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Project Title: Online Metaphorical Feedback and Students' Textual Revisions: An Embodied Cognitive Experience

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Abstract

Hewett (2015) argued that language in online writing consultations must be direct and problem-centered so that writers can interpret the writing consultant's intentions through what he or she reads. The use of conceptual metaphors in writing instruction is an excellent way to introduce novel concepts and practice new skills (Carter & Pitcher, 2010; Levin & Wagner, 2006). To test this notion, we trained half of one writing center's asynchronous online consultants in strategic metaphor use, while the other half were not trained. Results showed that consultants trained in strategic metaphor use employed more metaphors and more systematic metaphors than consultants who were not. We hypothesized that consultants' metaphorical metalanguage fosters more accurate writer understanding of "teachable moments" and that instructional metaphors offer both vehicles for coaching writers through revision and means of evaluating the effectiveness of that instruction. In this presentation, we report on the second phase of our study, which responds to the question "What difference does strategic metaphor feedback in online consultations make to writers' revisions?" During the two semesters of the study, we recruited five first-year composition instructors and invited their students to participate by submitting rough drafts of a specific assignment to the writing center's asynchronous online consulting service. Sixty-one students participated. We collected both the draft and the revised versions of essays from instructors. We also collected records of the online sessions (students' drafts and consultants' responses). We then analyzed the session records and essay revisions using Faigley and Witte's (1981) revision change taxonomy. We also interviewed consultants, instructors, and students about metaphorical feedback and resulting revisions. Results showed that consultants trained in strategic metaphor use were less likely to offer suggestions about surface formal and meaning-preserving issues than their untrained counterparts. While some students failed to revise based on consultant comments, those that did made fewer surface formal and meaning-preserving revisions and more meaning-altering micro- and macro-structural revisions to their papers. We discuss these results with respect to metaphorical metalanguage in online consulting practice and its connection to student revision outcomes.

Background

The concept of an "embodied" human experience has driven much recent research in academic fields across the disciplines. According to Mark Johnson (2008), humans are embodied in multidimensional ways: biologically, ecologically, phenomenologically, socially, and culturally. As a result, "embodied experience" implies that the human brain, the body, and its larger environment are implicated in our experiences (Wilson & Golonka, 2013). Embodied cognition, which is a brain and learning theory studied in such disciplines as neuroscience and psychology, "is the idea that the body influences the cognitive process" (Mohn, 2017). As Monica Cowart (n.d.) indicated, the study of embodied cognition "is a growing research program in cognitive

science that emphasizes the formative role the environment plays in the development of cognitive processes.” In an almost circular connection, “one necessary condition for cognition is embodiment.”

Embodied cognition is fundamental to phenomenology and to conceptual metaphor theory, in which nonliteral linguistic representations assist humans in comprehending and shaping their literal, embodied experience (Galese & Lakoff, 2005; Hampe, 2017; Lakoff & Johnson, 1999). Metaphorical language represents the physical world, particularly the abstractions of human nature that language seeks to symbolize. Indeed, one might consider the metaphorical embodied experience literally, as if a body were to be wrapped around an abstract concept, which is then given linguistic breath that situates it in time and space.

Metaphorical expressions embody an idea, allowing humans to understand and communicate concepts and experiences that otherwise are difficult to capture in words: “Metaphor is not just a linguistic trope, but a complex conceptual systematic mapping network with linguistic manifestations” (David, Lakoff, & Stickles, 2016, p. 219). Conceptual metaphors are comprised of two parts: a source domain (typically concrete and often the human body) and a target domain (typically an abstraction). These yield systematic mappings between the concrete and the abstract. For example, in HEAT IS INTENSITY, HEAT—a physical sensation—is the source domain and INTENSITY—an abstract concept—is the target domain. Source-target mappings yield highly productive schemas such as CAUSES ARE FORCES (e.g., *That decision dragged the nation into civil war*) and MORE IS UP (e.g., *The S&P 500 rose today to 2600*).

Such metaphorical expressions become conventionalized to the point that most users are unaware they are metaphorical, and they often become more lexically and syntactically “fixed” than literal ones (Deignan, 2010). Conventional metaphors are more familiar to listeners and readers and thus easier to process and interpret. Raymond Gibbs (2003) argued that people can readily interpret conventional metaphors “without having to first analyze and reject their literal meanings when these expressions are seen in realistic social contexts” (p. 362). Crucially, contrary to the expectation that figurative expressions are more difficult to construe than literal ones, studies have demonstrated that source-target mappings are psychologically real because speakers do not question them; for example, English speakers think, talk, and act as if ANGER IS THE HEAT OF A FLUID IN A CONTAINER: *I’m just boiling* (Lakoff & Kövecses, 1987, p. 383). Additionally, the time it takes to parse metaphorical and literal expressions is nearly identical (Damerall & Kellogg, 2016; Tendahl, 2009), at least for conventional metaphors (Brisard, Frisson, & Sandra, 2001).

A body of literature has developed on metaphor use in classroom and in individual instruction across disciplines and educational contexts (e.g., Cameron, 2003; Cassell & Lee, 2012; Holme, 2004; Littlemore & Low, 2006; Willox et al., 2010). Metaphors act as pedagogical “bridges” from the known to the unknown (Pugh, 1992), creating mappings from the familiar source to the unfamiliar target. To facilitate student content learning, science and mathematics teachers have exploited such metaphors for molecular processes (Degerman, Larsson, & Anward, 2012) and for equilibrium between mathematical functions (Bazzani, 2001). When teaching writing to engineering students, Susan Carter and Rod Pitcher (2010) avoided conventional metaphors common in engineering content instruction (i.e., targets such as WATER, WAVES, and WEBS).

Instead, they “switched channels” to novel, systematic metaphors with targets such as *GUEST TOUR* and *TRAFFIC RULES* to reduce student anxiety and suggest unusual frames for writing.

In literacy instruction, a task we believe to be part of every discipline’s work, instructors must move beyond the notion of “metaphor as ornament” to “metaphor as teaching and rhetorical tool” (Eubanks, 2011). This decision counters the notion that common metaphors are cliché or trite and therefore must be avoided in writing. Yet thoughtful and studied use of metaphor as an instructional tool acknowledges that there is much more to metaphorical meaning than a reductionist focus on style alone. In an investigation of student agency and self-efficacy, Eric Paulson and Connie Theado (2015) performed a metaphorical analysis of instructor talk in a college developmental reading class. Two conflicting metaphors, *TEXTS ARE TOOLS* and *TEXTS ARE AGENTS*, demonstrated that the instructor’s “espoused model” of student agency conflicted with her discourse “model-in-interaction” (p. 15). The authors made the strong claim that the metaphors that instructors employ have pedagogical implications:

How students experience the teaching and learning transaction, in terms of whether they actively approach texts and language as mediational tools or instead view texts and language as the agentic entities in the classroom, is connected to the messages implied by the particular conceptual metaphor in use (p. 16).

Students’ use of metaphors for and about writing can reveal a growing understanding of themselves as writers (Hart, 2009). And students can readily employ metaphors in their writing, reported Rebecca Gorman and Gloria Eastman (2010), if instructors demonstrate and make use of the ubiquity and pervasiveness of metaphors in students’ language as well as in the texts they are reading. Judith Anderson and Christine Farris (2007) detailed how they redesigned Indiana University’s first-year composition curriculum to foster exactly that. Metaphorical language may also be implicated in student revision.

Ken Gillam and Shannon Wooden (2013) have written about “re-embodiment online composition” to counteract the disembodiment of “online learning space” (p. 24):

Students are not actually disembodied just because we may never see them—but their embodied selves have become separable from the process of learning and writing, disembodimenting our learning spaces if not our learners, and discouraging us all from seeing knowledge production as having a material, bodily component. (p. 29)

Beyond these sources, scholars know remarkably little about how metaphor and subsequent embodied activity can serve as instructional tools in writing instruction. Even though such instruction may be of profound assistance in traditional, face-to-face settings, this lack of knowledge about the effects of metaphor and embodied activity in written text is particularly crucial in online settings where much of the instruction is text-based and therefore requires students to read, comprehend, and intuit how to apply it to their writing.

Motivation

Online teacher or tutor/consultant feedback in online writing instruction (OWI), particularly in asynchronous, text-based contexts, should be linguistically direct (as opposed to linguistically indirect and conditional or suggestive) and problem-centered so that students can interpret instructors’ intentions accurately. Such interpretation requires what Hewett (2015a) calls a

“cognitive leap from what the written instruction is supposed to convey to what the student is supposed to do in the writing” (p. 60). This cognitive leap can be challenging for novice writers particularly because it requires that students understand both what the feedback means with respect to their drafts and specifically how they can apply it to the draft to improve the writing. Written feedback poses a reading-to-writing challenge that can be especially difficult to overcome in online settings. To this end, linguistically indirect language that implies what students need to do or that provides a lesson outside the context of their own writing is too implicit for many students to use as guidance for revision. More explicit teaching often is needed.

Because asynchronous OWI primarily occurs through an instructor’s guided text-based feedback, which students must interpret and apply to their writing, instructors should communicate in unequivocal language: “Instructors’ semantic integrity is crucial in a text-based setting” (Ehmann & Hewett, 2015, p. 533). Semantic integrity, as Hewett (2015b) defined it, is “creating writing commentary and interactions that accurately address what students need to know in order to develop and improve their writing—on a case-by-case, problem-centered basis” (p. 4). It is the attempt to convey *in writing* one’s instructional intention so that students can accurately interpret it and revise as a result. To teach what might improve the writing to the next level of proficiency, Hewett expressed that semantic integrity includes linguistic direction rather than indirection (thereby avoiding rhetorical questions, closed-ended questions, conditional language, and politeness phrasing that can be misunderstood as offering choices where choice is not an option), explicitly addresses both instructors’ and students’ needs and aims, provides clear action-focused guidance about what to do next, and works with the student’s own text rather than that of unrelated examples. In this article, we extend the previous definition of semantic integrity by arguing that using metaphorical metalanguage as a rhetorically deliberate instructional tool may be more linguistically direct than literal expressions can be and, therefore, can be a more effective instructional tool. Therefore, in our study, we posited that writing center online consultants, or tutors, could use metaphors deliberately to engage students in meaning-focused revision.

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