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Using Metaphor Analysis: MIP and Beyond

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Abstract

Metaphor analysis is a way of obtaining understanding of a text by identifying and analysing the metaphors used in it. Metaphor analysis, as usually described, uses the researcher's intuition as a means of identifying the metaphors. MIP, the Metaphor Identification Procedure, uses a more valid and repeatable way of finding the metaphors. MIP may be applied in a way that will produce a quantitative or qualitative result. As a result, the application of MIP links quantitative and qualitative research and their results through one method of identifying the metaphors.

Keywords

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Using Metaphor Analysis: MIP and Beyond

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Metaphor analysis is a way of obtaining understanding of a text by identifying and analysing the metaphors used in it. Metaphor analysis, as usually described, uses the researcher's intuition as a means of identifying the metaphors. MIP, the Metaphor Identification Procedure, uses a more valid and repeatable way of finding the metaphors. MIP may be applied in a way that will produce a quantitative or qualitative result. As a result, the application of MIP links quantitative and qualitative research and their results through one method of identifying the metaphors. Keywords: Metaphors, Metaphor Analysis, Metaphor Identification Procedure, MIP, Quantitative Research, Qualitative Research

Introduction

Metaphor analysis is a method of extracting conceptions from texts. An important facet of metaphor analysis is the method used to identify the metaphors. According to my dictionary a metaphor is "A figure of speech in which a name or descriptive word or phrase is transferred to an object or action different from, but analogous to, that to which it is literally applicable" (*Shorter Oxford English Dictionary*, 2007). They are thus used to illuminate a description of some concept. (This is described in more detail below.) Most researchers use their intuition to find the metaphors. However, from my experience, obtaining the metaphors by using one's intuition is not sufficiently rigorous or repeatable, since different people's intuition may identify different words as metaphors. Thus, if research is to be rigorous and repeatable some better way of identifying the metaphors is required.

Just such a method is available in the form of MIP, the Metaphor Identification Procedure created by the Pragglejaz Group (2007). However, in its basic form MIP has some problems. In my work, I have solved some of those problems and developed MIP into a more rigorous, valid, and repeatable method of identifying the metaphors. I have also devised ways in which MIP can be used to obtain both qualitative and quantitative results.

In the discussion that follows I sometimes refer to my own research results using MIP. These results were gained from an analysis of the responses of a group of doctoral students to an on-line survey at an Australian research intensive university. These results are described in more detail elsewhere (Pitcher, 2010, 2011)

Metaphor Analysis

The text to be analysed by metaphor analysis may be a body of literature, the transcript of an interview or other written material. Written material is used so that it may be conveniently examined a number of times to ensure that all the metaphors are found. Indeed, the search for, and finding of, all the metaphors is of the utmost importance for the following analysis. The material has to be examined closely to ensure that all the metaphors are found. This step is particularly important as some of the metaphors might be obscure.

Metaphors We Live By as written by George Lakoff and Mark Johnson (1980, 2003) is the seminal work on metaphor analysis. The authors show how metaphors can be grouped into "metaphorical concepts" which is important for any method of analysis of metaphorical terms.

The metaphorical concept relates the target and source domains of the metaphor in the equation TARGET DOMAIN IS SOURCE DOMAIN. Thus, if a person uses the metaphor of a journey to describe his or her life then the concept is LIFE IS A JOURNEY. In this example "life" is the target domain and "journey" is the source domain since 'life' is the subject of investigation and "journey" is the domain to which it is linked by the metaphor. Part of the metaphor analysis process involves forming metaphors into concepts which illustrate the relationship between the target domain and the source domain (Lakoff & Johnson, 2003, *passim*).

Schmitt (2005) suggests a more detailed method of metaphor analysis. He writes at considerable length and in some detail about his method. He suggests that metaphors can reduce the complexity of qualitative data to manageable proportions and bring out clearly defined patterns (Schmitt, 2005, p. 360) and can be used to present the results of qualitative research in a clear fashion.

Schmitt states that he has "attempted to develop metaphor analysis as a systematic method to discover sub-cultural thinking patterns and the refine them to credible, teachable research steps" (Schmitt, 2005, p. 365).

In discussing the validity of metaphor analysis and the means of obtaining it, Schmitt suggests that metaphor analyses must provide the possibility of testing their accuracy and credibility. The ways in which the results are to be validated should not merely be applied to the actual analysis but should be applied throughout the whole investigation. It is important, he says, that the whole process should be documented, that interpretation should involve a group of fellow researchers, and that it use a standardised procedure (Schmitt, 2005, p. 380). An alternative to Schmitt's method of finding the metaphors, as propounded by Steger (n.d.) is described in the next section.

Steger (n.d.) gives a procedure for analysing metaphors that has similarities to that of Schmitt described above. The most important step, according to Steger (n.d.) is to find all the metaphors in the text by some method that ensures that all are found and is accurate and reproducible.

Allan (2007) used an inductive approach to the analysis and interpretation of the metaphors she found in the literature and other source material about resource management. She accumulates the metaphors by gathering phrases that "evoked one reality through the idea of another" (Allan, 2007, p. 354).

Moser (2000) presents a number of arguments as to why metaphor analysis should be considered an important research method and can provide useful interpretations of a person's thoughts and attitudes. She argues that metaphor analysis offers "a multifaceted research perspective" (Moser, 2000, p. 4) and that the "fuzzy" data on metaphors and their usage obtained from discussion and interviews can be made more solid and reliable providing a valid form of analysis is followed.

Moser finally argues that metaphor analysis can become either a quantitative or qualitative method by associating metaphors with topics. She advocates the use of computer software to discover the frequency of associations between the metaphors and the topics. However, she states that it is qualitative metaphor analysis that is the most important and brings out the full potential of the method (Moser, 2000, p. 6).

Metaphor analysis was used by Sally Denshire (2002) as a way to investigate her own thoughts and attitudes from the metaphors that appear in her own writing about occupational therapy. She does not have to worry about her own metaphors interfering with her analysis, as many other writers warn, since the whole point of her analysis is to find out the meaning of her personal metaphors. Although this is very different from what I shall be doing it offers some useful insights. It does show, for instance, that autobiographical text can usefully be analysed to reveal the thoughts and attitudes of the writer, as I shall be doing.

Denshire (2002) notes that metaphor analysis, as she is using it, is "a means of configuring the relationship between personal and professional domains" (Denshire, 2002, p. 36).

From the discussion above it is apparent that other researchers are troubled by the lack of reliability and repeatability of metaphor analysis. As well, few researchers actually discuss how they found the metaphors and thus there also appears to be some problems with describing the process. MIP offers a solution to all these problems. It provides reliability and repeatability. It is a rigid and valid method of obtaining the metaphors that also provides a means of documenting the process, including any decisions made while deriving the metaphors. Thus, as will become apparent below, MIP provides the answers to the metaphor analysts' needs.

One of the problems with applying lessons learnt from other writers about metaphor analysis is that they all depended on their intuition to find the metaphors but that no-one adequately defines what intuition is and how it should be used. I thus had to use my own intuition without any idea of whether or not I was doing the same as those previous researchers. This problem caused me considerable concern when it came to analysing my own data. It made me realise how subjective the process of metaphor analysis was, since it depended on what the researcher intuitively considered to be a metaphor. This was a problem with which I wrestled for a long time without coming to any decision that eased the process. It was not until I discovered MIP, discussed later, that I was able to dispense with my intuition and find a method of finding the metaphors that was more objective and repeatable. MIP provides the rigour and repeatability requested by some of the writers above.

MIP, the Metaphor Identification Procedure

The analysis described by the Pragglejaz Group (2007) provides a prescriptive method of finding the metaphors in a transcript or other written material. As such it provides a way of finding all the metaphors without the risk of the investigator's sensitivity to metaphors, or the lack of it, being an influential factor. The method described is almost mechanical in its application in that each word is checked against a dictionary definition. The dictionary provides the literal meanings of the words. Thus, if the meaning in the material is not identical to the literal definition given in the dictionary it can be taken that it is a metaphor.

The Pragglejaz Group describe five basic steps in their method of finding metaphorical words and phrases. The first step is to read the entire text to gain a general understanding of the context in which the metaphors appear. The next step is to mark out the lexical units within the text. In general "a lexical unit" is a single word. However, there are some compound words, such as "power plant" and "of course" that require analysis as a single unit.

The next step is to take into account the meaning of the lexical unit in the context of the whole. Next there is the need to determine if the lexical unit has a meaning that is more concrete, relates to a bodily action or is historically older. If this step is true, then one must decide whether the meaning in the text contrasts with the basic meaning from the dictionary and can be understood in comparison with it. If the answer to the above is yes, then the lexical unit is metaphorical (Pragglejaz Group, 2007, p. 3). They then work through an example in detail, using an extract from a newspaper article, to show how their method should be undertaken.

They show how the text to be examined is broken down into individual words and then each word's contextual and dictionary meanings compared. This results in a table from which a decision can be made as to whether or not the word is used metaphorically. I used the same table form as a working layout for my own work using MIP. The layout is convenient and provides a working record of the decisions made and the reasons for them. Keeping this record is an important part of the process of using MIP.

In my work I found that MIP can be used to provide a qualitative or quantitative result. Some of these results are discussed further below.

Qualitative Results

Used as qualitative data the metaphors identified by MIP can be interpreted for their meanings simply as metaphors, that is, as illustrations of a metaphorical relationship between the words and the alternative meanings they reflect in the thoughts of the respondents. They thus become illustrations of the way the person thinks and the images in her or his mind in relation to the conception being discussed. This process is no different whichever method of identifying the metaphors is used. Using MIP makes the results more valid and rigorous.

Using MIP for a qualitative result is the usual method of using it. The identification of the metaphors and the thinking behind them is the important result.

However, it is the new application of MIP in providing a quantitative result that is the most important aspect of my work. This result is discussed further below.

Quantitative Results

One of the quantitative results to come out of my metaphor analysis using MIP was the frequency of metaphor usage by the PhD students who responded to my on-line survey. Overall the responses varied from five metaphors per hundred words by a female, domestic, Arts student in her third year to 13.7 metaphors per hundred words by a female, domestic, science student in her first year.

The highest frequency of metaphor usage was recorded by a female science student in her first year. This might perhaps be related to the high use of metaphors used in teaching scientific principles. However, a second year female science student recorded only half the level. From these two students it may be that the frequency of metaphor usage amongst female science students is high at first but falls drastically after their first year of study.

The next interesting peak in the frequency distribution was made by Arts students in their third year of candidature, irrespective of gender, although there was a single case that did not agree. Arts students in their second and fourth years used metaphors much less than their fellows in their third year. Again, the small number of responses analysed does not permit any definite relationships to be stated.

There did not appear to be any simple relationship with gender. The highest frequency of usage was by a female student and the second highest by a male student. The other students were a mixed bunch with no regularity of frequency of metaphor usage.

The only International student available in the analysis recorded a frequency about midway through the range of all the students, but was the second highest of the Arts students. This may or may not indicate something about the student's facility with the English language: One case cannot support any conclusion.

A further quantitative result that can be derived using MIP is the "aliveness" or "deadness" of the metaphors in the text.

To show how MIP can be used to give this result I took six words from my transcripts. Three of those words were identified as metaphors in my earlier analysis using MIP and The *Shorter Oxford English Dictionary* (2007), and the other three were found to be used literally. I then repeated the MIP analysis using three on-line dictionaries: The *Merriam-Webster*, the *Cambridge* and the *Macmillan*.

The results are shown in the table below. An "M" in a cell indicates that the word was identified as a metaphor and an "L" indicates that it was used literally according to the particular

dictionary. It can be seen that some of the words were found to be literal/metaphorical in some dictionaries but not others. The last column shows the "aliveness" of the words as metaphors.

Dictionary Words	Shorter Oxford English	Merriam-Webster On-Line	Cambridge On-Line	Macmillan On-Line	Percentage word is a "living" metaphor
field	L	L	M	L	25%
step	L	M	M	L	50%
track	L	L	M	L	25%
pool	M	M	M	L	75%
area	M	L	M	L	50%
region	M	L	M	M	75%

Table 1. The metaphors, dictionaries and the percentages of 'aliveness'

These results can be expressed quantitatively as the "aliveness" or "deadness" of the words as metaphors.

The metaphors can be described as "active" or "alive", "dying" or "dead". Active means new, fresh, creative, not established, nor clichéd, and not found as defined in any of the major dictionaries. Dying means conventional or partly clichéd, and recently defined in a major dictionary. Dying metaphors have reduced metaphoric power. Dead metaphors have become part of normal language and are no longer recognised as metaphors using MIP. Definitions of these words are found in most dictionaries and they may or may not be recognised using one's intuition.

The more dictionaries that show the word to be a metaphor are an indication of its "aliveness", or to the contrary, the more that show the word to be used literally are an indication of its "deadness" as a metaphor. This figure is shown as a percentage of dictionaries that identify the word as a metaphor as a measure of its being a "living" metaphor in the final column. Its 'deadness' as a metaphor is the reciprocal of this percentage.

For example, "field" and "track" are each identified as being metaphors by one of the four dictionaries and thus have a status as a 'living' metaphor of 25%, whereas "region" and "pool" are identified as metaphors in three dictionaries and so both have a "living" metaphor status of 75%. "Step" and "area" are positioned in between these two figures at 50%, since they are each defined as metaphors in two dictionaries.

The figures calculated in this way will depend to some extent on the dictionaries used to characterise the word. A choice of different dictionaries here may have given different results. The more dictionaries used, the more accurate will be the final figures. The differences between dictionaries' identification of the metaphors and the final figures also indicate how the choice of dictionary will affect the results of using MIP to identify the metaphors, both in the amount of metaphors identified and which particular words are identified as metaphors.

These figures and relationships can be used quantitatively to give a measure of how "alive" or "dead" a metaphor has become. They can be expressed as graphs, pie-charts, scatter diagrams or other figures to illustrate the numbers and relationships graphically. The follow diagram suggests one such way in which the results might be displayed to show the relative percentages of the "living" metaphor values obtained in the above analysis.

	field	step	track	pool	area	region
100%						
75%						
50%						
25%						

Table 2. An example of how the "aliveness" of the metaphors might be portrayed (The lighter the shading the more "alive" the metaphor).

Discussion

Quantitative research is usually more objective than qualitative. However, it can never be completely objective. The influence of the researcher's personality and ideas must have some effect on it, whatever steps are taken to reduce that effect to the minimum. Qualitative research, on the other hand, is more subjective than quantitative research and the personality of the researcher is allowed to influence it much more. Due to these factors, quantitative research is more reproducible than qualitative research.

However, qualitative researchers who are aware of the effects of the researcher's self on their results will take them into account, and not allow them to detract from the results of their work. Qualitative research is seen as providing a more colourful and personal account of the participants than quantitative research because it allows for the person to show through the data. Quantitative research removes the personality and colour that can only appear when the whole of the person's response is taken into account.

There are two types of researcher who can use MIP to their advantage.

Firstly, there is the researcher who seeks objectivity and who uses MIP in its most comprehensive mode as protection against wrongly assigning metaphoricity to a word.

Secondly there is the researcher who seeks more credibility in finding all the metaphors regardless of how 'fresh' or out of date their metaphorical power might be. This type of researcher works with a colourful, rainbow, text full of personality and implicit meaning, but must consider other ways of providing protection against wrongful attribution of metaphoricity.

Each of these researchers will find their own way to their desired ends, using MIP in the appropriate fashion. Each researcher must use the appropriate mode of operation of MIP; using the wrong mode will not produce the desired type of analysis, either quantitative or qualitative.

Used as described above the quantitative researcher will have the protection of MIP to provide protection against going wrong in the identification of the metaphors. The qualitative researcher must provide his or her own protection. That is where the subjectivity of the process will appear since the choice of the type of protection and how it is used will be used is a subjective decision of the researcher.

For instance if a quantitative result is required the number of metaphors recognised using MIP can be used to derive the frequency of metaphor usage as it relates to demographic factors such as gender or education. This result can then be analysed statistically and expressed as graphs, tables or pie charts in the usual quantitative manner.

The differences in the nature of the metaphors in different texts could also be represented quantitatively by contrasting graphically the different numbers and types of metaphors used in texts with different topics.

If a qualitative result is required the metaphors recognised using MIP can be interpreted for their meanings as they relate to the participants' conceptions of whatever was discussed in the interviews while gathering the data. These results can be then expressed as statements about

how the person or group see their place in the world in the form of tables, charts and descriptions of the participants' conceptions.

There is no reason why both a quantitative and qualitative approach cannot be taken with the same data. Once the metaphors are isolated with MIP, the choice of which method to use to further the analysis is open to the researcher's choice. There is no reason why the further analysis cannot use both approaches. There is no need to limit the further work to just one approach.

Brannen (2005, p. 173) states that the fact that qualitative and quantitative research "hold different epistemological assumptions, belong to different research cultures and have different researcher biographies" is often given as a reason for keeping them separate. However, she goes on to argue that, in practice, they are mixed together in the process of research (Brannen, 2005, p. 173). She further argues that the distinctions that are claimed between qualitative and quantitative research break down in practice, as there "are more overlaps than differences". In enumerating the differences she shows that the two methods overlap most of the time (Brennan, 2005, p. 175). Brennan goes on to add that:

> A multi-method strategy should be adopted to serve particular theoretical, methodological and practical purposes. Such a strategy is not a tool kit or a technical fix. Nor should it be seen as belt and braces approach. Rather it is an approach employed to address the variety of questions posed in a research investigation that, with further framing, may lead to the use of a range of methods. (p. 182)

In other words, the two methods should be used together because they help each other to produce the best result not because they fill in the gaps in each other's usage.

Ercikan and Roth (2006) state that the dichotomy between qualitative and quantitative research distorts the results because the world has aspects of both qualities which will appear in the data gathered (Ercikan & Roth, 2006, p. 14).

Thus I would conclude from these comments and my own conjectures that combining the two methods of analysis, that is, using both qualitative and quantitative methods, would be the best way to process the data and use the information combined in them.

Conclusions

MIP is capable of providing much more than a list of the metaphors to be found in a sample of text. It can produce a qualitative or quantitative result with rigour, validity and repeatability. This is more than is provided by alternative methods of identifying the metaphors in a text. Thus MIP has a far wider application than the Pragglejaz Group (2007) describe in their paper. It has capabilities that make metaphor analysis a far more reliable and useful method of analysis than has previously been envisaged. MIP's important features are the reliability, validity, rigour and repeatability provided by a systematic and reliable method of obtaining the metaphors from the text being considered.

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