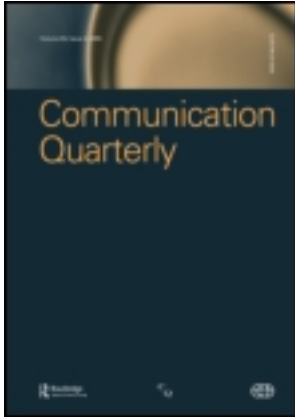


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Graham D. Bodie^a, Debra L. Worthington^b & Christopher C. Gearhart^a

^a Communication Studies, Louisiana State University

^b Department of Communication & Journalism, Auburn University

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The Listening Styles Profile-Revised (LSP-R): A Scale Revision and Evidence for Validity

Graham D. Bodie, Debra L. Worthington, & Christopher C. Gearhart

The Listening Styles Profile (LSP-16) is the most widely used self-report listening instrument in the communication discipline. Unfortunately, researchers have utilized the instrument despite its uncharacteristically low reliability estimates and unvalidated factor structure. The following manuscript presents results from two studies designed to address these limitations. Study 1 proposes a revised measure (Listening Styles Profile-Revised; LSP-R) based on four factors: relational, analytical, task-oriented, and critical listening. Study 2 was designed to further refine and provide validity evidence for the revised scale. Internal consistency estimates and latent variable test–retest correlations showed the LSP-R to be consistent over repeated administrations; the factors were related to number of listening, information processing, empathy, communication trait, and personality variables. Beyond identifying orientations toward attending to others, the instrument developed here possesses heuristic potential for investigating the role and positive potential of listening within a variety of specific research agendas and theoretical perspectives.

Keywords: Construct Validity; Information Processing; Listening Styles; Message Reception; Scale Development

Understanding the ways individuals attend to people and information in social settings can appreciably enhance our understanding of human communication and

Graham D. Bodie (Ph.D., Purdue University, 2008) is an Assistant Professor in Communication Studies at Louisiana State University. Debra L. Worthington (Ph.D., University of Kansas, 1994) is an Associate Professor in the Department of Communication & Journalism at Auburn University. Christopher C. Gearhart (Ph.D., Louisiana State University, 2012) is an Instructor in Communication Studies at Louisiana State University. *Correspondence:* Graham D. Bodie, Communication Studies, Louisiana State University, 136 Coates Hall, Baton Rouge, LA 70803; E-mail: gbodie@lsu.edu

related phenomena. Listening to others affects how information is remembered and used, and the ways we listen to others powerfully affects individual and relational health and well-being, upward organizational mobility, and how we are seen by others (for review, see Bodie, 2012). Although the goal-directed nature of speaking and listening have long been recognized within the communication discipline, the latter has been afforded much less research attention (Bodie, 2011b). Watson, Barker, and Weaver (1995) proposed the construct of *listening style*—characteristic or habitual ways of listening—as an individual difference thought to explain variability in how people attend to and process information, especially in conversational settings. To date, the Listening Styles Profile (LSP-16) remains the most widely used self-report measure in the communication discipline to assess listening-related goals (Rubin, 2009), despite convincing reasons to question the scale's construct validity (Bodie & Worthington, 2010). Given the importance of listening styles to a range of outcomes, the concept and its measurement deserve attention. Accordingly, this manuscript briefly reviews the concept of listening styles and summarizes the principal critiques of its primary operationalization. Two studies then introduce and provide validity evidence for a revised scale.

Listening Styles Revisited

Watson et al. (1995) defined listening styles as “attitudes, beliefs, and predispositions about the how, where, when, who, and what of the information reception and encoding process” (p. 2). In particular, they identified four listening orientations—people, action, content, and time—that individuals habitually orient toward, especially in novel situations (Imhof, 2004). People-oriented listeners were described as primarily concerned about the “emotional states” of others (Watson et al., 1995, p. 5), and research has appropriately found this style associated with a relationally oriented communication style (Bodie & Villaume, 2003), the Myers–Briggs feeling construct (Worthington, 2003), empathic tendencies (Weaver & Kirtley, 1995), conversational sensitivity (Chesebro, 1999), and verbal benevolence (VB) (Villaume & Bodie, 2007; Worthington, 2005). The focus of an action-oriented listener is on errors and inconsistencies as opposed to emotions and is often described as task-oriented, reflecting the association between this style and the Myers–Briggs thinking, sensing, and judging constructs (Worthington, 2003). Content-oriented listeners are described as systematic information processors and score higher on measures of need for cognition (NFC) (Worthington, 2008) and conversational sensitivity (Chesebro, 1999). Finally, time-oriented listeners tend to verbalize the limited amount of time they are willing or able to devote to listening and are likely to interrupt others and openly signal disinterest (Watson et al., 1995).

The primary measure of these four styles is the LSP-16, which asks participants to report how well each of 16 statements (4 for each style) applies to them on a 4-point scale (*never–always*) (Watson et al., 1995). The LSP-16 is described as the “research version” of the original 24-item listening preference profile, a measure that was refined from an original pool of 30 items using principle components analysis (PCA).

Limitations of the LSP-16

Studies utilizing the LSP-16 consistently report reliability estimates in the range of .50 to .60 for most of the subscales (for review, see Bodie & Worthington, 2010), calling into question the results of past research and signaling scale-related problems. Although low internal consistency is problematic, the primary limitation of the LSP-16 is that scholars have administered and reported results assuming an established factor structure. The only statistical technique used to generate the scale was PCA, a method that produces an empirical summary of a data set as opposed to a “theoretical solution uncontaminated by unique and error variability” (Tabachnick & Fidell, 2007, p. 635); thus, subsequent reports utilizing the scale have been blindly reporting on a questionable instrument (for further discussion of PCA and confirmatory factor analysis [CFA], see Park, Dailey, & Lemus, 2002).

Problems with the LSP-16 were recently confirmed by Bodie and Worthington (2010) who reported data inconsistent with the predicted measurement model. The poor model fit in their study was primarily the result of substantial measurement error associated with most of the scale items and high standardized residual covariances; this latter result is in line with exploratory analyses finding only about half of the variance in the 16 items explained with four components. In addition to these statistical critiques, data bearing on convergent, discriminant, predictive, and nomological network validity are sparse (Rubin, 2009). Based on these criticisms and the importance of a viable scale to assess the goal-directed nature of listening, the studies reported in this article attempt to develop and provide initial validity evidence for an updated measure of listening styles: the Listening Styles Profile-Revised (LSP-R). Doing so, we are committed to the assumption that individual differences in preferences for receiving information exist and have important implications for social and communicative behavior, an assumption shared across the academic landscape (e.g., Berger, 1989; Cutler & Clifton, 1999), though the work of generating adequate measurement for these individual differences is less common. In Study 1, we sought to identify initial scale factors using a pool of items. Study 2 then added similarly worded items, tested the LSP-R measurement model over time with independent data, and tested the concurrent validity of the LSP-R by assessing the relationships among the various styles and other theoretically related constructs.

Study 1: Scale Construction and Preliminary Factor Structure

An initial pool of 57 items included (a) the original LSP-16, (b) items from an additional published and available listening styles scale (Listening Styles Inventory [LSI]; Pearce, Johnson, & Barker, 2003), and (c) new items written to reflect demonstrated relationships among listening styles and related variables. Although originally developed in the business environment, the ten items constituting the LSI are all quite general; indeed, there is nothing in the items making them unique to managers or unrelated to other populations. For instance, one item reads “I like to hear the complete message before making judgments about what the speaker has said,” which

is operationally similar to items contained in the content-orientation subscale of the LSP-16. Likewise, another item reads similarly to items on the LSP-16's action-orientation scale: "I ask questions when I don't fully understand a speaker's message." Owing to results from Bodie and Worthington's (2010) study that found substantial measurement error associated with most LSP-16 items and past work finding consistently low internal consistencies for scores generated from the LSP-16 subscales, we also wrote 31 additional items in line with conceptual definitions for the 4 LSP-16 styles provided in Barker and Watson (2000). For instance, we wrote the item "When listening to others, it is important to understand the feelings of the speaker" to reflect the relationally oriented style of people listeners and the item "I enjoy listening to detailed explanations of things" to reflect the value for technical information purported for content-oriented listeners.¹

Method

Participants

Undergraduates ($N = 409$; 246 female, 162 male, 1 missing) enrolled in communication studies courses at Louisiana State University reported an average age of 20.39 ($SD = 2.68$) and were primarily Caucasian ($n = 334$). A small amount of course credit (1.5%) was awarded for participation.

Procedures

After providing informed consent, students were asked to complete, in a random order, the 57 items (*never* = 1, *always* = 4). Demographic items followed.

Results and Discussion

Inspection of individual items suggested each was unimodal. The dataset contained a small amount of missing data (<1%), thus values were imputed with the mean of similar items (Tabachnick & Fidell, 2007). As a test of the underlying factor structure, items were subjected to an exploratory factor analysis (EFA) using principle axis extraction. Parallel analysis (Hayton, Allen, & Scarpello, 2004) suggested a five-factor solution. Review of various matrices produced from different rotation strategies (see Johnson & Wichern, 2002) revealed that the fifth factor had no substantial item loadings (i.e., all loadings <.50). Thus, a four-factor solution was retained (41.84% of item variance). The pattern and structure matrices from an orthogonal rotation were used to retain items and label factors (see Table 1 for estimates of internal consistency).

The first factor, relational listening (RL), contained six items that focused on the degree to which an individual listens to understand emotions and connect with others (e.g., "When listening to others, it is important to understand the feelings of the speaker"). This factor appears to align with the LSP-16's people-oriented style. The second factor, task-oriented listening (TOL), included three items indicative of seeing listening as a simple transaction (e.g., "When listening to others I tend to

Table 1 Internal Consistency Estimates and Bivariate Correlations Between LSP-16 and LSP-R, Study 1

	Original LSP-16				Revised LSP			
	1	2	3	4	5	6	7	8
1. People	.63							
2. Action	.04	.53						
3. Content	.24**	.29**	.51					
4. Time	.00	.32**	.09	.68				
5. Relational	.71**	-.05	.19**	-.04	.80			
6. Analytic	.32**	-.01	.30**	-.03	.39**	.79		
7. Critical	.11*	.57**	.41**	.06	-.01	.13**	.76	
8. Task oriented	.05	.65**	.09	.35**	-.13**	-.04	.29**	.67

Note. Internal consistency estimates (Cronbach's alpha) are presented along the diagonal.

* $p < .05$, ** $p < .01$.

concentrate on the task at hand"). Becoming impatient with seemingly unorganized others was a key characteristic of the action-oriented style; TOL seems to maintain this focus on the task as opposed to the person. The third factor, critical listening (CL), contained three items that revealed a natural tendency to focus on inconsistencies and errors while others speak (e.g., "I often catch errors in others' logic"). This factor seems to cross action- and content-oriented listening from the LSP-16, providing some validity to prior work finding much similarity in these orientations. The final factor, analytical listening (AL), contained four items that describe a tendency to withhold judgment about another's ideas and consider all sides of an issue before responding (e.g., "I tend to withhold judgment about another's ideas until I have heard everything they have to say"). Being non-judgmental was a defining feature of the people-oriented style, and attempting to look at all sides of an issue a defining feature of the content-oriented style. Although these 16 items appear to maintain the integrity of the conceptual makeup of the LSP-16, only 2 of the original items were retained: "I am impatient with people who ramble on during conversations" and "When listening to others I focus on any inconsistencies and/or errors in what's being said."

The correlations in Table 1 provide some support for the speculations regarding the relations among the new and old style structures. In particular, correlations reveal RL is highly associated with the original people-orientation, AL is moderately correlated with both the people- and content-orientations, CL is highly correlated with the action subscale and moderately correlated with the content subscale, and TOL is highly correlated with the action subscale and moderately with the time subscale. Thus, the LSP-R seems to retain one factor oriented toward relationship building and listening for emotions. The remaining three subscales appear to blend various features of the original styles, which is consistent with past research finding that the action-, content-, and time-orientations are often correlated with other variables

in similar ways (e.g., Bodie & Villaume, 2003). In general, the blending of the action-, content-, and time-orientations of the LSP-16 seems to highlight the inconsistencies and problems associated with an unestablished factor structure.

Study 2: Temporal Stability of and Validity Evidence for the LSP-R

Study 2 was designed with three goals in mind. First, we sought to further refine our scale. As might be expected in an item generation study, not all of the new scales produced desirable levels of internal consistency in Study 1. Using the Spearman–Brown Prophecy Formula, reliabilities of .86 and .80 for the CL and TOL scales are expected by doubling their size to six items each; two items also were added to the AL scale for consistency. In addition, in order to mitigate possible range restriction, we changed the response choices to a 7-point Likert scale.

Our second goal was to empirically validate the factor structure of the LSP-R over time. Toward this goal, the 24-item LSP-R was administered at two time points to a sample of U.S. undergraduate students. To empirically demonstrate stability (or lack thereof), we utilized multigroup confirmatory factor analytic procedures and tested for two primary types of invariance (see Byrne, 2010; Little, 1997). First, weak measurement invariance deals with the psychometric properties of the scale and includes *configural* invariance (same factor structure holds across time), *metric* invariance (factor loadings are equal across time), *scalar* invariance (loadings and intercepts are equal across time), and *strict* measurement invariance (loadings, intercepts, and item error variances are equal across time). Second, strong measurement invariance addresses between-group differences in latent means, variances, and covariances. Estimating latent correlations as opposed to more traditional approaches helps control for measurement error and mitigates concerns about Type I and II errors (Sharma, Durvasula, & Ployhart, 2012). For tests of single measurement models, we examine the comparative fit index (CFI), standardized root mean square residual (SRMR), and root mean square error of approximation (RMSEA) (Kline, 2005). To test measurement invariance, we examine change in these indices using a cutoff criterion of .01 (Cheung & Rensvold, 2002).

The final goal of Study 2 was to provide initial validity evidence for the LSP-R. To do so, we included (a) a measure assessing individual conceptualizations of listening and (b) a self-report instrument assessing five dimensions of listening competence; both were included to demonstrate divergent validity. In addition, we included a variety of individual difference measures to explore concurrent validity. Each validity measure can be grouped as a measure of (c) information processing (normative message processing [NMP], need for cognitive, need to evaluate [NTE]), (d) empathy (empathic concern [EC], perspective taking [PT], emotional contagion [ECG], communication response), (e) a communication disposition (verbal aggressiveness [VA], VB), or (f) personality (extraversion, psychotocism, neuroticism). Although the styles assessed with the LSP-R are not isomorphic to those measured with the LSP-16, the predictions outlined in Table 2 represent expectations that are in line with past

Table 2 Predictions and Results for Bivariate Relationships Between Individual Listening Styles and Validity Variables, Study 2

	Predictions				Results			
	RL	AL	TOL	CL	RL	AL	TOL	CL
LCI-relational	+		–		.15*	.08	–.07	.15*
LCI-critical				+	.18**	.06	.08	.13*
LCI-information acquisition		+			.15*	.13*	–.06	.08
LCI-learning		+			.25**	.08	–.10	.04
Discriminative ability	+	+		+	.42**	.25**	.06	.26**
Comprehension ability	+	+		+	.53**	.41**	–.08	.24**
Therapeutic ability	+		–		.65**	.47**	–.22**	–.03
Critical ability			+	+	.41**	.40**	.10	.39**
Listening appreciation	+	+	–		.63**	.38**	–.16*	–.01
Systematic-analytic processing		+	–		.37**	.51**	.01	.17**
Intuitive processing		–	+		.25**	–.13*	–.04	–.07
NFC		+	–	+	.09	.15*	–.08	.30**
NTE		+	–	+	.09	.05	.09	.27**
VA	–		+		–.28**	–.22**	.30**	.09
VB	+		–		.41**	.34**	–.19**	–.02
EC	+				.48**	.20**	–.16**	–.04
PT	+	+	–	+	.38**	.56**	–.20**	.09
ECG	+				.13*	–.17*	–.00	–.19**
CR	+		–		.43**	.31**	–.20**	.10
Extraversion	+				.32**	.27**	–.07	.11
Neuroticism	–				.08	–.08	.05	–.07
Psychoticism	–	–	+		–.38**	–.10	.04	–.03

Note. LCI = Listening Concepts Inventory.

* $p < .05$, ** $p < .01$.

research (for review, see Bodie & Fitch-Hauser, 2010) and the empirical similarities among the styles discovered in Study 1.

Method

Participants and Procedures

Data were collected at two time periods in the same facilities as Study 1; no Study 1 participants were allowed to participate in Study 2. Participants who signed up for and completed the Time 1 survey were invited to take the second between 14 and 45 days after ($M = 18.93$ days; $SD = 5.55$). The first survey was completed by 267 participants, and 228 completed the second. In the full dataset, there were 150 female and 77 male (one person did not report biological sex) participants reporting an

average age of 20.43 ($SD=2.51$) and primarily Caucasian ethnicity ($n=179$). Though participants were recruited through Communication Studies courses, 12 (out of a possible 17) academic programs were represented.

LSP-R

The 16 items retained from Study 1 along with eight new items were employed as the LSP-R. Participants indicated their level of agreement to each statement on 7-point Likert scales. Example items are presented in Table 3.²

Individual conceptualizations of listening

Imhof and Janusik (2006) proposed that individuals define listening as (a) relationship building, (b) organizing information, (c) learning and integrating information, or (d) a critical endeavor. A revised version of their original scale assesses these conceptualizations with 15 items on 5-point scales (Bodie, 2010). The scale was administered at both time points and exhibited weak and strong measurement invariance.³ The average score for each scale is used when computing correlations.

Listening competencies

The self-perceived listening competence (SPLC) scale (Ford, Wolvin, & Chung, 2000) was administered at each time point to assess individual ratings of their proficiency at discriminative (e.g., “I can interpret correctly persons’ facial expressions”), comprehensive (e.g., “I correctly recall information a few minutes after I hear it”), therapeutic (e.g., “I listen patiently to persons who are upset”), appreciative (e.g., “I enjoy listening to others”), and critical (e.g., “I carefully assess information as it is being shared with me”) listening. Each subscale has four items assessed on a 5-point Likert scale. After removing two items with low ($\lambda < .50$) standardized regression weights, the data conformed to the model at both times.⁴ Five subscales were subsequently computed; higher scores mean a higher perceived level of a given competency.

Table 3 Example Items for the LSP-R, Study 2

RL	When listening to others, it is important to understand the feelings of the speaker. I listen primarily to build and maintain relationships with others.
AL	I wait until all the facts are presented before forming judgments and opinions. When listening to others, I consider all sides of the issue before responding.
TOL	I am impatient with people who ramble on during conversations. I prefer speakers who quickly get to the point.
CL	I often catch errors in other speakers’ logic. When listening to others, I notice contradictions in what they say.

NMP

The NMP scale (NMPS), which assesses tendencies to engage in selective, analytical message processing (SAP) and unselective, intuitive message processing (UIP) (Aune & Reynolds, 1994) using 24-items, was administered at Time 1. Due to low item loadings and several high standardized residual values, only half of the scale could be retained (eight SAP items, $\alpha = .84$; four UIP items, $\alpha = .66$), $\chi^2(53) = 148.58$, $p < .001$, CFI = .90, SRMR = .07, RMSEA = .05 (CI 90% = .06, .10); $r = -.35$, $p < .001$.

NFC

NFC was assessed at Time 1 using the 18-item scale developed by Cacioppo, Petty, and Kao (1984), $\chi^2(135) = 241.26$, $p < .001$, CFI = .90, SRMR = .05, RMSEA = .05 (.04, .06). The 18 items were averaged with higher scores indicating higher NFC.

NTE

The 16-item NTE scale developed by Jarvis and Petty (1996) was administered at Time 1. After removing five items with low standardized regression weights ($\lambda < .50$), the final model was deemed acceptable, $\chi^2(44) = 123.97$, $p < .001$, CFI = .90, SRMR = .10, RMSEA = .08 (.07, .10). The 11 items were averaged with higher scores indicating higher NTE.

VA and VB

The 20-item VA scale (VAS) was administered at Time 1. The ten negatively worded items (e.g., "When individuals are very stubborn, I use insults to soften their stubbornness") tap a person's general propensity for VA, whereas the ten positively worded items ("I try to make people feel good about themselves even when their ideas are stupid") tap intentional attempts to support others during disagreement (i.e., VB) (Levine, Beatty, Limon, Hamilton, Buck, & Chory-Asada, 2004). After removing two items from the VA scale and one from the VB scale ($\lambda_s < .40$), the two-factor model fit the data, $\chi^2(118) = 197.33$, $p < .001$, CFI = .92, SRMR = .04, RMSEA = .04 (.03, .05). Although the two factors were highly correlated, $r = -.59$, $p < .001$, the one-factor model was statistically inferior, $\Delta\chi^2(1) = 249.57$, $p < .001$.

Empathy

Four dimensions of empathy—EC, PT, ECG, and communicative responsiveness (CR)—were assessed at Time 2 using items developed by Stiff, Dillard, Somera, Kim, and Sleight (1988). After removing one EC item and two each from the PT, ECG, and CR scales, the model was adequate, $\chi^2(113) = 201.59$, $p < .001$, CFI = .90, SRMR = .05, RMSEA = .056 (.043, .068). Scales were created by averaging items with higher values indicating higher EC ($\alpha = .75$), PT ($\alpha = .74$), ECG ($\alpha = .66$), and CR ($\alpha = .70$). Most scales were moderately correlated ($.21 < r < .47$); PT and ECG were not ($r = .02$).

Personality

Subscales for extraversion, psychoticism, and neuroticism were drawn from the Eysenck Personality Questionnaire, Short Form (EPQ-R) (Eysenck, Eysenck, & Barrett, 1985) and administered at Time 2. Five-point scaling bounded by *not-at-all* and *always* was used. Consistent with past work (e.g., Sato, 2005), the measurement model produced poor fit, $\chi^2(591) = 1,354.04, p < .001, CFI = .72, SRMR = .10, .10, RMSEA = .08 (.07, .08)$, which was localized to the *P*-scale. Given the extensive use of the scale, individuals were given a score on each of the three dimensions by averaging responses to items on each scale; higher numbers mean higher levels of a construct (*alphas*: $E = .90, N = .89, P = .66$).

Results

LSP-R model fit

Inspection of LSP-R items suggested that each was normally distributed and unimodal. Histograms provided visual evidence that items were less skewed than data from Study 1 suggesting a *strongly agree–strongly disagree* response option is preferred over the *always–never* option (average skewness value = $-.56; SE_{ave} = .16$). The dataset contained a small amount of missing data (<3%), which were imputed using the same procedures as used in Study 1.

To test the underlying factor structure of the LSP-R, items were subjected to confirmatory factor analyses:

Time 1: $\chi^2(246) = 494.85, p < .001, CFI = .92, SRMR = .06, RMSEA = .06 (.05, .07)$;
 Time 2: $\chi^2(246) = 509.20, p < .001, CFI = .92, SRMR = .07, RMSEA = .06 (.05, .07)$.

This four-factor model was compared to a one-factor and multiple two- and three-factor models, all of which produced significantly poor fit at both time points.³

As seen in Table 4, the multiple groups analysis revealed an adequate baseline (unconstrained) model, which was invariant at the measurement weights ($\Delta\chi^2$

Table 4 Model Fit Statistics for Measurement Invariance Analysis, Study 2

Configural	Weak invariance:		Strong invariance:	Strict invariance:
	measurement weights	Structural covariances	structured means model	measurement residuals
$\chi^2(492) = 1,004.04$	$\chi^2(512) = 1,035.22$	$\chi^2(522) = 1,041.86$	$\chi^2(536) = 1,063.98$	$\chi^2(546) = 1,121.28$
$p < .001$	$p < .001$	$p < .001$	$p < .001$	$p < .001$
CFI = .92	CFI = .92	CFI = .92	CFI = .92	CFI = .92
SRMR = .07	SRMR = .07	SRMR = .07	SRMR = .07	SRMR = .07
RMSEA = .045	RMSEA = .045	RMSEA = .045	RMSEA = .044	RMSEA = .046
(CI 90% = .04, .05)	(CI 90% = .04, .05)	(CI 90% = .04, .05)	(CI 90% = .04, .05)	(CI 90% = .042, .049)

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(20) = 31.18, $p = .053$) and structural covariances ($\Delta\chi^2(10) = 6.64, p = .76$). Strong measurement invariance was evaluated by adding a mean structure and constraining indicator intercepts to equality. No fit statistics indicated a decline in model fit ($\Delta\chi^2(14) = 22.12, p = .08$; see Table 4). Factor loadings were all above .50 and averaged .72 at Time 1 and .74 at Time 2. The reliability estimates for each subscale were as follows: RL, $\alpha_{T1} = .82, \alpha_{T2} = .86$; AL, $\alpha_{T1} = .91, \alpha_{T2} = .91$; TOL, $\alpha_{T1} = .88, \alpha_{T2} = .89$; and CL, $\alpha_{T1} = .86, \alpha_{T2} = .85$. To test the temporal stability of the LSP-R, Time 1 latent means were constrained to zero and Time 2 latent means freely estimated (Byrne, 2010). All latent means were invariant across time (RL: $Z = -1.20, p = .23$; AL: $Z = -.41, p = .68$; CL: $Z = -1.08, p = .28$; TOL: $Z = -.62, p = .54$). In addition, latent means of each style were highly correlated across survey administrations: relational, $r = .77$; analytic, $r = .71$; critical, $r = .80$; task oriented, $r = .81$.

Scales were created by averaging items for each scale. Four one-sample Kolmogorov–Smirnov tests indicated that scale distributions did not deviate significantly from normality ($Zs < 1.15, ps > .14$); inspection of skewness ($M = |.38|$) and kurtosis ($M = |.38|$) values confirmed these tests. Responses for the RL index ranged from 2.50 to 7.00 ($M = 5.30, SD = .79$); a similar range was exhibited by the AL index (2.33 to 7.00; $M = 4.77, SD = .99$). Responses for the TOL index ranged from 1.00 to 7.00 ($M = 5.08, SD = 1.15$); the CL index was similar (1.25 to 7.00; $M = 4.98, SD = .93$). Compared to a normal distribution whereby approximately 68% of the sample scores within ± 1 SD of the mean, the following percentages were found for each index: RL, 73.7% (+12.4%, -13.9%); AL, 64% (+17.6%, -18.4%); TOL, 64% (+18%, -18%); and CL, 64.8% (+18.6%, -16.6%).

Validity evidence

Table 2 presents the bivariate correlations between each listening style and each variable used to construct a case for validity. Of the 88 potential correlations, 51 (60%) were statistically significant. Of the 45 predictions outlined in Table 2, 33 (73.3%) were confirmed, leaving 18 unpredicted but statistically significant correlations; no correlation was opposite its prediction. Importantly for discriminant validity, the correlations between LSP-R and the other listening constructs did not suggest isomorphism.

To ascertain the degree to which each listening style is uniquely related to a set of the validity constructs, each style was regressed onto the set of validity measures, and a relative importance analysis was employed to estimate the contribution of each variable as a percentage of R -square (see Johnson & LeBreton, 2004). As seen in Table 5, the two primary contributors to variability in RL scores are perceived competence in appreciative and therapeutic listening. EC and self-perceived comprehensive competence also contributed to RL scores. These results provide validity to the description of RL as an orientation toward attending to and comprehending others' emotions. Evidence of validity for the AL scale primarily tapping an orientation toward close scrutiny of multiple sides of an issue is seen by the contribution of both PT and selective-analytical processing to its variability. As might be expected, CL was primarily explained by perceived competence in CL as measured by the SPLC

Table 5 Relative Importance of Listening, Information Processing, Empathy, Communication Dispositions, and Personality and Contribution to Listening Style Responses, Study 2

IV	RL		AL		TOL		CL	
	% <i>R</i> ²	Total % of RL	% <i>R</i> ²	Total % of AL	% <i>R</i> ²	Total % of TOL	% <i>R</i> ²	Total % of CL
LCI-relational	2.70	1.67	0.30	0.17	7.80	1.79	1.30	0.42
LCI-critical	0.80	0.50	1.60	0.91	3.10	0.71	0.60	0.19
LCI-information acquisition	0.50	0.37	0.50	0.29	2.60	0.60	3.00	0.96
LCI-learning	0.70	0.43	0.60	0.34	5.80	1.33	1.90	0.61
Discriminative ability	5.40	3.35	1.90	1.08	4.50	1.04	7.60	2.43
Comprehension ability	7.30	4.53	4.30	2.45	3.20	0.74	7.00	2.24
Therapeutic ability	15.00	9.30	5.70	3.25	3.80	0.87	2.50	0.80
Critical ability	4.60	2.85	7.30	4.16	8.80	2.02	28.00	8.96
Listening appreciation	19.30	11.97	9.60	5.47	9.10	2.09	4.80	1.54
Systematic-analytic processing	4.60	2.85	18.10	10.32	1.60	0.37	2.00	0.64
Intuitive processing	4.70	2.91	1.60	0.91	1.20	0.28	1.80	0.58
NFC	0.30	0.19	0.70	0.40	1.80	0.41	16.90	5.41
NTE	0.30	0.19	0.30	0.17	2.60	0.60	7.90	2.53
VA	2.90	1.80	1.80	1.03	20.00	4.60	1.30	0.42
VB	5.70	3.53	5.90	3.36	3.70	0.85	0.50	0.16
EC	8.00	4.96	1.70	0.97	2.30	0.53	0.70	0.22
PT	4.20	2.60	24.40	13.91	4.90	1.13	1.70	0.54
ECG	0.70	0.43	3.70	2.11	0.30	0.07	6.60	2.11
CR	5.20	3.22	2.40	1.37	8.30	1.91	1.10	0.35
Extraversion	2.70	1.67	4.10	2.34	1.50	0.35	1.30	0.42
Neuroticism	0.50	0.37	0.70	0.40	1.40	0.32	0.90	0.29
Psychoticism	3.90	2.42	2.80	1.60	1.50	0.35	0.50	0.16
Total <i>R</i> ²	.62		.57		.23		.32	

Note. All regression models were statistically significant, *p* < .001.

scale; variability in CL was also strongly explained by NFC, suggesting that the CL scale also taps a tendency to enjoy deep thinking. Finally, the variable sharing the most variance with TOL was VA, suggesting that this orientation taps what prior researchers have labeled “socially callous” listening (Weaver, 1998). Consistent with this interpretation, TOL was negatively related to listening appreciation and communicative (empathic) responsiveness but positively related to self-perceived ability in CL.

General Discussion

This project sought to develop a more valid, reliable, and empirically derived measure of orientations toward listening. We were primarily motivated by the fact that the

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listening orientations purportedly measured by the LSP-16 are quite widespread, appearing in nearly every undergraduate interpersonal communication text and being the focus of several research investigations that presuppose the validity of the scale. In particular, this study aimed to answer the call put forth by Bodie and Worthington (2010) to develop a more psychometrically viable measure of listening-related goals. In doing so, Study 1 provides an improved framework for conceptualizing preferences for listening, whereas Study 2 offers evidence that these preferences remain stable over time, that their measurement is reliably related to theoretically relevant constructs, and that the scale does not merely duplicate existing measures. Together, these studies suggest a fruitful program of research investigating the antecedents and consequences of various listening styles. Overall, the project met its goals by establishing the instrument's dimensionality via exploratory and confirmatory factor analyses, demonstrating internal consistency of the factor structure over time, and examining discriminant and concurrent validity. We hope that our studies present a "theoretically interesting" story (Abelson, 1995) that eventually changes what educators and scholars think about listening styles and how each goes about teaching, training, and investigating them. In the following, we discuss findings associated with each of the LSP-R dimensions followed by implications for future theoretical development.

Development of the LSP-R

Among the dimensions of the LSP-R, RL demonstrates the closest alignment, both statistically and conceptually, with one of the original LSP-16 dimensions: people-oriented listening. Specifically, people-oriented listeners were originally described as concerned and aware of others' feelings and emotions and as highly responsive to others; RL incorporates this same conceptualization with items that meet psychometric standards. Clearly, a fundamental goal of listening involves connecting with others emotionally and attempting to understand how they feel. This goal is reflected by RL's strong relationship to enjoyment of listening and high self-perceived ability to attend to others' during times of stress. These findings are highly consistent with research finding similar relationships between people-oriented listening and a variety of empathy (Weaver & Kirtley, 1995; Worthington, 2001), communication (Bodie & Villaume, 2003), and personality (Sargent, Fitch-Hauser, & Weaver, 1997; Villaume & Bodie, 2007; Weaver, 1998; Worthington, 2003) constructs but add to this literature by generating a more focused and concise measure of this important listening-related goal.

More generally, the tendency to focus on the emotions and feelings of others is consistently used in conceptualizations of listening, particularly as it is defined in close relationships (Bodie, 2011a; Halone & Pecchioni, 2001). For instance, Affection Exchange Theory highlights listening as one type of affectionate communication that fosters intimate interaction by enhancing feelings of being understood (Floyd, in press). When we feel "listened to," we are more satisfied with our relationships

and with life in general; this increased well-being can also have a profound effect on physical health (Bodie, 2012). Not only does listening in a relationally oriented way influence the recipient, but the listener can also garner positive outcomes (Notarius & Herrick, 1988); of course, there are also potential negative consequences of this devotion that should be recognized (Lewis & Manusov, 2009; Perrine, 1993). Given that listening is vital to close relationships, a fruitful area for future research would be documenting the specific roles listening plays in this process and, for instance, whether RL as described by the LSP-R helps to validly distinguish those who are good from those who might benefit from skills training in this capacity.

The second style, AL, can be seen as reflecting a goal toward attending to the full message of a speaker before coming to judgment. Although AL is correlated with the original content-oriented listening style proposed by the LSP-16, AL seems to more accurately capture a tendency to engage in systematic thinking as opposed to mere enjoyment of complex information. A preference for systematic listening is clearly evident, given that AL is most strongly related to the information processing constructs PT and systematic-analytic processing. Items on this scale, such as “I fully listen to what a person has to say before forming any opinions,” recognize a listener’s desire for gathering all available information with the intention of truly understanding all available perspectives. While the original conceptualization of this style in the LSP-16, the content-oriented style, suggested enjoyment of receiving complex and challenging information, the newly proposed AL style demonstrates little in the way of similarity to this implication. Thus, future research might benefit from investigating whether enjoyment of complex information constitutes an important listening-related goal or whether scales such as NFC and NTE adequately capture this construct, thereby negating the need for duplication.

Like time-oriented listeners, task-oriented listeners dislike listening to speakers that take too long to get their point across. The revised conceptualization of listeners of this type reflects concern with the amount of time spent in an interaction, but more so now represents a desire by the listener for a speaker to stay focused and on topic. These two facets of TOL are neatly evidenced through the two relationships with both the action- and the time-oriented styles of the LSP-16 from Study 1 (see Table 1), which clearly indicates the refined focus away from time and toward speaker diversion (action oriented). Thus, people who report high levels of TOL are those who want a speaker to remain on task and “get to the point” without wasting time. Results from Study 2 show that this preference is highly related to a tendency toward VA, a lack of enjoyment for listening, and an inability to respond empathically. Thus, TOL seems to map conceptually to what past research calls a socially callous listening style (Villaume & Bodie, 2007; Weaver, 1998), though the outcomes of any of these orientations is only speculative at this point.

Finally, CL is a combination of the action- and content-oriented styles of the LSP-16. CL refers to a tendency to focus attention on the accuracy and consistency of a speaker’s message. Attention to errors and inconsistencies in the utterances of others is represented by CL being highly associated with the CL competency subscale of the SPLC scale. This subscale taps a tendency to evaluate and critically assess

messages, a key component of CL. Consistent with this assessment, CL was strongly associated with NFC and moderately with NTE.

Implications

While proposing categorical “styles” of listening allows us to easily characterize and label specific groups of people in hopes of improving understanding and facilitating communication, it remains questionable whether the validity of classifying people as such is completely accurate. Although future research might benefit from “identifying the relative percentages of people who tend to rely on each style predominately” (Chesebro, 1999, p. 237), we suggest that our scale most adequately taps various goals that listeners have when engaged in situations that call them to be a particular kind of listener. This perspective certainly calls into question whether listening styles truly are habitual, trait-like conditions or if they vary depending upon the nature of the situation (Bodie, 2010; Bodie, Gearhart, Denham, & Vickery, in press; Imhof, 2003). Future research should continue to explore this question and might approach it by utilizing experimental procedures that present participants with various situations in which certain styles would be preferred over others. The extent to which listeners who might prefer a particular style in general are able to adapt to the needs of the conversation would suggest that listening styles are largely orientations triggered by certain situational cues. If styles are found to change dependent upon the characteristics of the situation, it would be important to understand how people (1) identify the salient features of the situation that help a listener determine which style to use, (2) understand which groups of people are better able to “match” the proper style to their own listening needs, and (3) investigate how listeners cope with situations that require a style in which they are not proficient, to name a few possible research questions.

Additionally, the notion that listeners approach messages from varying perspectives might also suggest the possibility of different interpretations of messages between the categories (or possibly within categories). It may be the case, for instance, that individuals exhibiting a relationally oriented listening goal extend their focus to understanding the feelings of the speaker that are embedded in the background of a given message or interaction. At the same time, although some research suggests a relational orientation toward listening creates more awareness of interlocutor emotions and feelings, TOL and CL may afford listeners greater focus on message content. Indeed, it appears that the four styles proposed by the LSP-R closely mirror a focus on two aspects of messages originally described in a fundamental axiom of human communication (Watzlawick, Beavin, & Jackson, 1967), that any given message has both a content and relational component. RL and AL each reflect appraisal functions of message processing that closely align with the “relational” level of messages or how messages are to be taken, whereas CL and TOL seem to reflect ways in which listeners attune to the “content” level of messages or a focus on the correctness of a message (Edwards, 2011). Thus, perhaps situations that call for more relationally oriented listening styles (i.e., RL and AL) cause individuals to more closely attend to

the nonverbal cues of an utterance, while situations that call for more task-/content-focused listening styles (i.e., TOL and CL) cause individuals to maintain a strict focus on message content.

Limitations and Conclusions

Although not agreeing with all of his conclusions, Sears (1986) noted the possibility of bias in using college student samples and noted that claims to external validity are problematic when using college student samples (cf., Shapiro, 2002). Indeed, Ford et al. (2000) reported data suggesting college students may overestimate their own listening abilities, and the use of self-report measures for the study of listening is further problematic insofar as participants in our study may have attempted to present themselves in the best possible light, thus potentially distorting the true relationship between the LSP-R and individual difference measures. In addition, our particular student samples were imbalanced for biological sex (246 females versus 162 males in Study 1, 150 females versus 77 males in Study 2) and contained a disproportionate number of Caucasian participants. Future research should explore the potential variability in listening styles across these and other potentially consequential individual differences.

Despite these and other limitations, the LSP-R was developed in response to concerns regarding the LSP-16's psychometric properties, particularly issues associated with its reliability coefficients and the lack of support for its factor structure. Results from these two studies suggest that researchers should consider the LSP-R as an alternate measure of individual listening style and primarily as a measure of extant listening-related goals. Of course, as a new measure, further validity evidence for the LSP-R should be gathered, and we suggest a variety of ways in which research might go about this testing. Regardless of the direction that this research takes, however, simply affording attention to the nature of how individuals attend to people and information in social settings will be a step in the right direction.

Notes

- [1] All 57 items are available upon request. Since we utilized the original items from the LSP-16, we were able to analyze model fit of the original scale to examine whether the Bodie and Worthington (2010) results could be replicated. In line with their findings, the LSP-16 model generated poor fit statistics ($\chi^2(98) = 257.05, p < .001, CFI = .78, SRMR = .10$), though approximation error was within acceptable standards (RMSEA = .06 (.05, .07)). In addition, 22 standardized residual covariance values were above 2 in absolute value, 14 of the 16 standardized regression weights were below .60, and reliability estimates were well below acceptable standards. Inspection of scale distributions also indicated that each LSP-16 subscale deviated significantly from normality with the people-oriented scale negatively and the other three scales positively skewed and each scale leptokurtic.
- [2] Please contact the first author at gbodie@gmail.com for a copy of the instrument.
- [3] Analyses available upon request.
- [4] Analyses available upon request.

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