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## Listening Competence in Initial Interactions II: Applying Trait Centrality to Discover the Relative Placement of Listening Competence Among Implicit Competency Theories

Graham D. Bodie, Michelle E. Pence, Michael Rold, M. Daniel Chapman, Jamie Lejune, & Lisa Anzalone

This article explores the relative placement of listening competence within other implicit theories used to form judgments of interlocutor competence. Two studies explore the relations among communicative competence, social skills, and listening competence and various attributes that are purportedly implied by each. Study 1 reveals that very few attributes are uniquely related to any one implicit theory. Study 2 demonstrates that listening competence is located subordinately to communicative competence. The discussion focuses on what these studies add to the competency literature and how future research can continue to explore implicit competency theories.

*Keywords: Communication Competence; Implicit Personality Theory; Social Cognition; Social Skills* 

Graham D. Bodie is an Associate Professor in the Department of Communication Studies at Louisiana State University and Agricultural & Mechanical College and Visiting Associate Professor in the School of Media and Communication, Korea University, Seoul, South Korea. Michelle E. Pence is an Assistant Professor in the Department of Communication at the University of Texas of the Permian Basin. Michael Rold is a Visiting Assistant Professor in the Department of Communication Studies at West Virginia University. M. Daniel Chapman, Jamie Lejune and Lisa Anzalone were undergraduate research team members in the LSU Listening Lab and are graduates of the LSU A&M Department of Communication Studies. Correspondence to: Graham D. Bodie, Department of Communication Studies, LSU, 136 Coates Hall, Baton Rouge, LA 70803, USA. E-mail: gbodie@lsu.edu

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What is communication? Communication scholars have struggled with this question for decades, and a substantial list of conceptualizations has emerged (Craig, 1999). In a similar manner, ordinary people define communication in myriad ways. Often called *implicit theories of communication*, these internal representations of the attributes central to how communication works direct our attention, constitute how we use communication to meet social goals, and affect how we engage with others (B. J. O'Keefe, 1988). One particularly important effect implicit theories of communication have is to influence how we judge others, before, during, and after interactions (Fiske & Taylor, 1991; Grahe & Bernieri, 1999; Honeycutt, 1993; Kellermann & Lim, 1989; Metts & Grohskopf, 2003); this is particularly true of competency judgments (Pavitt & Haight, 1986). Although few would argue with the importance of communicative competence to a range of outcomes, the structure of lay conceptualizations of communication remains unclear in several important respects.

First, the specific attributes deemed central to communication competence and related implicit theories of competence (such as listening competence) are strikingly similar. If, as implied by these similarities, the conceptual space for various communication-related competencies is not orthogonal then attempts to teach specific sets of skills are doomed from the start. Although most agree that separating "speaking" and "listening" competencies is arbitrary and that a speaking-listening dichotomy obscures important connections (Berger, 2011), nevertheless organizations such as the National Communication Association continue to generate separate lists of skills that are incorporated into educational initiatives (Morreale, Rubin, & Jones, 1998). If, however, many of the molar and molecular skills espoused as important by disciplinary spokespersons span competency portfolios, efforts based on the assumption that specific skill sets can be individually taught or trained may need to be rethought. Likewise, the overlapping nature of skill sets complicates efforts to assess "twenty-first-century competencies," a movement likely to only progress with the increasing focus on Common Core and other education standards. Second, there is a lack of clarity regarding whether various implicit theories of competence (e.g., communication, listening) constitute unique categorical systems (i.e., are "central"). The degree to which one or more implicit theories are central traits driving the impression-formation process has important implications for which skills to teach and train and for the assessment rubrics designed to evaluate whether students are mastering competencies deemed important for academic and career success. Indeed, theories of competence are only useful to the extent that they are accurate depictions of the cognitive makeup of relevant judges.

Because of the importance placed on competencies by educators in primary and secondary schooling alike, this article attempts to map the structure and function of implicit theories of competence. In particular, the two studies reported herein contribute to a larger program of research by applying the concept of *trait centrality*, or the notion that a trait "furnishes the key" to impression formation rather than purely being a subsidiary attribute of an overarching concept (Asch, 1946). In an early

review of this work, Anderson (1981) described that some traits have a wider "breadth of implication" (p. 217); that is, "a trait is central to the extent it implies other traits, thereby affording generalized social judgment" (Orehek, Dechesne, Fishbach, Kruglanski, & Chun, 2010, p. 1120). Interestingly, this implicational reasoning is used throughout the literature on implicit competency theories (both communicative and listening), although explicit evidence for the hierarchical structure of implicit theories of competence is rare. Likewise, while the terms communicative competence and listening competence have been readily defined in terms of the attributes and behaviors associated with them, rarely does scholarly inquiry empirically examine whether these attributes are uniquely related to one implicit competency theory or whether the attributes are largely shared. Investigating the degree of conceptual overlap among constructs is long overdue.

The work on trait centrality in the context of competency judgment is crucial to future theory-building work regarding how humans cognitively manage their everyday interactions. In particular, our studies bring clarity to work attempting to explore the bases by which humans make judgments of interlocutors. Past theory-building efforts for listening competence have largely ignored their placement within the general cognitive makeup of individuals. While some studies have assumed implicit theories of listening are central traits driving the judgment process, others have suggested that listening competence is one among many implicit theories we use to judge others, calling into question the centrality of listening or its distinctness as an implicit theory (for review, see Bodie, St. Cyr, Pence, Rold, & Honeycutt, 2012). Below, we outline a rationale based on past research into implicit theories of communication and listening and show that this work proposes competing theoretical frameworks for the relations among communicative and listening competence as well as the broader term implicated by each—social skills (SS); these frameworks, in turn, propose different strategies for teaching and training putatively vital skills. Two studies are then presented with the purpose of testing these competing hypotheses. The primary goal of the first study is to assess whether certain subordinate attributes are uniquely related to one particular implicit competency theory or whether several theories of competence overlap to some degree in terms of their related attributes. Study 2 then draws on Lay Epistemic Theory (LET; Kruglanski, 1990) to question the hierarchical structure of implicit theories of competence.

#### The Relations Between Implicit Theories of Communication and Listening Competence

Although the impression formation process is certainly complex, one general principle is that behaviors employed in the course of an interaction cause us to infer that people possess various attributes (e.g., supportive, empathic, caring), which we use to form more general impressions of them (e.g., friend). In particular, we use a range of *implicit theories*—mental representations about particular phenomena—when judging interlocutors. Research on implicit theories begins with an assumption now considered axiomatic in the social cognitive literature: When "people encounter

novel phenomena, they generate plausible hypotheses to account for them and make them understandable" (Hewes & Planalp, 1987, p. 112; for review, see Moskowitz, 2005). When forming impressions of others one internal source influencing judgments is the implicit theory of competence subscribed to by the individual observer.

Although interest in individual schema systems related to communication behavior predated his work (Delia, 1977; B. J. O'Keefe, 1988; B. J. O'Keefe & Delia, 1982), Pavitt's research (Pavitt, 1981, 1989; Pavitt & Haight, 1985, 1986) comes closest to our conceptual interests. Drawing on the work of Rosch (1978), Pavitt suggested that judgments of interlocutor competence are based on a prototype, or best example of the category. In particular, impressions of a competent communicator are, "influenced by the observer's *implicit theory* of communicative competence, or structure of beliefs about the extent to which a set of personal attributes is linked with competent performance" (Pavitt, 1989, p. 406, emphases added). Thus, when certain behaviors used in an interaction signal an individual is "expressive" or "composed," the judgment that this individual is "communicatively competent" should be more likely than if personal attributes such as "athletic" or "thrifty" are triggered.

Discussing a "hierarchy" of implicit theories of communicative competence, Pavitt and Haight (1985) stated that those cognitive categories that are, "truly an important dimension for the classification and evaluation of people...should reside on the level most conducive to its use in these judgments" (p. 229). As such, these authors proposed a taxonomy that placed the cognitive category "communicative competence" on a *basic* level of abstraction, subordinate to the more abstract category "socially skilled." Placement on a basic level of abstraction suggests that communication competence is a rather homogeneous and central trait, one that implies a specific cadre of subordinate attributes that guide impressions of others' socially based aptitude. In other words, one's implicit theory of communication competence contains within it more subordinate attributes thought to describe what it means for an interlocutor to engage as a communicatively competent individual.

During the 1990s, and drawing from Pavitt's insights, scholars began developing taxonomies for implicit theories of listening competence, though the relative placement of listening competence within the more general cognitive structure of implicit competency theories is not agreed upon. For example, Haas and Arnold (1995) had 48 working adults list attributes of a communicatively competent coworker in one of several business-related situations (e.g., when requesting information, when requesting help). Listed attributes were then coded for descriptors of listening found in the extant literature (e.g., listens well, open-minded). Results not only replicated Pavitt and Haight's taxonomy, finding that communicative competence rests on a basic level of abstraction, but also demonstrated that people use listening-related attributes to describe communicatively competent coworkers. The conclusions and the methodological choices made by the authors imply a hierarchical model whereby judgments of competent listening fall underneath (i.e., at a lower level of abstraction) implicit theories of communicative competence. In other words, communicative competence

(CC) implicates listening competence (LC) but not vice-versa making CC but not LC the central organizing schema. Formally stated,

H1: Communicative competence but not listening competence is a central organizing schema.

Alternatively, a series of articles published in the *International Journal of Listening* (Coakley, Halone, & Wolvin, 1996; Halone, Cunconan, Coakley, & Wolvin, 1998; Halone, Wolvin, & Coakley, 1997) attempted to inductively derive conceptualizations of listening competence from participants who were asked to describe attitudes they associate with an "effective listener." Results from these studies showed that implicit theories of listening consist of complex (a) cognitive processes, such as attending to, understanding, and receiving messages; (b) affective processes, such as being motivated to attend to those messages; and (c) behavioral processes, such as



**Figure 1** (a) Hypothesized hierarchical structure representing H1; (b) hypothesized hierarchical structure representing H2; (c) hypothesized hierarchical structure representing H3.

back-channeling or paraphrasing. The methodological strategy used in these studies, however, effectively assumed that "effective listener" constitutes a unique schema that people use when evaluating others, one that resides on the same basic level of abstraction as communicative competence. In other words, listening competence is a central trait, suggesting a competing hypothesis:

H2: Both communicative and listening competence are central organizing schema.

Of course, even if both CC and LC are central traits, they are likely correlated. Drawing from Pavitt's work, this correlation could be explained by situating each under the umbrella of a "socially skilled" person. Formally,

H3: Implicit theories of communicative and listening competence rest on a basic level of abstraction and are hierarchically ordered under "social skill," which implicates each similarly.

In general, the precise relations among various attributes of competent individuals and putative higher order cognitive categories or implicit theories of competence remain unclear. Below we describe two studies that shed light on the competing hypotheses derived above, which are graphically depicted in Figure 1.

#### Study 1: The Unique Attributional Makeup of Implicit Competency Theories

Recently, our research team (Bodie et al., 2012) reported three studies similar in scope to the work of Fehr (2006) on laypeople's conceptions of love and commitment, and, more recently, on compassionate love (Fehr & Sprecher, 2009). In particular, our prior studies primarily attempted to distinguish between attributes related to communicative competence that are more and less implicated when making judgments of others as competent listeners. These studies contributed to the literature on definitions and conceptions of communication by specifying the kinds of self-other interactions that are likely to produce judgments of competency, similar to Fehr's attempt to define love, commitment, and compassionate love in terms of the attributes participants associate with those concepts.

Our first study showed that individuals primarily see competent listeners to possess the personal attributes of attentiveness, understanding, responsiveness, friendliness, and conversational flow; personal attributes such as intelligence, confidence, humor, and clarity, were not highly related to listening competence even though they were related to judgments of communicative competence. Two subsequent studies confirmed these results using slightly different methods. In other words, implicit theories of listening competence seem to contain five primary attributes that prompt judgments of others as good (or bad) listeners.

What our studies, and indeed all prior work in this area, failed to ascertain, however, is whether the various personal attributes listed as indicative of one or more implicit competency theories are uniquely related to one or are shared attributes

among more than one implicit theory. It is plausible, for instance, that the attributes we found associated with listening competence (e.g., attentive, responsive) are equally associated with communicative competence (i.e., H1, Figure 1a). Alternatively, the attributes we found associated with listening competence could be uniquely related to it (e.g., H2, Figure 1b) or related to communicative competence because of the shared conceptual space each of these implicit theories has with "social skills" (i.e., H3, Figure 1c). The distinctiveness of implicit theories of competence with regard to specific subordinate attributes is important, thus Study 1 seeks to examine the relations among implicit-theory categories and more subordinate attributes found in the competency literature. In particular, this study questions the unique attributional makeup of implicit competency theories. The logic of our method is that if implicit theories of listening constitute unique schema used in the impression-formation process, then those theories should contain attributes less associated with other theories of competence.

#### Method

#### Participants

Undergraduate students (N=68; 72.1% female) reported an average age of 20.2 (SD=3.80) and were primarily Caucasian/White (n=57); 7 participants marked "Black," 5 marked "Asian," and 1 marked "Cajun."<sup>1</sup> Although recruited through communication studies courses, only 7 identified as a major; 3 additionally identified as a minor.

#### Procedures

All data were collected in a research lab designed for the administration of computerbased surveys. After providing informed consent via appropriate Institutional Review Board procedures, respondents were directed to a secure URL. The first screen informed participants of our interest in characteristics that exemplify three types of competencies. Instructions subsequently defined competence as "a judgment you make of another person" and the three competencies that are the focus of this study (see Table 1).

The next screen contained a list of attributes drawn from the literature (see below), and participants were asked to indicate, by checking the appropriate box, whether each might be used when making competency judgments of someone during an initial interaction; the survey was programed to list the attributes in a random order. So, for each attribute, participants were asked to indicate whether it was related to any of the three implicit theories (CC, LC, SS). Participants were instructed they could check any of the three boxes, all boxes, or none of the boxes.

#### Choosing the attributes for this study

After being trained by the first author as part of several research team meetings over the course of one month, the remaining authors read through past literature (as part

Competency	Definition
Communicative	Part of a person's ability to choose amongst a variety of communication
competence	behaviors in order to accomplish interpersonal goals. Competent
	communicators are able to accomplish their communicative goals while also
	respecting others.
Listening	Part of a person's ability to choose amongst a variety of listening behaviors in
competence	order to accomplish interpersonal goals. Competent listeners are able to
	accomplish their listening goals while also respecting others.
Social skill	Part of a person's ability to interact with other people in a way that is both
	appropriate and effective. Socially skilled individuals are able to accomplish
	their interaction goals while also respecting others.

**Table 1** Definitions of Communication Competence, Listening Competence, and SocialSkills for Study 1

of an independent study project) on each of the related competencies to collect a number of attributes that have been used to describe each competency term. For instance, we included all attributes derived from our past work on listening competence (Bodie et al., 2012) as well as the work of Haas and Arnold (1995) and Halone and his colleagues (Halone & Pecchioni, 2001; Halone et al., 1997); each of these studies derived lists of attributes by asking participants their individual meanings of the term. In addition, we drew from formal models of competence such as those presented by Wiemann (1977), Segrin and Givertz (2003), and Spitzberg and Cupach (2002) as well as competency scales (e.g., Rubin, 1982; Rubin & Martin, 1994; Spitzberg, 1995). A total of 47 unique attributes were identified (see Table 2).

#### Results and Discussion

The results of primary interest involve the degree to which each putatively subordinate attribute exhibits a distinct relation with one of the competency judgments or whether attributes seem to implicate multiple competencies. Conceptually, distinction refers to the extent to which the association between a given attribute and an individual implicit-theory category does not overlap with the association of that same attribute and the other two categories. Operationally, we defined distinction by constructing confidence intervals (95%) around response frequencies for each attribute as it was marked for each competency. Nonoverlapping intervals suggest that an attribute is uniquely related to one of the implicit theories, while intervals that overlap suggest some degree of conceptual overlap. So, for instance, *open-minded* was marked for CC by 48.5% of participants with a 95% confidence interval of 36.7 to 60.4; LC was marked by 45% of participants with a 95% confidence interval of 54.9 to 77.4; and SS was marked by 41% of participants with a 95% confidence interval of 48.7 to 71.9. Since each of these confidence intervals overlap, *open-minded* was categorized as being indicative of all three competency judgments.<sup>2</sup>

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		Commur	iicative Com	petence	Listen	ing Compet	ence		Social Skills	
Trait	Ν	(%) u	95% Low	95% High	(%) <i>u</i>	95% Low	95% High	(%) u	95% Low	95% High
Open minded	68	33 (48.5%)	36.7%	60.4%	45 (66.2%)	54.9%	77.4%	41 (60.3%)	48.7%	71.9%
Enthusiastic	68	49 (72.1%)	61.4%	82.7%	23 (33.8%)	22.6%	45.1%	53 (77.9%)	68.1%	87.8%
Understanding	67	40 (59.7%)	48.0%	71.4%	53 (79.1%)	69.4%	88.8%	38 (56.7%)	44.9%	68.6%
Smooth conversational flow	67	50 (74.6%)	64.3%	85.0%	24(35.8%)	24.3%	47.3%	47 (70.1%)	59.2%	81.1%
Expressive	67	$54 \ (80.6\%)$	71.1%	90.1%	13 (19.4%)	9.9%	28.9%	42 (62.7%)	51.1%	74.3%
Composed	67	51 (76.1%)	65.9%	86.3%	14 (20.9%)	11.2%	30.6%	42 (62.7%)	51.1%	74.3%
Persuasive	67	57 (85.1%)	76.5%	93.6%	9 (13.4%)	5.3%	21.6%	39 (58.2%)	46.4%	70.0%
Conversational	67	48 (71.6%)	60.8%	82.4%	23 (34.3%)	23.0%	45.7%	52 (77.6%)	67.6%	87.6%
Cooperative	67	47 (70.1%)	59.2%	81.1%	38 (56.7%)	44.9%	68.6%	51 (76.1%)	65.9%	86.3%
Open and Direct	67	57 (85.1%)	76.5%	93.6%	12 (17.9%)	8.7%	27.1%	44 (65.7%)	54.3%	77.0%
Helpful	67	35 (52.2%)	40.3%	64.2%	30 (44.8%)	32.9%	56.7%	49 (73.1%)	62.5%	83.7%
Appears motivated	99	52 (78.8%)	68.9%	88.7%	13 (19.7%)	10.1%	29.3%	43 (65.2%)	53.7%	76.6%
Assertive	99	54 (81.8%)	72.5%	91.1%	10 (15.2%)	6.5%	23.8%	38 (57.6%)	45.7%	69.5%
Attentiveness	99	33 (50%)	37.9%	62.1%	55 (83.3%)	74.3%	92.3%	34 (51.5%)	39.4%	63.6%
Responsiveness	99	41 (62.1%)	50.4%	73.8%	50 (75.8%)	65.4%	86.1%	34 (51.5%)	39.5%	63.6%
Friendly	99	43 (65.2%)	53.7%	76.6%	29 (43.9%)	32.0%	55.9%	58 (87.9%)	80.0%	95.8%
Outgoing	99	39 (59.1%)	47.2%	71.0%	10 (15.2%)	6.5%	23.8%	57 (86.4%)	78.1%	94.6%
Confident	99	51 (77.3%)	67.2%	87.4%	12 (18.2%)	8.9%	27.5%	54 (81.8%)	72.5%	91.1%
Openness	99	43 (65.2%)	53.7%	76.6%	21 (31.8%)	20.6%	43.1%	52 (78.8%)	68.9%	88.7%
Communicates warmth	99	52 (78.8%)	68.9%	88.7%	29 (43.9%)	32.0%	55.9%	41 (62.1%)	50.4%	73.8%
Enjoys meeting new people	65	29 (44.6%)	32.5%	56.7%	13 (20%)	10.3%	29.7%	59 (90.8%)	83.7%	97.8%
Empathic	65	30 (46.2%)	34.0%	58.3%	46(70.8%)	59.7%	81.8%	40 (61.5%)	49.7%	73.4%

 Table 2
 Frequency Chart for Traits Associated with Communicative Competence, Social Skills, and Listening Competence for Study 1

Accepting	65	33 (50.8%)	38.6%	62.9%	31 (47.7%)	35.5%	59.8%	48 (73.8%)	63.2%	84.5%
Perceptive	65	39~(60%)	48.1%	71.9%	43 (66.2%)	54.7%	77.7%	29 (44.6%)	32.5%	56.7%
Wit	65	42 (64.6%)	53.0%	76.2%	17~(26.2%)	15.5%	36.8%	47 (72.3%)	61.4%	83.2%
Alert	65	41 (63.1%)	51.3%	74.8%	47 (72.3%)	61.4%	83.2%	33 (50.8%)	38.6%	62.9%
High Self-Esteem	65	40 (61.5%)	49.7%	73.4%	12 (18.5%)	0.0%	27.9%	$53 \ (81.5\%)$	72.1%	91.0%
Ethical	64	44 (68.8%)	57.4%	80.1%	21(32.8%)	21.3%	44.3%	45 (70.3%)	59.1%	81.5%
Intelligence	64	51 (79.7%)	69.8%	89.5%	31 (48.4%)	36.2%	60.7%	39 (60.9%)	49.0%	72.9%
Has credibility	63	47 (74.6%)	63.9%	85.4%	20 (31.7%)	20.3%	43.2%	44 (69.8%)	58.5%	81.2%
Supportive	63	38 (60.3%)	48.3%	72.4%	39 (61.9%)	49.9%	73.9%	46 (73%)	62.1%	84.0%
Sensitivity	62	33 (53.2%)	40.8%	65.6%	34 (54.8%)	42.5%	67.2%	41 (66.1%)	54.3%	77.9%
Organized	61	49 (80.3%)	70.4%	90.3%	$11 \ (18\%)$	8.4%	27.7%	27 (44.3%)	31.8%	56.7%
Reflective	60	33 (55%)	42.4%	67.6%	38 (63.3%)	51.1%	75.5%	27 (45%)	32.4%	57.6%
Other-oriented	59	27 (45.8%)	33.1%	58.5%	22 (37.3%)	24.9%	49.6%	41 (69.5%)	57.7%	81.2%
Aggressive	58	41 (70.7%)	59.0%	82.4%	4 (7%)	3.8%	13.4%	37 (63.8%)	51.4%	76.2%
Biased (for or against a topic)	56	41 (73.2%)	61.6%	84.8%	23 (41.1%)	28.2%	54.0%	27 (48.2%)	35.1%	61.3%
Nervous	56	30 (53.6%)	40.5%	66.6%	12(21.4%)	10.7%	32.2%	$41 \ (73.2\%)$	61.6%	84.8%
Tense, Constrained	54	34~(63%)	50.1%	75.8%	17 (31.5%)	19.1%	43.9%	36 (66.7%)	54.1%	79.2%
Offensive	54	42 (77.8%)	66.7%	88.9%	12 (22.2%)	11.1%	33.3%	31 (57.4%)	44.2%	70.6%
Closedness	53	29 (54.7%)	41.3%	68.1%	16(30.2%)	17.8%	42.5%	35 (66%)	53.3%	78.8%
Self-deprecating	52	28 (53.8%)	40.1%	67.4%	12 (23.1%)	11.6%	34.5%	28 (53.8%)	40.3%	67.4%
Disapproving	52	34 (65.4%)	52.5%	78.3%	15(28.8%)	16.5%	41.2%	29 (55.8%)	42.3%	69.3%
Hostile	51	35 (68.6%)	56.0%	81.4%	9 (17.6%)	7.3%	28.1%	31 (60.8%)	47.4%	74.2%
Self-centered	50	25 (50%)	36.1%	63.9%	14 (28%)	15.6%	40.4%	35 (70%)	57.3%	82.7%
Avoidant	50	26 (52%)	38.2%	65.8%	15 (30%)	17.3%	42.7%	27 (54%)	40.2%	67.8%
Disdainful(insulting, scornful)	49	32 (65.3%)	52.0%	78.6%	9 (18.4%)	7.5%	29.2%	26 (53.1%)	39.1%	67.0%

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Table 3 Distinct and Indistinct Traits for Study 1

CC	LC	SS	CC/LC	CC/SS	LC/SS	CC/SS/LC
Expressive Persuasive Open and Direct Assertive Intelligence Organized Biased (for or against a topic)	Attentiveness	Friendly Other-Oriented Helpful Outgoing Enjoys meeting new people Accepting High self-esteem Nervous	Responsiveness Understanding Perceptive	Conversational Flow Confident Composure Conversational Openness Closedness Enthusiastic Appears motivated Communicates warmth Wit Ethical Has credibility Aggressive Tense, constrained Offensive Self-deprecating Disapproving Hostile Disdainful	Bmpathic	Supportive Open-minded Cooperative Alert Sensitivity Reflective Self-centered Avoidant

Notes. CC = Communicative Competence; LC = Listening Competence; SS = Social Skills.

All of the raw frequency counts and percentages as well as the confidence interval results are displayed in Table 2. The attributes are arranged in order of most to least frequently marked for at least one competency (range = 49–68). Over 70% of the attributes (n=33) were marked as indicative of at least one competency judgment by 90% of the participants.

Table 3 presents the attributes as they are related to one or more of the competencies. Based on the 95% confidence intervals, only 15 seemed uniquely related to only one of the competencies: communicative competence (n=7), social skills (n=8), and listening competence (n=1). In particular, participants indicated that their implicit theories of communicative competence included the following personal attributes: expressive, persuasive, assertive, organized, intelligent, open and direct, and biased. Implicit theories of social skills included mostly positive attributes that referenced an other-oriented, friendly, helpful, outgoing demeanor. The only attribute to uniquely represent implicit theories of listening was attentiveness.

In general, it seems plausible that CC constitutes a unique, basic-level schema (i.e., a central trait); LC's similar status is more questionable. Since, however, 19 of the 47 attributes were associated with both CC and SS, any conclusions about the centrality of either are still premature. Indeed, a degree of collinearity between the concepts as measured indicates the plausibility of nonindependence at the conceptual level. Of course, complete independence of implicit theories (and attributes) is not expected, but what it does suggest is that the model depicted for H1 is more plausible than those depicted for either H2 or H3. Because, however, our criterion was nonoverlap, our results may be too conservative and thus not allow for overlap based on a hierarchical structure; in other words, the complete abandonment of either H2 or H3 is unwarranted based only on the results from Study 1. In order to better understand how these traits are indicative of impression formation, additional theory-building work needs to be explored; we begin this work in Study 2.

#### Study 2: Exploring the Hierarchy of Implicit Competency Theories

Pavitt (1989) made the case for taking an inferential approach for defining communicative competence, stating that "the inferential approach provides us with the potential to make specific predictions of the impressions and competence evaluations that observers of communicative behavior will make" (p. 407). Lay Epistemic Theory (LET) (Kruglanski, 1990) provides a unique theoretical account of the trait-centrality phenomenon and a specific methodological approach to determining causality and, thus, trait centrality. In particular, LET proposes that individuals hold information about the connection between any two traits in the form of "if. . .then" linkages. Assume, for instance, that an individual has the linkage, "if a person is attentive, then s/he is a competent listener," stored in his or her implicit theory of listening. If this individual encounters "Laura" who engages in behaviors that signal attentiveness such that the judgment, "Laura is attentive" is made, then the subsequent judgment "Laura is a competent listener," will also be formed.

LET further suggests that the relation between two traits can be symmetrical or asymmetrical, stored in bidirectional or unidirectional forms. Thus, the linkage "if Laura is attentive, then she is a competent listener" might be as strong as the linkage "if Laura is a competent listener, then she is attentive" (symmetrical); or one of those if/then statements might be stronger than the other (asymmetrical). The extent to which a trait implies other traits (i.e., the if/then link between that trait and other traits is primarily unidirectional) is what makes that trait central, and the extent to which a trait is stored symmetrically with other traits makes the trait more subsidiary.

In relation to Study 1, and to past research on the structure of implicit theories of listening (Bodie et al., 2012), this study applies the logic of LET to CC, LC, and SS as well as a subset of the putatively subordinate attributes. Drawing from LET allows us to more clearly adjudicate among the competing hypotheses presented in Figure 1, as this method allows for degrees of nonindependence rather than the strict criterion used in Study 1. We chose to focus this study on five primary attributesfriendly, attentive, responsive, adept at keeping a conversation flowing, and understanding—and all three of the competencies—"communicatively competent," "competent listener," and "socially skilled." We focus on these attributes because in a prior study (Bodie et al., 2012) they were found most strongly associated with listening competence as a potential nuanced evaluative category lying on a basic level of abstraction. Results from Study 1, however, suggested that only one of the attributes (attentiveness) was uniquely associated with LC. Consequently, using these attributes provides LC the best chance to be shown as a unique cognitive category evidence against this position using these terms seems least likely to be upended by future research.

#### Method

#### Participants

Undergraduate students (N=154; 67% female) enrolled in Communication Studies courses at Louisiana State University and Agricultural & Mechanical College (LSU A&M) participated in this study for partial fulfillment of a course research requirement. The mean age of those responding was 20.1 (SD=2.77) and most self-identified as Caucasian (n=124). Respondents consisted of 41.6% sophomores, 24.7% juniors, 17.5% seniors, and 15.6% first-year students. Although recruited through Communication Studies classes, 17 of the 19 university schools or colleges were represented.

#### Procedures

Study 2 was conducted in a computer lab designated for research. After providing informed consent as required by LSU A&M, participants were given general instructions about answering the if/then statements. The computer then presented statements, one at a time in a different, random order for each participant, along with

			Mean	95% Confid of the I	lence Interval Difference
	t	Р	Difference	Lower	Upper
LC Attributes					
Understanding	-2.02	.05	-0.396	008	784
Attentive	1.75	.08	0.338	045	.720
Responsive	-1.77	.08	0.357	755	.041
Friendly	-1.64	.10	-0.312	686	.063
Conversational Flow	-1.06	.29	-0.214	614	.185
SS Attributes					
Attentive	2.81	.006	0.578	.172	.984
Friendly	-3.15	.002	-0.610	228	993
Responsive	-4.85	<.001	-0.903	535	-1.271
Understanding	1.28	.20	0.247	133	.627
Conversational Flow	.61	.55	0.091	.388	.206
CC-Attributes					
Responsive	4.07	<.001	0.669	.344	.993
Attentive	2.26	.03	0.416	.052	.779
Understanding	2.26	.03	0.396	.050	.743
Friendly	.59	.56	0.110	258	.479
Conversational Flow	.17	.87	0.026	335	.283
SS-CC-LC					
CC-LC	4.34	<.001	0.857	.467	1.247
SS-CC	-2.86	.005	-0.500	155	845
SS-LC	-1.88	.06	-0.357	732	.018
Attributes					
Understanding-Attentive	4.22	<.001	0.799	.425	1.172
Responsive-Attentive	3.69	<.001	0.747	.347	1.147
Friendly-Responsive	3.65	<.001	0.604	.277	.931
<b>Conversational Flow-Responsive</b>	3.11	.002	0.481	.175	.786
<b>Conversational Flow-Attentive</b>	2.42	.02	.390	.072	.707
Friendly-Attentive	1.84	.07	.331	025	.687
Understanding-Responsive	1.77	.08	.351	040	.742
Conversational Flow-Friendly	1.71	.09	.299	047	.645
Understanding-Conversational Flow	.998	.32	.201	197	.600
Understanding-Friendly	.86	.39	.143	186	.471

 Table 4
 Pairwise Asymmetrical Relations for Study 2

*Notes.* SS = Social skills; CC = Communicative Competence; LC = Listening Competence. Negative mean difference values suggest that the second trait implies the first to a greater extent than the first trait implies the second. Positive mean difference values suggest that the first trait implies the second to a greater extent than the second trait implies the first. Results in bold met a conventional level of statistical significance.

a 9-point scale (1 = Strongly Disagree, 9 = Strongly Agree). For this study, we focus on the subset of 28 statements that crossed all combinations of the following five attributes—friendly, attentive, responsive, adept at keeping a conversation flowing, and understanding—and all three of the competencies—"communicatively competent," "competent listener," and "socially skilled." Thus, participants answered the degree to which they agreed (or disagreed) with each of the 28 if/then statements, after which they were thanked for their participation and rewarded with a small amount of course research credit (1.5% of the course grade).

#### Results and Discussion

The first step in data analysis was to compute difference scores for each pair of terms used in this study (N=28) (see Orehek et al., 2010). A multivariate within-trait pair association difference model that included all 28 difference scores suggested overall asymmetry,  $\Lambda = .58$ , F(28, 127) = 3.44, p < .001, partial  $\eta^2 = .42$ . To ascertain the nature of this asymmetry, we conducted a series of one-sample *t* tests for the individual discrepancy scores to see which pairwise relations were significantly greater than zero.<sup>3</sup> Exactly half of the trait-pair difference scores are greater than zero suggesting that half of the trait-pair relations are asymmetrical and half are symmetrical. Table 4 provides a summary of these results.

The critical test for determining support for one or more of the competing hypotheses is to look at the trait-pair relations for the attributes under each implicit theory and those for the implicit theories. The multivariate results for these comparisons are presented in Table 5 and suggest that there is overall asymmetry for all relations except the attributes and LC. This result provides little support for either H2 or H3 and suggests that LC is not likely a central, organizing implicit theory. The trait-pair relations for LC and the attributes presented in Table 4 provide added support for this conclusion. Of these relations, only the relation between LC and understanding achieved a conventional level of significance; however, the lower bound estimate for the 95% confidence interval was nearly zero suggesting that LC has primarily symmetrical relations with the various attributes.

Multivariate Delation	4	Γ ( 4Δ	<b>5</b>	Doutial u <sup>2</sup>
Multivariate Relation	Л	F(af)	р	Partial $\eta$
SS Attributes	.82	8.44 (4, 150)	<.001	.18
CC Attributes	.90	4.10 (4, 150)	.004	.10
LC Attributes	.95	2.17 (4, 150)	.08	.05
SS-CC-LC	.86	12.54 (4, 150)	<.001	.14

**Table 5** Multivariate Results for Assessing Unique Competency-Trait and Competency-<br/>Competency Relations for Study 2

*Notes:* SS = Social Skills; CC = Communicative Competence; LC = Listening Competence. Power to detect the multivariate effect was .34 for small effects, .78 for moderate effects, and .90 for large effects.

For the trait-pair relations among SS and the attributes, it appears that SS is a more central trait than two of the attributes (attentive and friendly); responsive appears more central than SS, and SS implies both understanding and conversational flow as strongly as each of these attributes imply SS.

CC is a more central trait than three of the attributes (attentive, responsive, understanding) and implies both conversational flow and friendly as strong as each of these attributes imply CC.

For the SS-CC-LC relations displayed in Table 4, SS implies LC as strongly as LC implies SS, and CC implies LC and SS more strongly than either SS or LC imply CC. Combined with the results relevant to SS and the attributes and CC and the attributes, it appears that CC is a central organizing implicit theory, providing the most support for H1.<sup>4</sup>

#### **General Discussion**

Since Wiemann's (1977) formative work, the study of how people are judged as competent interlocutors has been a mainstay for communication scholars. Notwithstanding its importance, however, very little research has been conducted on the relations among various trait-level judgments people are said to make about others and the degree to which some traits can be described as central in the judgment process. This is especially true with respect to listening competence. Indeed, the literature on listening competence is not found in the mainstream communication journals and is underrepresented in theories that attempt to explain competence in communication (Bodie, 2011, 2012; King, 2008; Wolvin, 2010). Listening is primarily defined as a collection of verbal and nonverbal responses that signal attentiveness, responsiveness, involvement, understanding, and friendliness to another person, though empirical data linking listening to these attributes were lacking until recently (Bodie et al., 2012). This article adds to our understanding of the potential relations among various attributes such as attentiveness and understanding and the associated cognitive constructs that implicate them. Interestingly, manuscripts devoted to communicative competence, social skills, and competence in listening often discuss the same attributes (and oftentimes behaviors) with little discussion of how these implicit theories may overlap; empirical support for these claims is even rarer. This is true both for studies that derive lists of attributes from theory as well as those that have participants derive lists describing their lay conceptualizations. Study 1 provided initial evidence that only a small portion of subordinate attributes are uniquely related to any one of the three primary competency constructs — nearly 60% of the attributes seemed simultaneously related to both communicative competence and social skills (n = 19; 40.4%) or all three constructs (n = 8; 17%).

Results from Study 2 move this line of research in the direction of examining the lay epistemic perspectives people have and whether they view certain traits as more central than others. From the perspective of LET, a trait is central to the extent that it constitutes subjectively relevant evidence for a social judgment. Our data suggest that only one of the implicit competency theories garnered sufficient evidence of

centrality: Communicative competence implicated lower order attributes to a greater degree than the attributes implicated it and also implicated SS and LC to a greater degree than the reverse. Thus, it appears that communicative competence can be considered central. These data are certainly consistent with the work of Pavitt but additionally provide a unique implicational rule for the relation between communicative competence and other trait-level judgments as well as a unique methodological paradigm to continue investigating the nature of implicit competency theories.

Taken together, both studies provide empirical evidence for the relative placement of implicit theories of listening competence such that competence in listening seems to be one among many more subordinate (peripheral) attributes subsumed under communicative competence. This is not to say that implicit theories of listening are any less important than proposed in the scholarly, lay, and textbook literatures alike. It is possible, for instance, that people are judged as competent (or incompetent) listeners based on a range of unique behaviors that do not necessarily directly signal communicative competence. Indeed, to be judged as a competent listener may be a primary way in which individuals can be judged as competent communicators, and our two studies provide the first empirical demonstration of the connections between communicative and listening competence. If listening is a primary path through which people are judged as competent communicators and our model of how this works withstands future empirical scrutiny, much more attention should be afforded to listening competence and how it is constructed in the minds of interlocutors based on the specific actions of others as well as how to train this important life skill.

#### Limitations and Future Research Directions

Perhaps the primary limitation of our studies was the reliance on white undergraduate students enrolled in courses that focus on communication. Although the complete rejection of our results merely based on our sample is extreme (Shapiro, 2002), the fact that implicit theories likely vary depending on individual difference factors such as ethnic or cultural background, age, income, and education (Fehr, 2006) should at least temper our conclusions until future research explores these issues with different samples drawn from distinct, and perhaps more general, populations. Certainly, students had likely been exposed to at least one model of competency in their studies, so the degree to which knowledge about communication might have influenced results remains an empirical question. Likewise, instructions in each study referenced initial interactions. The extent to which unique contexts produce variation in implicit theories of competence or whether our results can be extrapolated to a variety of contexts (e.g., supportive communication, conflict) should be explored in future work.

In addition, our studies are imbedded within models of human perception and judgment that hold particular assumptions about impression formation, memory, and related constructs. In particular, prior work on implicit theories of communication seems based (implicitly) on an associationist account, which assumes traits are stored according to bidirectional linkages. A focus on bivariate relations among attributes similarly obscures other potential relations. Our results suggest that there are many trait associations that are not bidirectional but unidirectional; however, there were as many bidirectional findings as unidirectional. Thus, our assumption about the associations among communicative competence and other traits should be empirically tested against other possible associative frameworks. In addition, research should continue to explore the shared and unshared attributes between various competencies since Study 2 was limited to a subset of the larger possible if/then statements.

Limitations notwithstanding, the two studies presented above provide an initial theoretical model for the study of how listening competence is constructed in the minds of interlocutors, and future work should certainly modify and extend it. Moreover, research on listening competence should no longer be conducted outside of the larger theoretical landscape of communicative competence, and vice versa. The goal of research, as Berger (2005) noted, is not to simply observe that phenomena happen in patterns but to explain why phenomena occur and the reasons behind the observed patterns. Hypotheses such as those presented above have the potential to take research in new directions, leading to a clearer understanding of situational variability in judgments of competency. Explaining the most basic, cognitive aspects of such patterns is fundamental to proposing broader theories, particularly theories as complex as why and how we judge the communicative competence of others. By exploring the dimensions of communication competence and situating listening competence within a larger framework, the "tangled web" (Conway, 1990) of thoughts used to make judgments of others begins to slowly unravel.

#### Notes

- [1] Participants were allowed to mark multiple identity categories.
- [2] Although traditional power analysis is not available for this technique, it is instructive to note that our results should be interpreted as a conservative estimate of nonoverlap. Indeed, two means (or for paired data the mean of the differences) can overlap and still be statistically different from each other (i.e., a *t* test with p < .05) (Cumming & Finch, 2005). Distributions that do not overlap generally meet p < .01.
- [3] We chose not to adjust the alpha level from the conventional .05 since this particular "family" of tests only represents a small sample of the possible number of pairwise tests available (D. J. O'Keefe, 2003). Moreover, decisions regarding alpha adjustment for this study could result in considering all 28 pair relations as the "family" or only those within a given multivariate relationship (e.g., CC-Attributes, n=5). We are comforted, though not engaged in wishful thinking (D. J. O'Keefe, 2007) by the fact that the overall multivariate test was both statistically significant and large, thus suggesting some pattern to the pairwise relations. In addition, we utilize the information from the more focused multivariate tests to suggest that LC has a primarily symmetrical relationship with attributes rather than using the one significant result within that "family" of tests to determine our discussion points. Power to detect a small effect for each dependent samples *t* test was .70, while power to detect a moderate or large effect was above .99.
- [4] For the sake of being thorough, we also ran the trait-pair relations for the attributes. As seen in Table 4, half were asymmetrical and half symmetrical. Within these traits, the only

consistent result seems to be associated with attentive; it appears that more of the attributes imply attentive than vice versa.

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