## REVIEW OF "METAPHOR IN EDUCATIONAL DISCOURSE" [CAMERON, L – LONDON; NEW YORK: CONTINUUM, 2003]

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In the last three decades studies on metaphor increased profoundly. Since the paradigmatic change started in the 80's, metaphor, previously accounted for as a linguistic ornament, under a rhetorical perspective, started to be seen as a cognitive tool, that is, a device deeply connected with the way we structure our thinking. It can be said that the development in this field, started by Richards (1936) and followed by Black (1962) and Reddy (1979), had as its landmark Lakoff and Johnson's publication of Metaphors We Live By (1980) in which the authors describe the conceptual role played by metaphor and its interplay with language and thought. These first studies inspired a number of theories and researchers either in Brazil and abroad.

Lynne Cameron's 2003 investigation - Metaphor in Educational Discourse - emerges from this paradigmatic change occurred in metaphor studies and reaches its unique value by tackling the classroom dimension in which metaphor is also settled, within its complexities and peculiarities. Under an interactional, contextualized and social-cultural approach to metaphor she successfully drives into the depths of language and thought (talking and thinking as she argues) in order to depict a clearer picture of the teaching/learning context within a framework in which language use, understanding in situated talk, and learning are connected. In doing so, she draws scholars' attention to the existence and relevance of metaphor impact on language in light of Bakhtinian and

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Vygotskyan concepts of prosaics and context with regards to discourse use and thought.

The book is structured into eleven chapters in which we can see a clear introduction, a review of literature, the two studies developed by the author and her final remarks. It is valuable to note that this book came out as a result of a long-term doctoral and post-doctoral period. In the first chapter, Cameron acknowledges her epistemic commitments through a theoretical review that supports her view of metaphor as a branch of applied linguistics, situated in discourse. According to her, discourse is defined as language in use under which metaphor (linguistic expression) is always contextualized<sup>9</sup> and she gives a number of previous examples from the data she gathered as evidence (you are on the right track/ the printer is playing up...it goes mad). She emphasizes that it is necessary to investigate how metaphor is operationalized if we are to understand how communication occurs, what must be done taking into consideration language and mind not only in theory but also in the analysis. Metaphor is then signaled by two crucial elements: incongruity (a word or phrase that appears to be conflicting in a certain context) and the possibility to solve this unsuitability. Such elements might help deciding if a word or phrase should be interpreted metaphorically. As she illustrates, the expression on the right track is found in a Math lesson where no real track was available. Discourse, thereby, would be composed of a number of contextual frames - physical, social, interactional, linguistic, conceptual - popping up from a particular language use. The first chapter offers a description of basic terminology in metaphor studies such as Topic and Vehicle<sup>10</sup>, which stand for the components of metaphor - the concept to be understood and the existing knowledge - and the difference between linguistic metaphor and process metaphor, the first one referring to the metaphorical expression itself whereas the second one presupposes the activation of the domains (topic and vehicle) that will make it possible for the discourse participant to perceive and resolve the actual incongruity. On the second section of the chapter she takes a broad view of theoretical accounts of metaphor

<sup>&</sup>lt;sup>9</sup> "The context of discourse both constructs or constrains what is done with language, including the use of metaphor" (CAMERON, 1996).

Lakoff and Johnson (1980) use the terms Target and Source referring to Topic and Vehicle respectively.

from the Aristotelian rhetoric perspective, passing by *substitution*, *comparison* and *interaction* theories and reaches the cognitive views of metaphor. Cameron criticizes cognitive linguists' focus on mind (rather than both language and mind), downplaying its interrelated role with language. The author is very convincing in making her point saying that talking cannot be abstracted from thinking, since every human being must be considered in his own mental singularity. Moreover, it is important to remark that the author seals this chapter by presenting the affective function metaphor appears to have in the classroom context, especially in easing students' anxiety with regards to the public situations faced by them during the lessons.

On the second chapter Cameron builds the theoretical background supporting her choices in terms of the research framework. Social cultural approaches are described and analyzed in order to ground her view of thinking and speaking as a product of jointly constructed interaction that can directly influence or change our minds. For this reason, she draws on the concepts of alterity as this gap in understanding what is common and crucial in the teaching-learning context, as opposed to intersubjectivity which is the shared focus of attention and perspective constructed by discourse participants. Both are visible in discourse and a locus of metaphor, which is used to connect spontaneous and scientific concepts present in educational discourse especially among younger students. Cameron proposes an interesting blending between the Complex Systems Theory - from the natural sciences field - and discourse, analogically describing the nonlinearity of metaphor components over time, in which discourse participants are in continuous co-adaptation throughout the talking and thinking interaction. Such continuous change may signal learning or conceptual development, seeing metaphor, through alterity, as a driving force within this process.

The third and forth chapters set the scene for the first study developed by the author. She describes the setting, participants and data collection procedures: a group of 15 children aged between 9 and 11 from an elementary British school, whose discourse (9 visits in all) was recorded through a microphone carried by one of the students. The data collected was divided into discourse events (unit of mediated activity). The aim of the first study is to investigate the nature of metaphor in educational discourse, which requires a quantitative and qualitative

analysis of the data in order to quantify the metaphorical language found (teacher-student discourse) and to describe it under a prosaic perspective. These choices entailed a set of methodological concerns and the necessity of adopting a family-resemblance approach and inter-rater reliability procedures. Discourse events were analyzed into teaching sequences in which metaphor appeared to play a significant role not only in explanation moments but also in every step taken by the teacher in class. Results from the first study showed that teachers used 92% of the identified metaphors among which verb and preposition metaphors were more frequent.

In the fifth and sixth chapters Cameron draws on the qualitative analysis results and establishes two categories of metaphorical expressions: conventionalized – referring to those expressions so commonly used in everyday language that they ended up being part of people's linguistic repertoires; and deliberate – referring to those linguistic metaphors used for a peculiar purpose in a specific situation. The author introduces terms such as vehicle relexicalization (use of a second vehicle to refer to the same topic), vehicle development (development of the mapping for better understanding), vehicle contextualization (with the purpose of activating the previous everyday experiences of discourse participants) that together with hedges use are some of the tuning mechanics that assist the construction of mappings between Topic and Vehicle domains.

The seventh chapter starts with a review of the key aspects of teachers' use of metaphors in classroom discourse, in order to provide the reader with a summary of the findings of the first study as well as to recapitulate some concepts that will be useful for the presentation of the second study in the following chapters of the book. The evidences produced by the first study, which suggest areas to be addressed in the second one, are also discussed. Some of these areas include how students construct understanding of deliberate metaphors in the process of interactional talking-and-thinking, how mediation helps in reaching shared understanding of metaphors and how immediate processing of metaphors affects longer-term changes in understanding. In order to investigate these concerns, students were presented with metaphors in texts to explore how they made sense of the metaphors and the text context. Cameron then proceeds to set out the theoretical framework for

"understanding" metaphor, which encompasses topics on understanding as reduction of alterity, reduction of discourse and conceptual alterity, the relation of action on two timescales and previous research on children's understanding of metaphor. The rest of the chapter is designed to elucidate how the second study was structured aiming at answering 3 research questions: How do students make sense of the linguistic metaphors they encounter in a text, how do encounters with metaphor affect conceptual alterity and if the metaphors prompt processes that lead to new understandings as well as assist recall of new information, and finally, what is the role of mediation in interpreting metaphors by the text/writer and peers in interaction. As a way of unveiling the possible answers to these research questions, think-aloud protocols of what children said about a text that contained metaphors were used. Informal assessments of their conceptual knowledge about the text topics were carried out before and after reading.

The children read articles on environmental issues and in the eighth chapter there is a discussion on what happened when the young readers tackled "The Ozone Layer" text. Cameron explains that their interpretation of metaphors is investigated within a larger interpretive context of making sense of the text in the light of previous knowledge. The chapter begins with an analysis of the metaphors found in the text as well as their contribution to its informational content and structure. In the sequence, previous knowledge brought to text is discussed followed by the potential of text and metaphors for learning. Cameron was able to identify problems in text processing when the readers did not have enough background knowledge to interpret some words and there was not enough evidence of the meaning of these words in the text. She was also able to find out that nominal and verb metaphors presented different patterns of comprehension and interpretation. A full description on the processing of these nominal and verb metaphors, the use of previous topic and vehicle knowledge, the accuracy of interpretation, the bridging topic and vehicle domains and the topic reference shift in the processing of verb metaphors are also presented. The chapter ends with a discussion on the analysis of the recalled knowledge about "The Ozone Layer" in post GITA<sup>11</sup> discussion,

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<sup>&</sup>lt;sup>11</sup> Goal directed interactive think-aloud.

focusing on how the students made sense of the linguistic metaphors they encounter in a text, how encounters with metaphors prompt processes that lead to new understanding and what the role of mediation in interpreting metaphors is.

In the ninth chapter there is a description of the second text read by the children four weeks after the Ozone Layer reading. They read a text called "The Heart" and once more the interactive thinking-aloud round took place. Therefore, the chapter reports on the metaphors in the text and how they were interpreted in the talking-and-thinking process. Similarly to what happened with the other text, the distinction between nominal and verb metaphors in processing is replicated, as well as the phenomenon of Topic Reference Shift. As in the eighth chapter, there is an analysis of the linguistic metaphors in the text and how they contribute to information content and structure. There is a discussion on the informational structure of the text and its conceptual content, information and thematic structures, and mediational devices in the text to support metaphor interpretation. When the role of previous knowledge brought to the text was concerned, it showed that incomplete and inaccurately structured knowledge implied conceptual alterity between existing concepts and the fuller scientific concepts of the text as what happened before with the Ozone Layer text. The difference in the two readings is that in the second one metaphor was not only present at the level of linguistic metaphors, but more systematically as metaphorical models. There were also different interpretation problems, and further strategies for interpreting technical metaphors were found. In a more detailed analysis of the reading of "The Heart", Cameron discusses the processing of nominal and verb metaphors, sources of problems in metaphor interpretation, processing technical language, the underlying metaphor of the pump and mediation of metaphor. The chapter is concluded with a summary on the interpretation of the metaphors of this second text.

The tenth chapter brings together evidence of systematicity in metaphor use, which is used to argue that a socio historical view of the development of metaphor can complement the cognitive perspective, and can explain how metaphor emerges from the gradual disembedding of talk from situated action over the years of schooling. Cameron also discusses animating and personifying metaphors and concluded that they

did occur in the data. It is explained that these metaphors characterize talk with children what explains the high number of instances in the discourse data. In analyzing the data Cameron also found a systematic set of JOURNEY metaphors in the classroom discourse. However, a similar search in metacognitive talk about thinking and learning processes showed that metaphors themselves are neither systematic nor specific enough to be very helpful. It is explained that the systematic use of lexis from the domain of speaking to talk about making meaning in written or spoken discourse suggests a very different type of conceptual metaphor, one that is actively shared by teachers and students, that links their talk with their classroom experience and action, and that is potentially important for teaching practice.

In the last chapter, Cameron summarizes the findings, and interpretations are brought together to summarize what she had found out about metaphor in use and the implications of the study. Metaphor as prosaic, language, interactional and contextualized are also discussed

Through this remarkable piece of work Cameron certainly leaves an indelible mark in metaphor studies and invites teachers and researchers to turn their eyes to the complex universe of metaphor and learning. As she puts it at the end of the last chapter, metaphor "is at once both true and false, both disjunctive, ordinary and yet surprising". These might be some of the reasons why metaphor has become a fascinating issue throughout the years.

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