

# Conceptual metaphor as an assessment method of transformational learning

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## ABSTRACT

The use of metaphor as an assessment method is predicated on the assumption that students need an interpretive context to self-assess learning. Self-assessment, per se, is valued in that it is a form of self-disclosure, providing a reflective opportunity. Such a critical reflection can drive transformational learning as described in the paper's introduction. Students in Organizational Behavior classes were asked to evaluate a film as a pre and post assessment of organizational concepts. The findings indicate that students are both comfortable in reporting learning utilizing metaphorical imagery and that such imagery provides an opportunity to reflect on the impact of the course which, in turn, results in a method of assessing learning outcomes.

Keywords: leadership, transformational learning, assessment, metaphor

## INTRODUCTION

Contemporary interest with curricular outcomes assessment has called into question time honored techniques used by instructors to capture student learning in individual courses. Final grades have long been viewed as the primary and sufficient method for determining that information was imparted and facts comprehended. Concern, not just with the academy but with accrediting bodies, has brought focus on the extent to which course development provides additional value to the learning process. Interest has applied equally to curricula in general education, liberal arts, and to professional fields such as business and engineering.

Implicit in the various efforts designed to enhance curriculum based outcomes assessment is the desire for transformational learning: fundamental changes in skill, behavior, or thinking. This paper reports on an effort to use conceptual metaphor as a basis for generating self-reported evaluations of learning in the undergraduate Organizational Behavior (OB) course typically found in most business administration programs. Specific interest here is in testing and developing a technique for assessing transformational learning where the intent of a course is for students to become active in the creation of knowledge from social and cultural experiences rather than comprehension of information and facts.

Establishing assurance of learning measures and protocols to assess transformational learning about organizations represents special challenges. Clearly, development of higher order critical thinking skills is appropriate for the OB course. For example, leadership development, typically suggested as one of the core objectives of the OB course, assumes an emphasis on the acquisition of skills that go beyond the technical and interpersonal level to include the level of abstract conceptualization about organizational systems and their environment.

This being said, it is the experience of the authors that students in the OB course often lack frames of reference conducive to organizational conceptualization and abstraction. Of course, there is no lack of curricular material available to instructors as they seek to create appropriate frames of reference. Witness the robust repertoire of experiential materials available to OB instructors. However, there appears to be little evidence indicating use of such materials for the establishment of base-line measures supporting assurance of learning assessment.

The research described below is motivated by the perceived need for inquiry and experimentation with assessment techniques linking student ability to conceptualize organizational phenomena at the beginning of the OB course to the student's conceptualization skill at the end of the course. Such techniques need to pass two initial tests. First, are they conducive to creating an initial conceptualization opportunity for the student? Second, do the techniques allow a causal connection between practice and educational outcomes?

## LITERATURE

Metaphors are often viewed as just a device for embellishing language discourse. Their significance, however, is far greater. The use of metaphor implies "a way of thinking and a way of seeing that pervades how we understand our world" (Morgan, 2006, p.4). When problems cannot be solved or events cannot be explained, metaphors are used to bring meaning out of chaos and dispel the mystery. Metaphors make confusion comprehensible (Ortony, 1979). By including metaphor within the frame of knowledge process that describes a form of epistemology, the metaphor constructs a bridge from the mind to culture. The metaphor thus

changes the culture in which we live and thereby affects the ways in which humans interact with their environment.

Metaphor is a direct comparison that forms a conceptual frame for ideas. In the linguistic view, metaphor is defined as understanding one domain in terms of another (Kovecses, 2002, Alvesson, M & Spicer, 2011). And if a conceptual domain is any logical organization of experience, then we rely on that coherently organized knowledge to understand life. Lakoff and Johnson (1980) introduced a concept of conceptual metaphor which is basically a mapping of one domain in terms of another domain. A set of mappings identifies the basic elements of the source domain and basic elements of the target (Gong & Ahrens, 2007, Lakeoff, 1993, 1994, Lakoff and Kovecses, 1987, Winter, 1995). To know these mappings provides much of the meaning of the linguistic metaphor.

In a connection between metaphor and learning, the French philosopher Gilles Deleuze used metaphor as an important tool for interpreting and evaluating experience in creating new meanings (Stivale, C. 2005). Semetsky further contends that Deluze's approach represented a significant contribution to learning theories in terms of learning from experience and that outcomes of the learning process, "may be considered as educational objectives embedded in the transformation pragmatics" of the process (2007, p. 197).

As early as 1934, John Dewey was concerned with the impact of concepts on the experiences of individuals (Cherryholmes, 1999, Posner, 1991) and developed an extensive theory on enriched experience. Pugh summarized Dewey's concept of experience:

"...an experience is centrally defined by an expansion of perception and value. In an experience, a person comes to see some aspect of the world...in a new way, to find new meaning in this aspect of the world, and to value this new way of seeing" (2002, p. 1102).

Thus one of the immediate tasks of the transformational learning experience is to reanimate the metaphor and craft the process into new ideas.

The use of metaphor in organizations is well documented in the seminal work of Gareth Morgan from which many metaphorical studies derive (Morgan, 1980, 1988). Morgan made two claims about the value of metaphor. First is that metaphor is a "fundamental element in scientific thinking... a process of finding and elaborating metaphors" (McCort, 1997, p. 513) and second is that if, in fact, metaphors are an element of scientific thought, then thinking metaphorically should "give us new insights into how organizations behave, and that those new insights should in turn suggest new possibilities for creative action" (McCort, 1997, p. 513).

The use of metaphors to understand organizational processes is also well documented (Bolman & Deal, 1991), but there is little evidence that students use metaphorical language in the study and mastery of organizational processes. Knowledge based on metaphors is both generative and descriptive (Dunford & Palmer, 1996). By using metaphors, the situation is named, framed, and the problem set (Schon, 1993). The use of a familiar structure provides "for guiding inferences, sanctioning actions and setting goals" (Boland & Greenberg, 1988, p 19). If metaphor is a basis for action, it is reasonable that it can act as a basis for learning and the evaluation of learning. The purpose of this study is to conduct an investigation into the effectiveness of using conceptual metaphor to assess transformational learning.

## **METHOD**

To provide an appropriate metaphorical image, the movie “Babe” was shown to two Organizational Behavior classes totaling 61 students. The movie was viewed as an appropriate mix of fantasy, allegory, and playfulness to invite and engage creative thinking. The plot of the movie basically involves a story line in which a pig is raised amidst rich organizational dynamics - complete with barnyard politics, inter-species conflicts, and the intricacies of agrarian production systems. Through a combination of acculturation, swine spunk, and necessity, Babe is entered into a prestigious sheep-dog competition. As an allegorical tale, Babe is in the tradition of Orwell’s Animal Farm and Chaplin’s Modern Times

To test the acceptance of the video in a classroom setting, the video was first shown to students in an MBA graduate course in Management. The video was shown late in the course and the assignment given to the students was to write a one-page “reaction paper” responding to the movie based upon total quality management techniques and concepts which had been covered in the course up to that point. While these graduate students were quite skeptical with the assignment, the papers submitted suggested an encouraging response in terms of the movie’s capacity to encourage conceptualization - and to generate lively discussion. Based on this initial class testing of the video, the authors proceeded to design and implement an initial assessment instrument and process in the OB course.

The video was then shown to the undergraduate OB classes. The students were predominately third year business administration students and this was their first OB course. Students from each class were shown the video during the regular class period in the second week of class meetings. Prior to viewing the video, students were provided with a brief lecture on using metaphor as a learning tool. Students were told that the purpose of the exercise was to develop sensitivity to basic organizational behavior concepts through the use of metaphor. Students were informed that the placement of the exercise at the beginning of the course was intended to enhance receptivity relative to the subsequent demands of concept learning. Finally, prior to viewing the movie students were given the following assignment:

Thinking about what “organizational behavior” is, write a one-page reaction paper. The paper should consist of three paragraphs: What was the most important thing you learned about (1) Individual Behavior, (2) Group Behavior, (3) Organizational Behavior. The use of specific examples from the video (i.e. think metaphorically) is preferred.

After viewing the movie, students submitted the reaction paper and during the next class period their papers were returned with minimal comment and without grade. (Students had not been advised that the papers would not be graded. Expectation of receiving a grade likely increased motivation for completing the assignment.) In addition to providing an initial course orientation, the purpose of generating these reaction papers was to create a vehicle for completing the self-assessment, value-added exercise at the conclusion of the course. Students were not informed that they would be completing the second phase of the project at this time. Copies of the original submissions were retained for distribution at the end of the course. No explicit or structured reference to the video was made over the remaining duration of the course. In a very few instances for each class, students made reference to the video as part of general class discussion on a particular topic.

During the last week of each class and prior to regularly scheduled student evaluations, the second part of the value-added exercise was implemented. Each class viewed the film again.

Students were asked to repeat the written exercise provided early in the semester. In an effort to minimize the potential for resubmitting or rehashing the first assignment, the students were reminded that the instructors had copies of the first paper. On the day the second reaction paper was submitted, the students were asked to compare their first reaction paper (provided to them in class) with the second reaction paper. To facilitate this comparison a questionnaire was distributed and collected in this same class period. Students were advised that the information from the questionnaire would not be used in determining class grade. Furthermore, the students were advised that the instructors would not review the questionnaires until final grades were determined and submitted to the University Registrar. This counsel was provided in order to encourage frank and critical responses to the questionnaire.

The questionnaire consisted of three sections as described below. The first section of the questionnaire had three sets of questions each responding to the various levels of organizational analysis: individual, group and organization. For example, for the individual level of analysis, students were asked to respond to the following:

1. In the context of individual behavior, please rate the extent to which your paper represents the improvement in the quality of your insight relative to the insight demonstrated in paper number one (response ranging from no improvement to high improvement; 5 point scale).
2. Please rate to which extent this course has contributed directly to the level of Improvement identified above (response ranging from has not contributed to contributed greatly; 5 point scale).
3. Think about “Babe.” What one specific concept did you learn in this course which most directly strengthened your ability to understand individual behavior in the video?

This pattern of questioning was repeated for the group and organizational levels of analysis.

A second question sought to assess the extent to which the initial viewing of Babe created an active metaphorical lens which students used as a learning tool as the course progressed. Specifically students were asked the following question:

As the course progressed over the semester, approximately how often did you find yourself reflecting back to “Babe” and thinking about a point made in class or your textbook? (Response ranging from never to frequently; 5 point scale).

A third set of questions asked students to assume a value-added perspective based upon work submitted in the reaction papers. From this perspective, students were asked to self-assess learning for these nine organizational behavior concepts: attitudes/values, motivation, decision making, groups, leadership, work-design, culture, communication, and conflict/change. The specific question as it appeared on the questionnaire read thusly:

Refer again to your “Babe” paper # 2. Think for a moment about your level of understanding of organization behavior at the beginning and now, the end of the semester. With this perspective in mind, please assess your learning (measured from where you were in the beginning of the semester and where you are now) for each of the following

concepts. (response ranging from no understanding to high understanding; 5 point scale).

## FINDINGS

The paper provides a partial reporting of questionnaire findings. Qualitative data is not reported in the interest of space. Two questions are assessed: what is the relationship between self-reported improvement in “insight” and the “contribution” of the course in shaping this outcome; and, the exercises utility in creating a reflective transformational learning opportunity.

Questionnaire responses were assessed using the Tukey Mean-Difference Plot technique. A mean-difference plot can add substantially to our visual assessment of a shift between two distributions. As depicted in Exhibits 1 and 2 (Appendices A and B), the differences,  $x_i - y_i$ , are graphed against the means  $(x_i + y_i)/2$ . The line  $x = y$  of the quantile-quantile plot becomes the zero line on the mean-difference plot. Shifts are assessed by judging deviations from the zero line. This data visualization technique tends to enhance our perception of effects since we can more readily judge deviations from a horizontal line than from a line with a non zero slope.

Q1. Did the course contribute to self-reported insight at the individual, group and organization levels?

A1. The interest here is whether, in completing the exercise and in engaging in critical assessment, students connected self-reported improvements to work completed in the course. A positive relationship between these two variables would suggest that the exercise provides a useful assessment tool. Exhibit I (Appendix A) depicts “Relative Contribution of OB Course to Self-reported Insight.” Mean difference data is plotted for three levels of reflection: Individual (IndIns-IndCon), Group (GroupIns-GroupCon) and Organization (OrgIns-OrgCon).

Visual inspection of the data plots shown in Exhibit 1 (Appendix A) indicate that, for all three levels of reflection, there is a strong correlation between self-reported improvements in insight and the contributions of the course in shaping this insight. In short, as students reflect upon their written work relative to the “Babe” exercise, they were able to critically assess learning realized in the course. As a tool, the “Babe” exercise appears to offer promise in providing an assessment opportunity.

Q2. Did the exercise create a reflective, transformational learning opportunity?

A2. Exhibit 2 (Appendix B) provides a mean difference plot for two variables: frequency of reflection by students to the “Babe” video over the course of the semester; and, a self-assessment of learning for each of nine OB topics.

Interest in Exhibit 2 (Appendix B) lies in the fact, as indicated via inspection of the data plots, that responses for each of the nine OB topics differ in an exceedingly simple way from

responses to the reflect question. In short, students reported a generally modest level of reflection on the exercise over the course of the semester, and, based upon a completion of the exercise at the end of the course, students reported a generally high

level of learning.

## DISCUSSION

The use of metaphor as an assessment tool is predicted on the assumption that students need an interpretive context to self-assess learning. Self-assessment is valued in that it is a form of self-disclosure, providing a reflective opportunity. Such critical reflection can drive transformational learning as defined in the paper's introduction.

The findings shown in Exhibit 1 (Appendix A) suggest that students are both comfortable in reporting learning utilizing metaphorical imagery as an assessment tool and, perhaps more importantly, the use of such imagery provides an opportunity to reflect upon the impact of the course.

The findings shown in Exhibit 2 (Appendix B) suggest that students respond well to the use of pre and post course imagery as a vehicle for making summative evaluations of learning. While students did not report a great deal of such reflection during the course, they responded to the opportunity for such reflection provided by the completion of the exercise at the end of the course.

Overall, the results of this exploratory study support the theory that using conceptual metaphor fosters transformation learning. An additional consequence is the evidence that the application of metaphors to organizational processes leads to the use of metaphorical language in organizational discourse.

The descriptive data showed dominant metaphors identified with motivation, decision making, groups, leadership, work design, culture, communication, leadership, and conflict/change are associated with particular conditions within which organizations operate. The nature of the metaphors which students conceptualized situations may be central to the concept and assessment of transformational learning.

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APPENDIX A

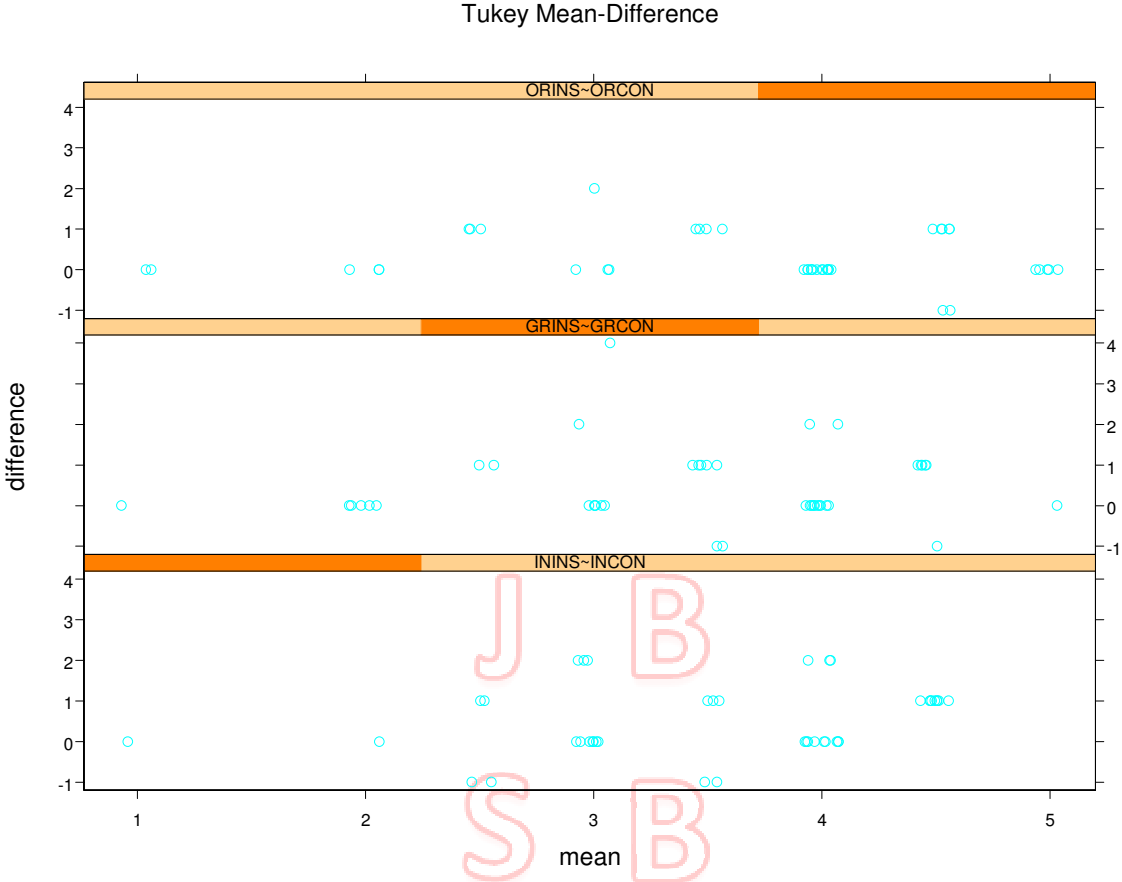


Exhibit 1 – ‘Relative Contribution of OB Course to Self-Reported Insight’

Appendix B

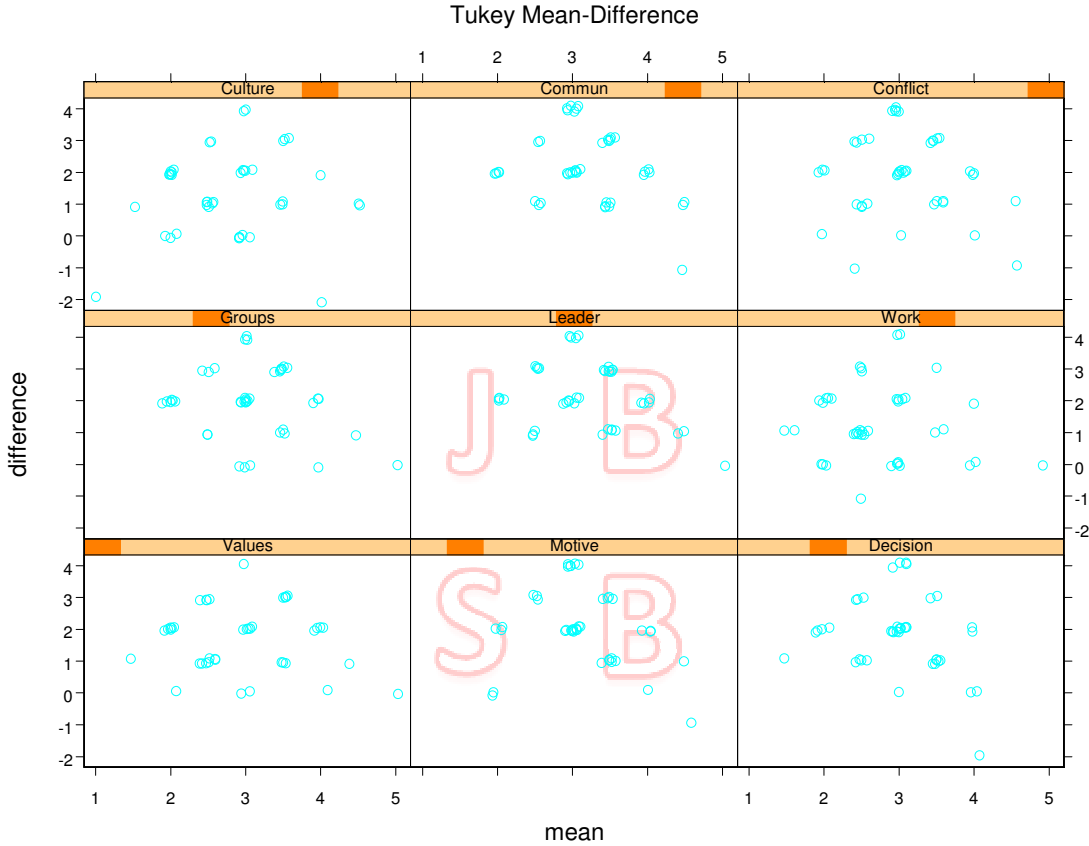


Exhibit 2 – “Self-Assessed Learning for Organizational Behavior Concepts