked to complete a survey that takes about 30 minutes to complete. The survey will include questions about your personality and your experiences.
Appendix B
Revised Convergence Communication Scale

[Convergence Communication Scale: Revised Version]

Dominance in Interaction with Your Relational Partner

Instructions: Sometimes in relationships things may feel out of balance, with one partner seeming to have more influence over the other partner in directing how they act, think, or the choices they make. For the following, please think about one person in your life who tends to have influence in your life—possibly influencing your choices, behaviors, or how you think about the world. Keep that person in mind while responding to the items below.

What is this person’s relationship to you?

Mother
Father
Grandparent
Sibling
Opposite sex friend
Same sex friend
Romantic partner
Other

For each of the following statements circle the number of the 5-point scale (1 = not at all, 5 = very much) that best describes how that statement applies to your interactions with your relational partner. There are no right or wrong answers, so don't spend a lot of time on any one item. We are looking for your overall impression regarding each statement. Be sure not to omit any items.

1 = Not at all
2 = Somewhat
3 = A moderate amount
4 = Quite a bit
5 = Very much

In my interactions with him or her...

1. This person is critical of me.
2. I try to accommodate my partner’s point of view just to avoid disagreement.
3. This person’s opinions are generally considered more important than mine.
4. I believe that what s/he says is usually law and not up for discussion.
5. This person’s opinion is usually considered the "right" one.
6. This person tells me what to believe.
7. This person’s dominance requires my submission.
8. If we disagree, I’m not sure my partner still respects me.
9. I do not think my partner takes my opinions serious
10. I tend to defer to him or her.
11. This person asks for my opinion on things.
12. I can count on this person to support my ideas.
13. I tend to submit to this person’s desires.
14. I tend to embrace this person’s point of view as my own.
15. This person tends to demand that I agree with her or him.
16. I believe there will be a cost if I do not comply with what this person wants.
17. I run the risk of losing this person’s affection if I do not defer to her or him.
18. This person ignores me I don’t defer to her or him.
19. I fear consequences if I do not defer to this person.
20. I feel there is a risk in challenging this person.
21. This person imposes his or her will on me.
22. I defer to this person too much.
23. When this person and I disagree, s/he tends to be coercive.
24. My partner is the only person in the relationship who shares attitudes and beliefs.
25. Only my partner initiates conversations.
26. We both offer opinions in conversations.
27. We both contribute equally to conversations.
28. This person states things in an unyielding way.
29. This person “steamrolls” over you with his or her beliefs, actions, arguments.
30. This person can easily change my mind
31. I eventually begin to see things in the same way as this person.
32. This person is pretty good at getting me to see things the same way he or she does.
33. Even if we disagree at first, I often see things this person’s way.
34. I often end up seeing things from this person’s point of view.
35. I often agree with this person even when I am unsure of what I think.
36. This person’s certainty makes me question my own ideas.
37. This person has a lot of influence over the way I think.
38. I typically believe what this person tells me to believe.

Description: The NCM is a 29-item instrument designed to measure perceptions of required convergence needed in communicative interaction between parent and offspring. Factor analysis revealed that the NCM has 3 subscales: Motivation (items 1, 2, 6, 7, 15, 16, 17, 18, 19, 20, 21, 22, 23, 28, 29); Interpersonal Deference (items 3, 4, 5, 10, 13, 14, 30, 31, 32, 33, 34, 35, 36, 37, 38); Disequilibrium (items 8, 9, 11, 12, 24, 25, 26, 27).

Scoring: The NCM is easily scored by first reverse scoring the following items (11, 12, 26, 27), then summing items on the 5-point Likert-type scale for each subscale and then for the total
score. Higher scores indicate low equilibrium, high motivation to converge, and high convergence by the respondent.
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Education

PhD  The Pennsylvania State University
MA  University of Arkansas; Fayetteville, AR
BA  Columbus State University; Columbus, GA

Publications


Manuscripts under Review


Walker, A. M. *Depicting the Stepmother and Managing the Stepmother Identity: An Analysis of the Film Stepmom.* Manuscript submitted for publication.

Manuscripts in Progress


Conference Papers


2004  Walker, A. M., & Webb, L. M. *Focus Groups 101: How to Get Communication Majors Talking About One Thing They’d Prefer to Not Discuss.* Southern States Communication Assoc., Tampa, April 1.


2000  Walker A. M. *Children of Divorce.* Presented paper as a panel member on undergraduate research. American Communication Assoc. Louisville, KY

*Denotes a top four paper award.