

**Language use in consultation: Can “we” help teachers and students?**

### **Abstract**

Analyzing the use of function words such as pronouns in conversation is an increasingly popular approach in social psychology, but has not yet been applied to the study of school-based consultation. The two central purposes of this study were to: (1) examine how language is used by consultants-in-training (CITs) and consultees within a collaborative model of consultation, and (2) to explore the relation between language use and the collaborative relationship, consultee outcomes, and client outcomes. Analyses focused on CITs' ( $n = 18$ ) and consultees' ( $n = 18$ ) use of pronouns in a problem identification and analysis (PID/PA) session of problem solving. Data indicated CITs and consultees used pronouns differently during PID/PA, particularly first-person plural words (e.g., we, us, our), and some of these differences were related to consultation outcomes. Implications of this research for school consultation practice and potential avenues for future research are explored.

*Keywords:* school consultation, collaboration, language analysis, LIWC, pronouns

Language use in consultation: Can “we” help teachers and students?

In his classic text, *Mental Health Consultation*, Caplan (1970) asserted: “The ideal consultation relationship is one of *coordinate interdependence*, in which each side both gives to and takes from the other” (p. 80). For approximately five decades, this description and its associated assumptions have informed popular perspectives regarding collaborative consultation in educational and other settings. Yet collaboration, an interactive, language-based process between consultant and consultee, remains an elusive and understudied topic in school-based consultation. What exactly it means to collaborate or to be collaborative remains unclear (Schulte & Osbourne, 2003).

Since the 1990s, research on collaboration in psychological consultation has been scant (Dougherty, 2013), yet developing collaborative working relationships with adults remains a priority for consultation and coaching in all settings, including schools (American Psychological Association, 2007; Rosenfield, 2013). Despite the presumed importance of interpersonal interactions, questions remain about the extent to which relationships truly affect outcomes, be it in therapeutic, consultative, or coaching contexts. For example, extrapolating from the psychotherapy research literature, McKenna and Davis (2009) suggested that only 30% of the variance in coaching outcomes is attributed to the relationship between a coach and a client as compared with 40% that can be attributed to individual client or extra-therapeutic factors.

In schools, the need for increasingly sophisticated professional development in an age of education reform creates significant opportunities for collaborative consultation. In fact, two decades’ worth of research suggests that teachers and students benefit from collaborative approaches to professional development, but that those opportunities are not frequently available (Darling-Hammond, Wei, Andree, Richardson, and Orphanos, 2009). In a recent special issue of

*Consulting Psychology Journal: Practice and Research* on consulting psychology in education, Truscott and colleagues (2012) presented a framework for consultation known as exceptional professional learning that seeks to support conceptual and behavioral change in teachers. Such consultative problem solving has the capacity to enhance collaboration within the school setting and may be considered a form of embedded professional development for teachers (Rosenfield, 2014).

Within any consultative problem-solving process, consultants may use a variety of communication skills to build a collaborative relationship. In addition to skills such as active listening, paraphrasing, and clarifying, Rosenfield (2012) suggests consultants may use “we” language rather than “I” language to emphasize problem solving as a shared endeavor that is tackled shoulder-to-shoulder. Indeed, across a variety of disciplines, research has linked the use of we-words to a broad range of positive outcomes, including successful marriages (Seider, Hirschberger, Nelson & Levenson, 2009), improved health for heart failure patients (Rohrbaugh, Mehl, Shoham, Reilly, & Ewy, 2008) and fewer errors by airline pilots (Sexton & Helmreich, 2000). We-words have meaning across all sorts of human interactions, and consultation should be no different. Although the use of “we” language appears to be an intuitive approach for consultants to promote collaboration in consultation, there is currently no evidence to demonstrate that this is actually the case, nor is there evidence that consultants’ use of “we” makes a meaningful difference for consultee or client outcomes.

The purpose of the current study is to use an innovative technique to investigate (a) the language used by consultants-in-training (CITs) and consultees within a collaborative model of school-based consultation, and (b) the implications of language use for the collaborative relationship and case outcomes.

### The Analysis of Language in Consultation

A number of researchers have studied language use in consultation in educational settings, typically by transcribing and coding the verbal content of consultation sessions. Several coding systems have been used to quantify individual verbal messages or dyadic exchanges between consultants and consultees, including: Rogers and Farace's (1976, as cited in Erchul, 1987) relational communication coding system (R-F), Folger and Puck's (1976, as cited in Erchul & Chewning, 1990) request-centered coding system (F-P), and Tracey and Ray's (1984, as cited in Witt et al., 1991) topic following-topic initiation coding system. Readers are referred to Martens, Erchul and Witt (1992) for a thorough analysis of each of these systems.

Several studies have used Bergan and Tombari's (1975) Consultation Analysis Record (CAR) to investigate the specific verbal interaction techniques that comprise effective consultation. The CAR assesses and codes four aspects of each "message" from the speaker: (1) *source* (consultant vs. consultee), (2) *content* (background environment, setting, behavior, individual characteristics, observation, plan or other), (3) *process* (evaluation, inference, specification, summarization, or validation), and (4) *control*. The control category designates all statements as either elicitors or emitters, based on whether they reflect a request for action or information (elicitors) or are verbalizations that provide information (emitters).

Using the CAR, Gutkin (1996) found consultees did the majority of the talking in consultation, while consultants uttered nearly all elicitor statements (i.e., requests for action or information). In other words, consultants tended to ask questions, and consultees tended to answer them. Consultants also made virtually all statements that related directly to explaining the process of consultation, and did far more summarizing than did consultees. Benes, Gutkin and Kramer (1991) found that consultees did most of the talking (more than 75%) during

consultation sessions. Investigating patterns of statements made by members of student assistance teams, Lee and Jamison (2003) found that consultees spoke more during initial “descriptive” meetings than they did during later meetings. They also used more elicitor statements observed during initial meetings, but more emitter (i.e., informational) statements than elicitors over time.

In the 1980s and 1990s, Erchul and other researchers conducted several analyses of consultation interactions using various language coding systems. Erchul (1987) and Erchul and Chewing (1990) concluded that consultants tended to control consultation interactions, and consultees perceived more dominant consultants to be more effective. Witt, Erchul, McKee, Pardue and Wickstrom (1991) found that consultants had more control over interactions than consultees and that topic determination by the consultant was positively associated with both the consultant’s and the consultee’s perception of case outcome, as well as the consultee’s willingness to carry out treatment plans. Similar research using the CAR to investigate interactions in a behavioral consultation (BC) model confirmed the tendency for consultants to exhibit control over the consultation process and found positive consultation outcomes related to specific qualities of consultant language—the use of behavior and plan specification statements (Busse, Kratochwill, & Elliott, 1999). In other words, language related to gathering detailed descriptions about the problem behavior and attempts to address it were linked to greater consultation success.

Taken together, these studies suggest there is much complexity in the verbal interchanges between CITs and consultees during consultation, and that each party may communicate in different ways during the process. The data linking verbal interactions and consultation outcomes provide support for the argument that language use matters in consultation. Updated analyses are

needed to continue to clarify the effects of the language used by consultants and consultees (Erchul, Grissom, Getty, & Bennett, 2014).

### **Challenges of Traditional Approaches to Language Analysis**

The coding systems historically used to analyze the language of consultation require considerable time and effort to be applied in any meaningful way. For example, Martens, Erchul, and Witt (1992) found that coders needed between 7 and 10 hours of training to use systems such as the CAR, R-F, and F-P. Once trained, researchers spend many more hours poring over transcripts, assigning codes, and entering data for analysis. As a result, “consultation studies using this methodology are relatively rare,” perhaps due to its perceived “tedium” (Erchul & Schulte, 1990, p. 257). What is more, prior studies have focused primarily on dominance-submission/control, yet relational communication is a multi-dimensional construct requiring additional exploration (Erchul et al., 2014). New tools are now available to analyze consultation transcripts more quickly, efficiently, and across multiple dimensions.

### **Linguistic Inquiry and Word Count (LIWC) Analysis**

Nearly three decades ago, James Pennebaker and Martha Francis set out to develop a computerized method of analyzing language that addressed limitations of other methods (Tausczik & Pennebaker, 2010). Their years of work resulted in the LIWC program - a series of dictionaries that provide a means of coding every word in a text sample into one or more of over 70 linguistic categories (e.g., articles, pronouns, emotion words). LIWC analysis provides the user with a series of percentages that indicate how frequently each type of word appeared in a text sample. The reader is referred to Pennebaker, Chung, Ireland, Gonzales, and Booth (2007) for a detailed discussion of LIWC dictionary development, revisions, and psychometric properties.

LIWC analysis has uncovered a variety of patterns in the ways in which people use language, both spoken and written. For instance, Pennebaker (2011) detailed how patterns in the use of function words—short, frequently used words that have little meaning outside of a sentence—can reveal a variety of characteristics about individuals. In particular, the use of personal pronouns has been found to vary in meaningful ways. For example, in a series of five studies analyzing contexts as diverse as the spoken language used by undergraduates working in small groups to letters written by Saddam Hussein’s soldiers, individuals with higher status consistently used fewer first-person singular pronouns (I, me, my) than did those with lower status (Kacewicz, Pennebaker, Davis, Jeon, & Graesser, 2013).

Personal pronouns appear to be particularly relevant in examining interpersonal relationships (Ireland, Slatcher, Eastwick, Scissors, Finkel, & Pennebaker, 2011). “We” language in particular has been found to be a meaningful variable in a number of contexts. For example, following the 9/11 terrorist attacks, an analysis of pronouns in over 75,000 blog entries detected a significant increase in we-words (both “we” as a family and “we” as a nation) and a decrease in I-words, demonstrating alliance formation when a group (in this case, the United States) is made salient (Cohn, Mehl, & Pennebaker, 2004). In several studies, the use of we-words has been shown to increase over time the longer a dyad or group stays together (see Pennebaker & Chung, 2012 for a summary). In a study of language in the cockpit during flight simulations, Sexton and Helmreich (2000) found that increased we-word usage was associated with fewer pilot errors. In the field of medicine, across 373 consultations between doctors and patients in the United Kingdom, Skelton, Wearn, and Hobbs (2002) found that doctors used the word “we” significantly more than patients and companions. However, doctors’ use of “we” was often ambiguous (i.e., it was not clear if they meant the collaborative “you and I” or the non-



collaborative “we experts in the medical field”), and patients and their companions *never* used “we” to include doctors, suggesting doctor-patient relationships are unequal.

### **Synchrony in Relationships**

One way to consider the “give and take” in interpersonal relationships is by measuring the amount of synchrony within a dyad or group. Across four studies, seven samples, and over 1,400 individuals, Leroy, Shipp, Blount, and Licht (2014) investigated the construct of synchrony preference, or one’s willingness to adapt social pacing and rhythm to create synchrony with others. The authors found that synchrony preference positively predicted (a) flexible pacing behaviors in work interactions; (b) interpersonal facilitation; (c) team synchrony; (d) job dedication; and (e) team performance in highly interdependent (i.e., collaboratively-focused) tasks. Higher levels of task interdependence did not strengthen the positive relationship between synchrony preference and job dedication.

The concept of relational synchrony has also been applied to psychological therapy approaches. For instance, a hallmark of neuro-linguistic programming (NLP) is therapists’ matching, mirroring, and pacing of clients’ verbal and non-verbal behaviors to enhance the therapeutic relationship (Witkowski, 2012). However, a synthesis of existing research on NLP suggests the approach is “ineffective both as a model explaining human cognition and communication, and as a set of techniques of influence and persuasion” (Witkowski, 2012, p. 37).

**Language style matching.** Language style matching (LSM) is a measure of the matching, mimicry, or synchrony of language, specifically function words in dyadic or small group relationships (Gonzales, Hancock, & Pennebaker, 2010; Ireland et al., 2011; Niederhoffer & Pennebaker, 2002). Since function words are not content specific, LSM is applicable

regardless of conversational topic or setting (Ireland et al., 2011). LSM does not provide information regarding conversational partners' affinity for one another, but rather how "in synch" they are in a given interaction. In other words, individuals that do not get along but are both fully engaged in a conversation may exhibit a high LSM score, while those individuals disengaged in a conversation (e.g., not listening; thinking about something else) will likely exhibit a low LSM score (Niederhoffer & Pennebaker, 2002). In short, LSM appears to be a novel and meaningful way to measure dyadic or small group relational dynamics, and may predict outcomes such as relationship longevity above and beyond self-reported measures of these constructs (Ireland et al., 2011).

### **Current Study**

Despite the burgeoning research investigating pronoun usage in a variety of settings, very few, if any, researchers have applied LIWC or LSM in the context of education (J. W. Pennebaker, personal communication, September 3, 2013). However, these measures may have great applicability in educational settings given the innumerable constellations of relationships that exist in schools – both between educators and students, and educators with one another (i.e., professional collaboration). Of interest in this study is the potential applicability of LIWC and LSM to collaboration in school-based consultation.

The following questions guided this study:

1. What similarities and differences exist in CITs' and consultees' pronoun use?
2. How does pronoun use by CITs and consultees correlate with CITs' perceptions of the quality of collaboration in the consultation relationship?
3. What is the relation between pronoun use and collaboration, client outcomes, consultee outcomes, and number of sessions?

4. What is the relation between a dyad's LSM score and collaboration, client outcomes, consultee outcomes, and number of sessions?

## **Methods**

### **Participants**

The study used archived data originally gathered during a three-course (30-week) graduate sequence on school consultation during the 2012-2013 academic year. Participants included 18 CITs in their second year of a specialist-level school psychology program, and 18 teacher consultees ( $N=36$ ) from CITs' school-based practicum sites. CITs included 17 females (13 White, two Asian, one Black, and one Latina) and one male, between ages 22 and 45. Three CITs spoke English as a second language. Consultees included 17 elementary-level (K-5) teachers and one 8<sup>th</sup> grade teacher. Consultees' schools were spread throughout one Midwestern state and included urban, rural, and suburban settings.

Research with graduate-level trainees/CITs is commonplace in studies examining language use in school-based consultation (e.g., Benes et al., 1991; Erchul, 1987; Erchul & Chewning, 1992; Gutkin, 1996). Studying graduate-level trainees is not unique to school-based consultation research; Weisz and Gray (as cited by Schulte, Murr, Tunstall, & Mudholkar, 2014) found that less than 2% of youth psychotherapy studies included practicing clinicians as participants. However, as recognized in this study's limitations section, the use of CITs as participants may have implications for sample representativeness.

### **Research Setting**

During the three consultation courses, students were instructed in content (e.g., school culture, problem-solving stages, assessment, intervention, systems change) and process (e.g., interpersonal communication, collaborative relationships) relevant to school consultation. The

courses covered multiple models of consultation, but emphasized the instructional consultation (IC) model, a consultee-centered approach (see Hylander, 2012) that accentuates skill- and knowledge-building in the adult working with a struggling learner (see Rosenfield, 1987; 2014 for a full description of IC). Consistent with IC, CITs were expected to work with consultees through the problem solving stages of contracting, problem identification and analysis (PID/PA), intervention design, intervention implementation, intervention evaluation, and closure. In addition, they were expected to use collaborative communication (e.g., active listening, paraphrasing, clarifying, “we” language) to build the consultation relationship and effectively problem solve. Throughout the consultation practicum, CITs received ongoing individual and group supervision to support skill development consistent with approaches to consultation training described by Rosenfield, Levinsohn-Klyap, and Cramer (2010).

### **Data Collection**

Over 30 weeks, each CIT engaged in a minimum of two consultation cases in which consultees sought out assistance regarding a student or group of students in their classrooms. The foci of the consultations varied, but all represented requests for assistance with academic and/or behavioral concerns that are typically encountered by school psychologist practitioners. CITs audio-recorded each consultation session in its entirety, listened to the recording, and then completed reflective process logs for each consultation session that included transcribed excerpts (see Burkhouse, 2012). They also transcribed and analyzed up to 30 minutes of one PID/PA session in either of their two cases. At approximately week 20 of the course, CITs composed a 15-page analysis of one of their two cases; 14 of 18 CITs wrote a final paper for the case which they had transcribed the PID/PA session. CITs’ archived process logs, transcripts, and case analysis papers (when available) constituted the raw data for this study.

## Measures

**Pronoun usage.** Consultant and consultee pronoun usage in transcripts was measured using LIWC software. Prior to analysis, the researchers divided each transcript into separate files for the CIT and consultee for each dyad. These files were then “cleaned” following guidelines suggested by Pennebaker, Booth, and Francis (2007) for analysis formatting. Pronouns considered in the analysis included first-person singular (e.g., I, me, my;  $\alpha = .62$ ); first-person plural (e.g., we, us, our;  $\alpha = .66$ ); second-person (e.g., you, yours;  $\alpha = .73$ ), third-person singular (e.g., he, she, it;  $\alpha = .75$ ); and third-person plural (e.g., they, them;  $\alpha = .50$ ) (Pennebaker et al., 2007).

**LSM.** LSM can be calculated in any LIWC category using the formula:  $LSM_{preps} = 1 - ((|preps_1 - preps_2|) / (preps_1 + preps_2 + .0001))$ , with  $preps_1$  representing percentage of prepositions from the CIT and  $preps_2$  percentage of prepositions from the consultee. Consistent with prior research on LSM (e.g., Ireland et al., 2011; Niederhoffer & Pennebaker, 2002) scores were calculated and averaged across the nine LIWC categories of personal pronouns (e.g., I, his, their), impersonal pronouns (e.g., it, that, anything), articles (e.g., a, an, the), conjunctions (e.g., and, but, because), prepositions (e.g., in, under, about), auxiliary verbs (e.g., shall, be, was), high-frequency adverbs (e.g., very, rather, just), negations (e.g., no, not, never), and quantifiers (e.g., much, few, lots) to form a single LSM score for each CIT-consultee dyad. LSM scores fall between 0 and 1, with scores closer to 1 indicative of more similarity between CIT and consultee ( $M = .87$ ,  $SD = .04$ ,  $Range = .75$  to  $.91$ ). Internal consistency reliabilities of LSM scores range from .49 to .80 across multiple studies and types of texts (Pennebaker & Chung, 2012). LSM scores for individual LIWC categories were also analyzed.

**Measures of collaboration and outcomes.** Because this study was conducted retrospectively using archival data, neither CITs nor consultees were available to provide self-report ratings of collaboration or case outcomes. Available data included information about each consultation case in the form of CIT-composed reflective process logs and extensive case analysis papers, in addition to the session transcripts. The researchers applied magnitude coding on all the aforementioned types of data to determine collaboration and outcome scores. Magnitude coding allows researchers to assign “intensity, frequency, direction, presence, or evaluative content” to qualitative data in order to enhance description and clarify meaning (Saldaña, 2013, pp. 72-73). For each domain (collaboration, client outcome, and consultee outcome), the researchers developed a distinct 3-point scale to quantify the available qualitative data for each case. Each scale underwent two rounds of revisions until the researchers achieved 100% inter-rater reliability with four CITs’ datasets.

**Collaboration.** Collaboration reflected how collaborative the CIT perceived the working relationship to be as documented through process logs, transcripts, and case analysis papers that were coded by the researchers. Collaboration was rated by the researchers on a 3-point magnitude coding scale (described above, Saldana, 2013), where 0 = *noncollaborative relationship*, 1 = *neutral, unclear, or mixed relationship*, and 2 = *collaborative relationship* ( $M = 1.47$ ,  $SD = .72$ ). A lower collaboration score reflected that a CIT’s process logs, transcript, and case analysis paper collectively indicated a more hierarchical, coercive, or expert-driven relationship. A higher score reflected a more collaborative and non-coercive relationship.

**Client outcome.** Client outcome measured the extent to which the student or students who were the focus of consultation exhibited positive changes on the problem defined by the CIT and consultee during PID/PA. Broad problem areas included academic achievement,

disruptive behavior, and social-emotional functioning. Client outcomes were also assessed with magnitude coding (described above; Saldana, 2013) via a combination of (a) objective client outcome data indicating student progress towards goals (graphs and/or other data were available for 12 of 18 CITs) and (b) CITs' self-reported perceptions regarding client outcomes (included in all CITs' process logs and case analysis papers). The researchers utilized a 3-point magnitude coding scale (described above, Saldana, 2013), where 0 = *premature closure of consultation case/two or fewer consultation sessions without clear outcomes*, 1 = *unclear or no change*, and 2 = *positive change* ( $M = 1.18$ ,  $SD = .81$ ).

***Consultee outcome.*** Consultee outcome measured the extent to which consultee skill improvement or positive changes in the teacher's perception of the student were evident. These ratings were based on statements made by the teacher in session transcripts or by the CIT in process logs and case analysis papers. For example, consultee outcomes were rated more highly if process logs, case analysis papers, and/or session transcripts suggested that, as part of the consultation experience, a consultee made use of novel instructional strategies or classroom management techniques. Consultee outcome was also rated more positively if, for example, a teacher recognized that the student was capable of doing more than was previously assumed. The researchers scored consultee outcome on a 3-point magnitude coding scale (described above, Saldana, 2013), where 0 = *premature closure of consultation case/two or fewer sessions without clear outcomes*, 1 = *unclear or no change*, and 2 = *positive change* ( $M = 1.06$ ,  $SD = .75$ ).

***Number of documented sessions.*** The number of sessions completed between consultee and CIT was measured at the end of the consultation relationship based on the total number of CIT process logs ( $M = 4.35$ ,  $SD = 4.03$ , *Range* = 1 to 16).

## Data Analysis

Prior to analyzing the data to answer the research questions, we conducted a sensitivity power analysis using G\*power 3 (Faul, Erdfelder, Lang, & Bucher, 2007) for a dependent samples *t* test, where power = .80 (Cohen, 2013),  $N = 36$ , and alpha = .05. A dependent samples *t* test was appropriate because the CITs and consultees were correlated with or dependent upon, not independent of, one another. Results indicated that these parameters would be sensitive enough to detect a medium effect size of .48. Next, we conducted preliminary analyses to examine the mean, standard deviation, and range of LIWC and LSM scores, disaggregating LIWC scores for CITs and consultees. We also calculated the correlations among the outcome variables to examine construct validity or the extent to which client outcomes, consultee outcomes, collaboration, and the number of sessions were related to each other.

To answer the first research question, we conducted paired samples *t* tests to determine if there were significant differences between CITs' and consultees' LIWC pronoun scores. To answer the second and third research questions, we estimated bivariate correlations between the LIWC pronoun scores and the outcome variables (i.e., collaboration, and client outcome, consultee outcome, and number of documented sessions). To answer the fourth research question, we correlated each dyad's LSM score with the four outcome measures.

## Results

### Preliminary Analyses

Preliminary analyses indicated that consultees averaged more spoken words ( $M = 1596$ ,  $SD = 1053$ ) than CITs ( $M = 1056$ ,  $SD = 360$ ), and there was greater variability among consultees in the number of words spoken. Table 1 shows the means, standard deviations, and ranges for LIWC pronoun scores and LSM scores. Specifically, for the pronoun "we," (including "we,"



“we” contractions, “us,” and “our”) on average, CITs used “we” 2.64% of the time ( $SD = .96$ ,  $Range = .00$  to  $4.30$ ) and consultees used “we” 1.04% of the time ( $SD = .45$ ,  $Range = .38$  to  $1.94$ ). Within CIT-consultee dyads, “we” was used 1.84% of the time ( $SD = 1.10$ ,  $Range = .00$  to  $4.30$ ), on average. The average “we” LSM score across dyads was .53 ( $SD = .23$ ,  $Range = .00$  to  $.88$ ).

Preliminary analyses also indicated that the four outcome variables were significantly correlated with each other (see Table 2). Importantly, the correlations between CITs’ perception of collaboration and measures of client and consultee outcomes were significant and large (Cohen, 1988), providing evidence of construct validity. Additionally, there were significant, large correlations between client outcomes with number of sessions and consultee outcomes, and consultee outcomes with number of sessions.

### **CIT and Consultee Differences in Pronoun Use**

Results from the paired samples  $t$  tests are shown in Table 3 and indicated CITs used “we” and “you” language more frequently than consultees. Consultees, on the other hand, used “I,” “s/he,” and “they” more frequently than CITs. These differences in language use occurred with large effect sizes, as is reported in Table 3 (see column for Cohen’s  $d$ ).

### **Pronoun Use and Collaboration**

The first column of Table 2 presents the correlations between LIWC scores and collaboration. Three pronoun categories emerged as significant, medium ( $r = .30$ ) to large ( $r = .50$ ) (Cohen, 1988) correlates of collaboration: “I,” “we,” and “they.” Specifically, the higher the “I” LIWC score within dyads (with either party using more “I” language contributing to a higher average “I” LIWC score), the less collaborative the relationship. Upon further investigation, consultee “I” LIWC score, specifically, was marginally, negatively correlated with collaboration.

Consultee “we” LIWC score was also significantly correlated with collaboration, where greater “we” language from the consultee during PID/PA was related to more collaboration over the course of the relationship. Finally, “they” was significantly, negatively correlated with collaboration, such that greater “they” language, on average, or by either party specifically was related to less collaboration over the course of the relationship.

### **Pronoun Use and Consultation Outcomes**

The last three columns in Table 2 present the results for the third research question. Several LIWC scores emerged as medium to large correlates of client outcome, consultee outcome, and number of sessions completed, measured at the end of the consultation relationship. Specifically, “you” LIWC scores approached significance for the number of sessions completed by the consultation dyad. Client outcome was influenced by “they” LIWC scores, such that the higher the “they” LIWC score, the lower the client outcome. “We” and “you” consultee LIWC scores approached significance for client outcomes, both in the positive direction. Finally, consultee outcomes were most influenced by “we” and “they” LIWC scores but in the opposite direction. Higher “we” LIWC scores were related to more positive consultee outcomes, while “they” LIWC scores were related to negative consultee outcomes.

### **LSM and Consultation Outcomes**

In answering the fourth research question, the overall LSM score was not significantly correlated with consultation outcomes. Looking at each pronoun more specifically, only one LSM score emerged as significantly related to any of the four outcomes. “We” LSM scores, or the extent to which dyads were “in-synch” in their usage of the “we” pronoun, were significantly correlated with client outcome ( $r = .51, p = .035$ ) and collaboration ( $r = .64, p = .005$ ).

## Discussion

This exploratory study is the first to apply LIWC software to the analysis of language in school consultation, or to any aspect of K-12 education. We investigated (a) CITs' and consultees' use of pronouns, and (b) the relation between their respective pronoun usage and consultation outcomes, inclusive of the relation between LSM (i.e., the extent to which CITs and consultees are "in synch") and consultation outcomes.

### Applicability of LIWC and LSM to Consultation Research

LIWC appears to be a promising, contemporary approach to language analysis in school-based consultation. The analysis of pronoun usage has been linked to psychologically meaningful categories in a number of studies (e.g., see Tausczik & Pennebaker, 2010), and its application to school-based consultation research may permit further understanding of collaboration in the consultation process. The overarching LSM score applied in prior social psychology research (e.g., Ireland et al., 2011) did not correlate significantly with other variables of interest. However, the LSM derivative of the "we" pronoun category was positively correlated with CITs' perceptions of the collaborative relationship and client outcomes.

On one hand, the lack of correlation between LSM and consultation outcomes may suggest that perhaps LSM is not relevant to school-based consultation research. Such a conclusion would fit with Witkowski's (2012) conclusions that NLP, including its emphasis on relational synchrony in the therapeutic relationship, is a fad in search of data. On the other hand, the LSM construct is supported by a burgeoning database across multiple contexts (see Pennebaker & Chung, 2012), and its application to school consultation requires further investigation. The work of Leroy et al. (2014) further supports the potential relevance of

synchrony in relationships, as one's synchrony preferences may be meaningful for how work interactions such as consultative problem solving ensue.

### **CITs' and Consultees' Use of Pronouns**

Results indicated CITs and consultees communicate in different ways during consultation sessions, and that these differences matter in terms of the consultation process and collaboration, consultee outcomes, and client outcomes. Consistent with prior research (e.g., Benes et al., 1991; Gutkin, 1996; Lee & Jamison, 2003), consultees in this study spoke more during consultation sessions than CITs. This fits with the PID/PA stage where consultees describe and operationally define problems with CIT assistance. Previously unexplored in the consultation literature, differences also were apparent between CITs' and consultees' use of pronouns.

**“We” language during PID/PA.** CITs used significantly more “we” language during PID/PA than did consultees. Using authentic “we” language was emphasized as part of the CITs' collaborative consultation training. For example, in a PID/PA session, one CIT stated: “So, *we* can prioritize here. *We* can work on math facts or her letter sounds, I was thinking. What do you think about that?”

Prior research in social psychology (e.g., Sexton & Helmreich, 2000) and conceptual literature in school consultation (e.g., a series of case studies compiled by Rosenfield, 2012) suggest that “we” language may be considered indicative of a collaborative relationship, or a fused identity between a dyad or group members. Therefore, one would expect consultees to use “we” language as much as CITs. However, this was not the case in the PID/PA sessions analyzed in this study. Of course, the data in this study represent only a single snapshot of a PID/PA session for each dyad from one of their first meetings and may not capture changes in language use that likely take place over the course of a consultation process.

**“We” as shared problem ownership.** Although consultees, on the whole, used less “we” language than CITs, when consultees used more “we” language in the session, it was significantly related to CITs’ positive perceptions of collaboration in the relationship. Consultees’ use of “we” language may indicate to the CIT a partner’s authentic shared ownership of the consultation process. Consultee factors may be hypothesized to be the largest of any contributor to consultation outcomes (McKenna & Davis, 2009), and consultee “we” language may be indicative of an investment in the consultation relationship, and willingness to work together with the consultant to problem solve. It is interesting to note that CITs’ use of “we” was not related to their own perceptions of collaboration in the relationship even though they used significantly more “we” than consultees. This finding is consistent with prior research that suggests manipulating “we” language usage (as arguably occurred in this study during consultation training) does not seem to correspond with changes in perceptions of group identity or cohesion (see Pennebaker & Chung, 2012 for a summary). In other words, it is more likely that interpersonal dynamics influence language than it is that deliberate use of certain language patterns affects how people perceive one another.

**“We” and consultee change.** The total “we” language used by CITs and consultees together in their sessions was positively correlated with consultee outcomes, including improved skills or positive changes in the teacher’s perception of the student. This suggests that when both parties see this as “our” problem to work on together, it may be linked to the potential for consultee conceptual and behavioral change (e.g., a “turning”, as described by Hylander, 2012). Fostering such change is a primary goal of consultee-centered consultation (CCC) models (Hylander, 2012; Lambert, Sandoval, & Hylander, 2004; Sandoval, 2014).

**Being “in synch” with “we”.** The dyad’s use of “we” did not correlate with client outcomes, and CITs’ and consultees’ individual use of “we” did not link to consultee or client outcomes. However, the amount of synchrony, or LSM, that CITs and consultees shared in “we”-language use was positively correlated with the collaborative relationship and client outcomes. In other words, when the CIT and consultee exhibited more harmony in the use of “we,” the relationship was viewed to be more collaborative by the CIT and there were better outcomes for students. Taken in conjunction with results suggesting that the dyad’s total “we” language was not related to client outcomes, perhaps how “in synch” the dyad is in their “we” usage is more important than how much “we” language is used in sessions.

**Pronouns as indicators of typical PID/PA patterns.** CITs used significantly more “you” language than consultees, and consultees used significantly more “I” and “s/he” language during the session. This finding is consistent with prior research (e.g., Benes et al., 1991; Lee & Jamison, 2003) in that a consultee would be expected to describe what is happening in his/her classroom with a focus on instructional practices, as one teacher did when she stated, “...next week *I* am going to start doing the subtraction twice a week.” Consultees are also likely to speak in “s/he” terms about specific student behavior such as, “...*her* math facts are just not there. *She* doesn’t know *her* addition or subtraction math facts, *she* just, *she* doesn’t really succeed in those at all.” The CIT would respond with reference to the consultee’s work (e.g., “...this must be so difficult for *you* with 20 other kids in the class”). Once the problem is defined together, perhaps the dyad can move to a shared understanding (i.e., “our” problem), although our single point-in-time data do not allow us to investigate this hypothesis at this time. Consultees also used “s/he” language more frequently than they used “they” language, which may imply a focus on individual students rather than groups of students during the PID/PA stage of problem solving.

**Pronouns as indicators of status.** The differences between CIT and consultee use of pronouns are also consistent with patterns found in prior social psychology research on status, which has demonstrated that individuals with lower status use more “I” language, while those with higher status use more “we” and “you” language (Kacewicz et al., 2013). Intuitively, such status differentials are not consistent with CITs being graduate students and consultees being professionals; in other words, it is unexpected for graduate trainees to have higher status in a relationship than professional teachers. On the other hand, potential status differentials would be consistent with prior research (e.g., Erchul, 1987; Erchul & Chewing, 1990; Witt et al., 1991), which demonstrates that CITs influence and direct the consultation process. The tendency to direct the consultation process, including through the use of specific verbal interaction techniques designed to elicit specific information about problem behaviors and plans to address them, has been linked to positive consultation outcomes (Busse et al., 1999). Notably, much of the research on verbal interaction techniques has focused on BC models, while the CITs in this study were trained primarily in IC. Differences in model application may have implications for the nature of the consultation relationship (Erchul et al., 2014; Knotek & Hylander, 2014). Limitations in the data set (e.g., small sample size; lack of information about consultee characteristics such as age and years teaching) do not allow further investigation of status differentials at this point in time.

### **Collaboration during PID/PA**

Overall, CITs’ perceptions of collaboration were significantly correlated with client and consultee outcomes, supporting the notion that CIT perceptions of collaboration are meaningful and may impact outcomes for both teachers and students. Furthermore, the use of pronouns appears related in several ways to CITs’ perceptions of collaboration in the consultation

relationship. Overall, more “I” language used by the dyad together was related to CITs perceiving the relationship to be less collaborative. Consultee use of “I” language approached but did not reach significance in its relation to negative CIT perceptions of the relationship; this may be due to the small sample size in this study, given the moderate to large correlation. Taken together with the positive correlation of “we” language and collaboration, the data suggest that as consultees use more “we” language and less “I” language, CITs may view the consultation relationship as more collaborative.

The use of “they” language by the dyad together, and by CITs and consultees individually, was negatively correlated with perceptions of collaboration. “They” language may indicate a conceptual shift from the work being done together by the CIT and consultee (indicated by “we” language), or the individual work the teacher is doing in the classroom (indicated by “I” or “you” language) towards external individuals—either groups of students or other professionals. For example, one teacher stated, “... *she* comes in and teaches a lesson and based on how *they* complete the lesson ... *she* sees four kids from in here.” Within dyads that emphasize external focus, there may be less emphasis on the collaborative work being done by the dyad, and therefore CITs view the relationship as less collaborative. In other words, the problem is no longer “ours,” but somebody else’s (e.g., a group of students; the IEP team; interventionists).

A dyad’s collective use of “they” language, as well as consultees’ individual use of “they,” were also found to be negatively correlated with consultee and client outcomes. Consistent with implications for the collaborative relationship, perhaps the external focus of “they” language led to less effective problem solving. Another possibility is that “they” may be indicative of lack of problem solving clarity. For example, the consultee is describing her



classroom on the whole, or a group of challenging students, rather than specifying behaviors of an individual student, or individual students within a group (e.g., “*They* have a lot of free time in here and it really backfires on us...*they* get out of their seats a lot, *they* make excuses to sharpen their pencils, and *they* get up to use the hand sanitizer...*they* want to do everything opposite of what I’m telling them to do”). Of note, use of “s/he”, which was more common for consultees, was not significantly related to consultation outcomes – negative or positive.

### **Implications for School Consultation Training and Practice**

This study suggests that language use, particularly the utterance of pronouns, may have implications for how consultation cases proceed. For example, pronoun usage may help CITs understand consultees’ perspectives on problem ownership (“my” problem, “your” problem, “our” problem, or “their” problem), allowing consultants to strategically approach the consultation interaction, and work towards conceptual change (Hylander, 2012). “We” language also appears to be significant within the relationship. In this study, the harmony with which the dyad used words such as “we”, “us”, and “our” mattered for case outcomes as well as CIT perceptions of collaboration in the relationship.

Language usage and relationship building in school consultation can be taught. Several authors have offered strategies for effective school consultation training and supervision with a focus on process-skills such as interpersonal communication (e.g., Henning-Stout, 1999; Meyers, 2002; Rosenfield, Levinsohn-Klyap, & Cramer, 2010). As described in this literature, training emphasizes CIT self-awareness including listening to recordings, transcribing, analyzing, and considering one’s own skill application. The results of this study suggest such processes may indeed be important, including a focus on pronoun use in consultation interactions.

However, human beings are not wired to be acutely aware of function words such as pronouns in interpersonal interactions. Even though function words make up almost 60% of the words we use in daily conversation, they comprise less than one tenth of one percent of a person's vocabulary (Pennebaker, 2011). Function words are almost imperceptible, dwarfed in perceived importance by surrounding content words. Yet a wealth of research suggests that function words give us much information about the communicator and about their view of the nature of the relationship with the partner with whom they are interacting, and have implications for outcomes of communication (Pennebaker, 2011; Tausczik & Pennebaker, 2010). If pronoun usage is to be considered relevant to school consultation outcomes, and these exploratory data suggest that they might well be, it will be important for school-based consultants and graduate educators who teach and supervise consultation to consider giving these little words more attention.

### **Limitations and Future Research**

This study used a small sample of archival data for an exploratory investigation of pronoun use in school consultation. Future replications using greater numbers of consultant-consultee dyads will continue to shed light on patterns of language use in consultation and their impact on collaboration and outcomes. For example, to explore the extent to which patterns in “we” and “I” language use relate to perceptions of status, demographic variables such as consultee age, amount of teaching experience, and the consultation model the CIT was trained to use must be accounted for. Measuring individual synchrony preference (Leroy et al., 2014) of CITs and consultees in conjunction with language analyses would also be pertinent to explore.

In addition to graduate-level CITs, future work should include more advanced CITs and experienced practitioner consultants to examine differences in patterns of language use as

consultants grow beyond the novice phase of development (Rosenfield, 2002). However, field-based practices do not always mirror what is instructed and practiced in professional training, perhaps making it challenging to investigate “authentic” communication in school-based consultation. For instance, school-based professionals likely do not (a) audio- or video-record their work, or (b) apply formal models of consultation, including systematic problem solving steps, to the same extent that may be expected of trainees in a structured classroom setting.

Examining patterns in pronoun use longitudinally, across the multiple stages of consultation, is another important area for future research. Patterns of language use could be expected to change as the consultation process proceeds and the consultant and consultee transition into working together to develop and implement an intervention, or even as they become better acquainted through multiple meetings.

The archival nature of the present data set limited our ability to directly measure outcomes and the nature of collaboration within the consultation relationship. First, CITs transcribed their own consultation sessions for course assignments; it is possible that transcripts contained errors outside of the researchers’ control, beyond those such as spelling errors that were corrected by the researchers prior to LIWC analysis. Given that outcome data were not collected consistently across cases, we opted to use a magnitude coding process to judge the impact consultation had on the consultee and the client, as well as the consultant’s reported perceptions of collaboration, based on information available in the CITs’ transcripts, session logs and case analysis papers. While this approach has support in the literature (see Saldaña, 2013), future studies using additional outcome measures (e.g., consultee ratings of collaboration) would be valuable. As suggested by McKenna and Davis (2009), consultee ratings of the consultation

relationship likely have the most predictive power regarding the quality of the consultation alliance.

Finally, future research might examine the extent to which language patterns vary for different models of consultation. The CITs in this study were being trained in IC, a CCC model that stresses the impact of language on consultation, including the use of “we” language to build a collaborative working relationship. Within the context of a more directive model such as BC, pronoun usage and language patterns might look different.

### **Conclusion**

Caplan (1970) described the ideal consultation relationship to be one of coordinate interdependence, involving give and take from the consultant and the consultee along the way. This “give and take” may well be reflected in consultants’ and consultees’ language use, particularly their use of pronouns. It follows, then, that first-person plural pronouns (e.g., we, us, ours) are the nucleus of coordinate interdependence. When the consultant and consultee are “in synch” in their “we-ness,” it may have meaningful implications for collaboration in the relationship and client outcomes. In other words, yes, “we” – through our coordinate interdependence –has the potential to help teachers and students.

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Table 1  
*Descriptive Statistics*

Variable	<i>N</i>	<i>M</i>	<i>SD</i>	Min.	Max.
I <sup>a</sup>	36	3.53	1.58	.64	6.95
CIT LIWC	18	2.70	1.22	.64	5.18
Consultee LIWC	18	4.36	1.48	2.04	6.95
LSM	18	.69	.16	.44	.97
We	36	1.84	1.10	.00	4.30
CIT LIWC	18	2.64	.96	.00	4.30
Consultee LIWC	18	1.04	.45	.38	1.94
LSM	18	.53	.23	.00	.88
You	36	2.15	1.31	.19	4.90
CIT LIWC	18	3.25	.88	1.78	4.90
Consultee LIWC	18	1.05	.46	.19	1.86
LSM	18	.49	.21	.13	.83
S/he	36	5.26	2.73	.09	9.12
CIT LIWC	18	3.90	2.52	.16	8.74
Consultee LIWC	18	6.63	2.26	.09	9.12
LSM	18	.69	.24	.10	.99
They	36	.96	1.18	.00	4.78
CIT LIWC	18	.61	1.07	.00	4.78
Consultee LIWC	18	1.31	1.21	.12	4.77
LSM	18	.58	.29	.00	.99
Total LSM Score	18	.87	.04	.75	.91
Collaboration/Relationship	17	2.47	.72	1	3
Number of sessions	17	4.35	4.03	0	16
Client Outcomes	17	1.18	.81	0	2
Consultee Outcomes	17	1.06	.75	0	2

*Note.* <sup>a</sup>The first row for each pronoun is the average pronoun use across both CITs and consultees (reported in percentage of total words spoken). The second row is the average of CIT LIWC scores. The third row is the average of consultee LIWC scores. The fourth row is the average LSM score across the 18 dyads for that pronoun. CIT = Consultant in Training. LIWC = Linguistic Inquiry and Word Count. LSM = Language

style matching. The number of documented sessions was missing for one CIT therefore only language analysis was completed for that CIT.

Table 2  
*Bivariate Correlations between Measures*

Variable	Collaboration/ Relationship	Number of Sessions	Client Outcomes	Consultee Outcomes
I <sup>a</sup>	-.49**	-.18	-.30	-.24
CIT LIWC	-.278	-.02	-.06	-.06
Consultee LIWC	-.47*	-.24	-.39	-.29
We	.46*	.27	.39	.53**
CIT LIWC	.32	.25	.27	.42*
Consultee LIWC	.55**	.15	.46*	.51**
You	-.05	.44*	.25	.23
CIT LIWC	-.24	.46*	.04	.02
Consultee LIWC	.31	.10	.42*	.43*
S/he	.17	.20	.16	.05
CIT LIWC	.03	.06	.02	-.10
Consultee LIWC	.29	.30	.29	.21
They	-.61**	-.25	-.53**	-.48*
CIT LIWC	-.53**	-.13	-.38	-.34
Consultee LIWC	-.62**	-.32	-.59**	-.54**
Total LSM Score	.28	.15	.35	.38
Collaboration	-	.43	.71**	.81**
Number of sessions	-	-	.68**	.72**
Client Outcomes	-	-	-	.64**
Consultee Outcomes	-	-	-	-

*Note.* \* $p < .10$ . \*\* $p < .05$ . <sup>a</sup>The first row for each pronoun is the average pronoun use across both CITs and consultees (reported in percentage of total words spoken). CIT = Consultant in Training. LIWC = Linguistic Inquiry and Word Count.

Table 3  
*Results from Paired samples t tests (N = 18)*

	<i>M</i>	<i>SD</i>	<i>df</i>	<i>t</i>	<i>p</i>	Cohen's <i>d</i>
I			17	4.21	.001	1.22
CIT	2.70	1.22				
Consultee	4.36	1.48				
We			17	7.07	<.001	-2.13
CIT	2.64	.96				
Consultee	1.04	.45				
You			17	9.42	<.001	-3.13
CIT	3.25	.88				
Consultee	1.05	.46				
S/he			17	5.22	<.001	1.14
CIT	3.90	2.52				
Consultee	6.63	2.26				
They			17	3.67	.002	.36
CIT	.61	1.07				
Consultee	1.31	1.21				