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SPOTLIGHT ON METHOD/ANALYSIS

Issues in the Measurement of Listening

Graham D. Bodie

Without a doubt, listening is a critical facet of human communication. Within the field of communication studies, a central concern for listening scholars has been developing models of listening competence and arguing for its palliative effects in various contexts. Most commonly, listening is viewed as having affective, cognitive, and behavioral components. The purpose of this article is to outline a few issues in the measurement of listening as an affective, cognitive, and behavioral phenomenon and to advocate for more integrated research efforts.

Keywords: Communication Competence; Hearing; Information Processing; Self-Report Measurement; Social Cognition

Listening represents "a kind of human behavior that almost everyone thinks important" (Weaver, 1972, p. 24). Good listening is posited as essential to managing conversations marked by conflict and support alike, and the positive outcomes of its employment range from academic and work success to individual and relational health and well-being (for review see Bodie, 2012). Unfortunately, while the praise of "good" listening is rather easy, articulating a clear idea of its constitution is more

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elusive. Perhaps because of conceptual and operational difficulties inherent in the study of listening, it is largely an assumed process that undergirds important communication functions (Bodie, 2011b).

Most commonly, listening is thought to consist of complex (a) cognitive processes, such as attending to, understanding, receiving, and interpreting content and relational messages; (b) affective processes, such as being motivated to attend to those messages; and (c) behavioral processes, such as responding with verbal and nonverbal feedback (e.g., backchanneling, paraphrasing; Halone, Cunconan, Coakley, & Wolvin, 1998). In this article, I briefly address issues that arise when attempting to measure listening as a cognitive, affective, and/or behavioral phenomenon and how communication scholars can more clearly delineate the effects of this important human activity. I conclude by urging scholars of human communication to advance our knowledge of listening by studying systematically the interrelationships among various listening constructs.

Listening as a Cognitive Process

Early work by Nichols (1948) set the agenda for communication scientists interested in listening for at least four decades, and his notion of "good listening" as the retention of aural information remains a popular conceptualization in both scholarly and textbook treatments of listening.[1] Most notably, the factors identified by Nichols were cited as the theoretical justification for the development of several commercial tests of listening comprehension (for review, see Watson & Barker, 1984). Although popular among researchers and teachers alike, measures of listening comprehension are error laden and have questionable validity portfolios.

Several studies employing factor-analytic techniques have found existing measures do not conform to theoretically posited models (Bodie, Worthington, & Fitch-Hauser, 2011; Fitch-Hauser & Hughes, 1987; Villaume & Weaver, 1996). Even with several attempts to discover underlying factors shared among tests, no test developer has forwarded a more comprehensive measure suitable for making claims relevant to how people retain information. Unfortunately, communication educators and researchers have few alternatives outside of modifying tests designed for second language learners, many of which measure little more than auditory discrimination (Buck, 2001).

In addition to measurement error, there is evidence for a lack of operational distinction between commercial listening tests and other constructs such as memory and intelligence (Kelly, 1965). One reason for this conflation is that the primary means of testing comprehension is by measuring recall ability, an important antecedent of listening, but not the entire process (Thomas & Levine, 1994). Advancing the study of listening beyond recall, Thomas and Levine (1994) utilized an interaction paradigm whereby participants engaged as a listener in a conversation with a confederate rather than answering questions from video or audio based material. They noted that while our theoretical and practical interests concerning listening are primarily in the realm of interaction, methods of testing listening often fail to produce knowledge about interaction per se. Other research utilizing participants within interaction also tends

to operationalize listening as memory for conversation, with explicit memory for facts (i.e., comprehension) stressed less than understanding meaning (Janusik, 2007; Stafford & Daly, 1984).

While an improvement, this research is not void of problems. First, the interview context does not allow generalization to contexts in which roles are less clear and instrumental goals are not the driving motive. Second, most cognitive measures of listening include instructions that prime participants to "listen carefully" or otherwise cue them to pay attention, thus likely overestimating abilities to retain and recall information (Fitch-Hauser & Hughes, 1992). Finally, the use of confederates ultimately focuses the research on one individual, "the listener," and thwarts the ability to understand communication as a transaction whereby both individuals coordinate joint actions and have few (if any) predetermined behavioral constraints (Clark, 1996). Although the use of confederates has its advantages and should be done when appropriate, this use tells us little about how listening operates within actual interaction and how and why it impacts people in their most important relationships.

Listening as an Affective Process

Although for some research purposes it is important to define "good" listening as the ability to retain factual information or to garner meaning from monologue, "[often] when we say that someone is a 'good listener' we mean that [he or she has] a good attitude about the process, rather than retentive ability" (Bostrom, 1990, p. 5). Similar to models of communication competence, those explaining what it means to engage in competent listening almost universally include an affective component (Wolvin & Coakley, 1994), which is often operationally defined as a *willingness to listen* (Richmond & Hickson, 2001; Roberts & Vinson, 1998). The most widely used scale for this purpose is the Informational Reception Apprehension Test (IRAT) (Wheeless, Preiss, & Gayle, 1997), which captures individual predispositions to (a) become impatient and anxious when listening to detailed information ("listening" subscale) and (b) enjoy listening to abstract information or to multiple sides of an issue ("intellectual flexibility" subscale).

In addition to a general willingness to listen (or to avoid listening), other measures tapping various affective components of listening also exist. Most of these measures can be classified as measures of (a) perceived listening competence (Ford, Wolvin, & Chung, 2000), (b) attitudes toward specific types of listening (e.g., active-empathic; Bodie, 2011a), (c) tendencies to focus on particular listening related goals (Watson, Barker, & Weaver, 1995), (d) predispositions to be involved during conversations (Cegala, 1984), and (e) individual belief systems about listening (Imhof & Janusik, 2006). Unfortunately, none of these scales has an impressive validity portfolio, and recent research suggests needed revisions for many. For instance, Bodie and Worthington (2010) recently investigated the psychometric properties of the most widely used measure, the Listening Styles Profile (LSP-16), reporting data inconsistent with the predicted measurement model. Problems were primarily the result of substantial measurement error associated with most of the scale items and high

standardized residual covariances. Similar statistical critiques are relevant for other measures (Bodie, 2010; Mickelson & Welch, 2012), and work is underway to develop more psychometrically sound instruments (e.g., Bodie, Worthington, & Gearhart, 2013), though much more work is needed. In addition to these statistical critiques, data bearing on convergent, discriminant, predictive, and nomological network validity are sparse, suggesting a fruitful line of research for scholars interested in examining these issues.

In addition, each of the aforementioned measures is most commonly utilized as a self-report scale, thus binding research to critiques of that measurement choice more generally (Cronbach, 1990). Although self-reporting listening is certainly not universally inappropriate—for instance, the Listening Concepts Inventory (LCI; Imhof & Janusik, 2006) assesses individual conceptualizations of listening akin to the work by O'Keefe (1988) on implicit theories of communication (i.e., message design logics)—most scales are aimed at assessing the general enactment of specific behaviors, a rather large leap from the intention of these measures to tap general affective tendencies. For instance, the responding subscale of the Active-Empathic Listening Scale (AELS; Bodie, 2011a) includes items such as "I assure others that I am listening by using verbal acknowledgments" while the Self-Perceived Listening Competence scale (SPLC; Ford et al., 2000) includes items such as "I can interpret correctly persons' facial expressions." While attempts to assess the validity of self-reporting of listening behaviors are available (Bodie, Jones, & Vickery, 2012), most studies do not attempt to empirically dismiss other plausible explanations for found associations among measures of listening and important antecedents and consequences, such as common method variance. Other research assumes that different perspectives (e.g., direct supervisors versus peers) are driving variability in scores without submitting such speculations to full tests (Cooper & Husband, 1993). This state of affairs is perplexing for two primary reasons. First, listening is a socially desirable behavior, and listening behavior may be even more suspect to social desirability effects than other communication actions (Lawson & Winkelman, 2003). Second, statistical techniques are readily available to address these issues. Finally, it seems that, irrespective of statistical and other operationally relevant concerns, what we are most interested in is what listeners *do* when interacting with others and whether the enactment of specific behaviors impacts important outcomes. If so, relying too heavily on self-report measurement for the advancement of knowledge about listening seems counterproductive.

Listening as a Behavioral Process

Of all the measurement choices available to those interested in listening, the least employed is the assessment of actual behaviors (Keaton & Bodie, 2012). Those behaviors include not only verbal responses indicating understanding or seeking clarity (e.g., asking questions) but also those nonverbal acts such as smiling and eye contact, generally discussed in the literature as nonverbal immediacy (Bodie, St. Cyr, Pence, Rold, & Honeycutt, 2012). Perhaps one reason for this state of affairs is the costs of

such research. It is far less time- and labor-intensive to collect a battery of self-report scales than it is to videotape conversations or group discussions. Indeed, behavioral listening research raises extensive logistical issues. Not only do researchers have to choose the context of listening (e.g., conflict, support, initial interaction), but they also have to consider whether these interactions will involve strangers, acquaintances, friends, or romantic partners; how long the conversation will last; whether to assign participants to roles or let the conversation unfold in a more naturalistic manner; and the list goes on. Before these decisions, the researcher has to have the capacity for data collection—video cameras, recording software, laboratory space (or ability to capture dialogue as it happens outside the lab), and research assistants are the minimum requirements, with many studies necessitating monetary compensation of participants. In addition, while it may take only a few weeks to adequately sample for a self-report study, collecting behavioral data takes several months or years, depending on the scope of the project. Likewise, while self-report data are easily analyzed using readily available statistical packages, behavioral data have to be coded, transformed, or otherwise handled in line with specific theoretical and practical purposes. Decisions relevant to this latter issue are not easy to make, especially when research interests go beyond readily available coding rubrics or established rating scales.

Even so, behavioral data are rich and can offer insights not afforded by self-reports. As an excellent example, Bavelas and colleagues have spent several decades exploring the listener as addressee, or "the person the speaker is addressing directly and who can respond to and interact with the speaker in a dialogue" (Bavelas & Gerwing, 2011, p. 180). Perhaps most important is that the addressee is a "full partner in creating the dialogue" (p. 180). Presently, our knowledge of listening comes primarily from work interested in aural information reception, leaving us with a simplified and perhaps erroneous view of how listening actually works in our everyday conversations and the impact it likely has on important outcomes. Attending to how the listener contributes to dialogue shifts the notion of listener as a passive recipient and retainer of information to active constructer of meaning.

Work stemming from Bavelas's lab utilizes a methodological technique called microanalysis, "the detailed and reliable examination of observable communication sequences as they proceed moment by moment" (Bavelas & Gerwing, 2011, p. 184). In order to use the method the researcher must have access to videotaped conversations between two (or more) individuals who are visible and audible at all times. In addition, access to a software program that allows frame-by-frame viewing is necessary; Bavelas recommends ELAN, maintained and offered for free download by the Max-Planck Institute for Psycholinguistics (http://tla.mpi.nl/tools/tla-tools/elan). The method is labor-intensive, often requiring multiple hours of watching and coding for a single video, and this only after the researcher has made decisions regarding which behavior(s) to analyze systematically. Even more labor is involved if the researcher takes an inductive approach (Bavelas, 1987).

The operations of various listener behaviors are viewed by the Victoria Group through Clark's collaborative model and the notion of grounding, a sequential process engaged in collaboratively by speaker and addressee that results in mutual

understanding (Clark, 1996). Research suggests that when listeners are allowed to freely participate in grounding, the speaker tells a more coherent story (primarily fostered by behaviors such as backchanneling; for review see Bavelas & Gerwing, 2011). Although this is an important contribution to theory and practice, missing from this research is a focus on outcomes deemed important in the personal and professional lives of interlocutors. That is, while we know with great precision what listening looks like in naturalistic dialogue, we are unfortunately unable to document the impact of specific behaviors and their relative importance in contributing to individual health and well-being, relational satisfaction, affect improvement, liking, rapport, and a range of other outcomes.

A Plea for Integrated and Theoretically Sophisticated Research

Without a doubt, listening is a critical facet of human communication. Listening is important across the life span and within a range of contexts and relationships—to "be heard" and to "be listened to" are important from the cradle to the grave. Even so, the attention afforded listening by scholars of human communication wanes in comparison to other processes (e.g., message production), even though "these processes are intimately intertwined" (Berger, 2011, p. 105). Of the research on listening conducted to date, most tends to focus on the individual listener and the cognitive and affective components of the process. Much less is known about the specific behaviors that constitute "good listening" and their connection to important outcomes. Likewise, the interrelationships among the three components of listening are also vastly understudied.

In a presentation to the International Communication Association last May, my colleagues and I reported a study that found that what listeners say they do (self-report behavior) is not strongly related to the behaviors actually enacted in this role. In other words, there is a difference in the way I assess the quality of my own listening behavior and the way an observer may assess the quality of the same behavior (Bodie, Jones, & Vickery, 2012). The multitrait–multimethod correlation matrix we constructed from our data seems to suggest that various operationalizations of listening (e.g., self-reports, other-reports, partner-reports, coder impressions) are tapping different constructs. Perhaps most discouraging is the large common method variance we found, the implications of which include calling into question listening research relying on a single method (and perhaps focusing on a single component) to forward claims about the listening process more generally. Unfortunately, that includes the majority of past research.

Perhaps even more important than the construct validity of various ways we might operationalize listening is the need to take seriously how we theorize about "the listener." The research just reviewed suggests several questions, answers to which are obligatory to a field interested in how people communicate: How are the various components of listening (whatever they might be) theoretically related? What are the various patterns of listening found in naturalistic dialogue in various contexts? Among discovered patterns, what dimensions seem to underlie their similarities

and differences? Does engaging in particular listening responses influence the way in which I process information (or vice versa)? Does contributing to dialogue as a particular type of listener influence its trajectory? How do people assess the listening competence of interlocutors? What are the relationships among particular listening behaviors and theoretically relevant outcomes? And while posing the questions is fun, more enjoyable is knowing that the field is ripe for studying such a fundamentally important yet largely overlooked communicative phenomenon. Future work will require various operational decisions including the creation of new, theoretically appropriate methods and the winnowing of those which no longer produce adequate grain. I, for one, am looking forward to the harvest such research bears.

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Note

[1] I wish to point out here that the focus of this article is on *one* branch of research on listening, which, though large, in no way constitutes the entirety of the tree. As such, this article essentially "ignores" other, equally valid conceptualizations (Gehrke, 2009). The interested readers is directed to the following sources for alternative conceptualizations of listening: Beard (2009), Ihde (2007), Lipari (2009, 2010), and Purdy (2000).