Measuring Metaphor*

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ABSTRACT

Unstructured interviews and open ended questions allow investigators to learn from experts without first being experts themselves. Structured surveys demand that researchers understand the theory, model and measures of all the variables of interest before interviewing the respondent. Unstructured interviews allow for a rich amount of information to be collected, but in a form that is very hard to compare across subjects, quantify, or rectangularize for statistical methods that rely on completely observed data. We study a two wave survey construction that allows the expository benefits of open ended questions to be coupled with the intercomparability of structured survey research.

We show the power of this measurement technique by investigating a measure for an increasingly studied, but pragmatically qualitative concept, the use of metaphor in political discourse. The application of this technique will be the investigation of "metaphors" in the cognitive science meaning where a metaphor is a mental model of a well known activity that allows a person to understand and define an activity they have not thought about. We will use unstructured interviews from different activities to allow respondents to explain how they conceive of an

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activity they participate in and understand well. Then, by randomly sampling from all of these open ended sentences across many different activities, and replacing the activity name with the name of the respondents own activity, we can quantify how similar the descriptions of other activities are to the participants understanding of their own activity.

The aim is that the rate of agreement will give a measure of how close the mental model of one activity is to the mental model of another activity, or the "strength" of one activity as a metaphor for the other activity. We are principally interested in understanding how strong different activities are as metaphors for political participation, and for voting. This is a subject that has previously received qualitative research by interviews with speech writers, political elites and by textual analysis of campaign speeches and party platforms, but has been largely unsuccessfully addressed by quantitative structured survey techniques.

1. INTRODUCTION

1.1. *Exploratory Research Methods and Quantification*

The unstructured interview is an extremely valuable tool that allows researchers to learn from experts without first being experts themselves. The very structure of the structured survey often demands that we know more than the subject, or minimally already know what the precise questions are that need to be asked. Instead, the unstructured interview may lead us in unexpected or unimaginable directions, or allow us to more fully explore concepts that we have no prior theory to explain.

With all these advantages, the interview may be rightly lamented as an underutilized tool in those fields of political science most reliant on quantitative studies, as it is often impossible to shoehorn the valuable information revealed in a series of exploratory interviews into a post hoc coding scheme (at least without extensive problems of missing data and scale construction). We discuss the advantages of unstructured interviews in section 2, as well as the well known problems of incorporating unstructured information in standard quantitative datasets.

In section 3 we investigate a methodology to take advantage of the exploratory strengths of the unstructured interview, without trading away the strengths of quantitative methods (such as in reducing the complexity of

large amounts of data, devising comparable indices and deriving measures of uncertainty). We set out a two wave design of unstructured interview across groups, followed by specific survey sampling. From this we propose to both explore and meaningfully measure concepts that are usually abandoned by statistical methods. We argue that in many complex topics, structured and unstructured survey interviews are not alternate approaches to investigation, but each are necessary steps to a research agenda that can be more explicitly and tightly combined.

In our application we attempt to demonstrate this by exploring and measuring a seemingly wholly qualitative (or even poetic) process, the metaphor. Building on the work of cognitive linguistics, particularly the influential approach of Lakoff and Johnson's *Metaphors We Live By* (1980), we propose a quantitative approach to measure the strength of the similarity of the cognitive frameworks used for two different processes. That is, if a metaphor TARGET IS SOURCE is proposed, we attempt to measure how much of the cognitive model used in the source activity actually mirrors the cognitive model used in the target activity. That is, if we believe POLITICS IS WAR is a good metaphor we wish to measure how closely the mental model of the activity of politics is to the mental model of war, and how well the rules we understand in war can structure how we behave in politics. Since this exploration can not be described by survey techniques, we try to take full advantage of the strengths of the unstructured interview, while still retaining the measurement and comparability benefits of statistical approaches. Cognitive linguistic models of metaphors are described in section 4 and our measure strategy is discussed in section 5, and briefly below.

1.2. *Measure Design*

In the first wave of our design, at a very low level of structure, we ask participants from certain groups to self describe the important aspects of their activity. In the follow-up wave, we use a structured survey. We randomly draw statements from across all the individual interviews in the first stage, but replace the original nouns and groups labels with those of the person taking the survey, and ask the survey respondent to agree or disagree with the statement. Thus they get a sample of statements, some of which were originally from their group (target) and are unchanged, and some from the null and source groups where the nouns are replaced.

By comparing the probability of agreement of between target survey respondents with target interview statements and null interview statements we can measure two baselines: what is the degree to which the respondent

agrees with other members of their own (target) group about the nature of their common activity (and likely, the maximal level of possible agreement), and what is the degree to which agreement comes about simply by chance because of the lexical vagaries of the interview process or the activity (that is likely, what is the lowest possible level of agreement).

With baselines established, we can meaningfully answer the question, how strong is the metaphor TARGET IS SOURCE by understanding how often self statements from the source group are accepted in the target group (after appropriate noun replacement), and how this scales between the target-to-target and target-to-null rates. Using this measure design we can evaluate the competing claims of different metaphors to describe an activity of interest, or understand how close the cognitive frameworks of different groups are.

Using this design, we measure the strength of two cognitive frameworks proposed in the literature: ARGUMENT/POLITICS IS WAR (Lakoff and Johnson, 1980), and POLITICS IS RELIGION (Charteris-Black, 2005) and POLITICS IS DANCE. We also attempt to unravel the cognitive model that governs the act of voting by exploring whether VOTING IS PRAYER or VOTING IS VOLUNTEERING or VOTING IS SHOPPING are strong metaphors.

With this measure design, we believe it will be possible to explore the similarities of the cognitive frameworks of different groups and groups over time. We believe we meaningfully quantify (with all the advantages of analytical exploration and comparison) the most qualitative of concepts, the metaphor, through the use of the unstructured interview (with all the advantages of exploration and completeness inherent in this traditionally qualitative instrument).

2. UNSTRUCTURED INTERVIEWS

In order to conduct a structured survey, you first need to know what questions to ask. This in itself requires a great deal of information and prior understanding about the topic of research. You need to know which dimensions need to be measured, which responses are possible, which alternate questions should be available. If theory testing is the aim, then you need to understand a set of alternate theories, and understand relevant ways to measure their implications and to distinguish between them. If at the end of the process you realize you omitted one key facet of one key variable, the entire process may need to be repeated.

The unstructured survey, the interview, the open-ended question, allow us a way for the respondent to communicate to us their knowledge of the

structure of the problem[1]. When the respondent is self aware to the questions we are interested in, knowledgeable and inclined to be truthful, the unstructured survey allows us immediate access to the dimensions of the question of interest. In the words of Dexter, a proponent and instructor on successful interviewing "In elite interviewing, as here defined, however, the investigator is willing and often eager to let the interviewee teach him what the problem, the question, the situation is–to the limits, of course, of the interviewer's ability to perceive relationships to his basic problems, whatever these may be." (Dexter, 1970)

One problem with unstructured surveys, however, is that the domain being researched may have many dimensions and variables. Any individual interviewee may only inform us about a few of these, either because they view the world differently, see different priorities, or understand different aspects or experiences[2]. If the complete picture contains many variables, any individual interviewee may only tell us about a few of them.

Aberbach, Chesney and Rockman (1975) clearly relate the problems faced by attempting to retrospectively code quantitative indices from unstructured interviews. "The more that is known," they write, "the easier it is to define the questions and the response options with clarity, that is, to use close-ended questions ... Emphasizing close-ended questions and tight structuring would not have served our major purpose, the exploration of elite value patterns and perceptions, but we did recognize the cost–the kinds of data we collected made it more difficult to produce an analytically elegant end product, at least if one uses statistical eleganceelegance as the major criterion in evaluating analytical elegance." (Aberbach, Chesney and Rockman, 1975)

As Aberbach goes on to frame the problem, unstructured interviews can be seen as an enormous, even insurmountable, missing data problem. Common statistical techniques rely on *rectangularization* of the data, whereby all the variables in a model are present and measured for every observation, and the model only uses the observations for which all the variables are completely observed. Unstructured interviews are likely to fill in only a subset

[1]We use the terms interview, unstructured survey and open-ended question somewhat interchangeably, with any distinction primarily a matter of degree as to the anticipated length of response, and the level of direct guidance and prompting on the part of the researcher. Our measure uses open ended questions, but we see a simple generalization to longer forms.

[2]In a perfect world, it is not simply enough that the interviewee be truthful, knowledgeable and self-aware – all inward looking characteristics – but they would need to have knowledge about how all other respondents see the world, and describe themselves relative to the variables they anticipate other respondents seeing as important. There is likely a German word for this.

of these variables for each respondent[3]

Another problem with trying to use statistical measures from unstructured interviews is comparability. Even if different respondents all touch on all the same variables in their own terms, it may be hard to compare their answers, or build a retrospective, quantified scale on which to place each respondent's revelations. In a roundtable on this subject, Leech highlights this point. "But the tendency for such interviews to wander off in unexpected directions–although they may provide for fresh ideas–almost guarantees that the interviews will not be a very consistent source of reliable data that can be compared across interviews. Unstructured interviews are best used as a source of insight, not for hypothesis testing." (Leech, 2002) This echoes the conclusions of Aberbach in his own attempt to try to retrospectively build comparable variables out of open ended interviews. His conclusion is "Open-ended questions provide a greater opportunity for respondents to organize their answers within their own frameworks. This increases the validity of the responses and is best for the kind of exploratory and in-depth work we were doing, but it makes coding and then analysis more difficult." (Aberbach, Chesney and Rockman, 1975)

2.1. *The complementarity of unstructured and structured surveys*

In summary, and returning to Dexter, unstructured interviews allow a great level of interviewee knowledge to be directly passed to the researcher, without the interviewer knowing more than the interviewee. Dexter describes this process as having three key qualities (Dexter, 1970) as they result in:

1. "stressing the interviewee's definition of the situation,
2. encouraging the interviewee to structure the account of the situation,
3. letting the interviewee introduce to a considerable extent (an extent which will of course vary from project to project and interviewer to interviewer) his notions of what he regards as relevant, instead of relying upon the investigator's notions of relevance. "

However, for all of these extensive exploratory benefits, and the ease and efficiency with which information can be passed on from the respondent,

[3]Although missing data is common in many aspects of survey research, and statistical approaches to these problems (Rubin 1987, Shafer 1997, King et al. 2001) have gained in scope and applicability, we judge that they have not reached the point of dealing with the sparseness common in interview situations.

the information that results is very hard to couple to standard statistical practices. First, this is because not all interviewees detail all the same points, so there is often an extensive missing data problem. Second, the information that is revealed is difficult to compile, compare and load across subjects onto a quantified measure.

Because of these difficulties, structured and unstructured survey interviews are often described as alternative approaches to investigation. Pika writes "A less structured format is relatively exploratory and stresses subject rather than researcher definitions of a problem." (Pika, quoted in Johnson, Joslyn and Reynolds 2001). Similarly, Leech above concludes "Unstructured interviews are best used as a source of insight, not for hypothesis testing." Thus it is tempting to think of unstructured surveys as the correct method when exploration and insight are desired, and structured surveys only being applicable when theory incremental and already well developed, or in domains where the questions are fundamentally obvious. In the extreme, one argument for the epistemological primacy of unstructured interview work, is that structured interview work can only proceed when the problem is already well understood, such that the variables and theories are known. In this view, unstructured interviews are a process of exploration; structured interviews are merely winnowed confirmation.

In many complex topics, rather than viewing these two approaches as alternative methods of investigation, their relative merits make them necessary and complementary steps to each other. These steps might commonly be divided between fields of researchers; unstructured researchers explore complex problems and develop theories and spot patterns, after which structured researchers collect appropriate measures and test and confirm these theories. However, this sequence can be more explicitly and tightly combined. In the two wave measure that follows, we use unstructured questions to let the interviewees detail their definitions of complex problems, and then use structured surveys directly formed from the open-ended questions to address problems amenable to the measurement abilities of statistical methods and structured surveys. Standard problems of comparability and completeness are solved by the linkages between these two survey waves.

3. METAPHOR IN POLITICS

In the influential work of Lakoff and Johnson (1980), *Metaphors We Live By*, a metaphor serves as a mapping from the cognitive model of one well-understood process, hereafter the *Source*, to another that is less understood, the *Target*. When in uncertain territory or confronting a new task we search

for a metaphorical likeness that describes appropriate actions. A metaphor is a functional equivalence between two domains. If an action is appropriate in the Source activity, then it is allowed in the Target activity. Metaphors are powerful (and also prevalent) in language because our cognitive processes are used to metaphorical thought. All the attributes and judgments of the source are immediately conferred on the target. They write:

> "The most important claim we have made so far is that metaphor is not just a matter of language, that is, of mere words. We shall argue that, on the contrary, human thought processes are largely metaphorical. This is what we mean when we say that the human conceptual system is metaphorically structured and defined. Metaphors as linguistic expressions are possible precisely because there are metaphors in a persons conceptual system." (Lakoff and Johnson, 1980)

A metaphor is a functional equivalence between two domains. If an action is appropriate in the Source activity, then it is allowed in the Target activity. Metaphors are cognitive models to guide understanding in complex or unfamiliar territories. Finding a metaphor brings guidance and constructs rules[4]. (It is notational convention in cognitive science and linguistics to use upper case to describe abstract propositions, and systems of metaphors are summarized as TARGET IS SOURCE.)

As a form of guidance in new and uncertain arenas, the metaphor is central to political understandings and political rhetoric. Policies are sold, spun or debated by framing complex policy choices as analogous to simple tasks. This has been true since the beginning of political thought. Richard Vernon (1959), in an early exploration of the use of metaphor in politics, writes that "since Plato's *Republic* at least politics has very often figured as the *explanandum* of analogy, the obscure field to be illuminated in the borrowed light of navigation or medicine or cookery of other examples."

The choice of metaphor defines how we envision politics and policy. Whether we see politics as "navigation or medicine or cookery" is crucial to the behavior of parties and the policy implications considered. Paraphrasing Lakoff on the subject of argument, the metaphor POLITICS IS WAR is common

[4]While Lakoff and his coauthors have had a profound effect on fields in cognitive science, and is the approach to understanding metaphor that we use here, their work can be related to many other theories of the meaning of metaphor, including Aristotelian theories in *Politics* and *Rhetoric*. See Kirby (1997) for a detailed discussion of the intersection of Lakoff with classical strands of thought.

and pervasive in our vocabulary of politics. Parties "gain and lose ground", they "fight battles on the Hill", they "capture issues", "develop strategies" and "attack opponents". In this war metaphor all the mental rules applied to politics are stacked up against any form of bipartisanship. Under this metaphor, bipartisanship is colluding with the enemy and traitorous. If instead we adapted another metaphor from Lakoff and could imagine a political discourse where POLITICS IS DANCE, and where "the participants are seen as performers, and the goal is to perform in a balanced and aesthetically pleasing way" (p.5) then bipartisanship would seem the correct and fitting function of government.

In more recent work, Jonathan Charteris-Black compiled a corpus of speeches from key historical political figures and documents the prevalence of metaphor in elite political speech (Charteris-Black, 2005). Winston Churchill extensively used metaphors of personification of the nation's problems, which we could summarize as the proposition THE NATION IS A PERSON. Across the speeches studied, nearly half of all the metaphors Martin Luther King uses invoke CIVIL RIGHTS IS A JOURNEY. Margret Thatcher successfully relied on the metaphor POLITICS IS CONFLICT to cement her position in the Tory party, while Clinton used POLTICS IS CREATION & CONSTRUCTION. These choices of metaphor shaped political history by defining what possible courses of action were allowed and expected. Churchill's metaphor of personification implied unity in purpose, in a time of crisis. King's metaphors of a journey allowed participants to see progress as a slow steady process without need of immediate results. Clinton's metaphor of construction is inherently cooperative, and allowed him to depict bipartisanship as good politics, in way that would not have been possible with Thatcher's metaphors of conflict.

Which metaphors dominate the political discourse go on to shape attitudes toward policy alternatives. Codings of newspaper articles have found prevalences of the metaphors IMMIGRANTS ARE ANIMALS (Santa Ana, 1999), and MONOPOLIES ARE DINOSAURS (White and Herrera, 2003) which have direct implications on appropriate policy toward the targets of Immigrants and Monopolies respectively. Similarly, in the lead up to the First Gulf war, Rohrer (1995) shows a conflict between elites attempting to claim the metaphors PERSIAN GULF CRISIS IS WW2 against PERSIAN GULF CRISIS IS VIETNAM, with dramatic differences in the policy implications of going to war. That the former metaphor seemed to win in the public discourse may have influenced why this metaphor persisted in the lead up to the Second Gulf war, and the popular expectation that the liberation of Baghdad would resemble the liberation of Paris.

All of this important work relies on corpus approaches. Relevant texts from political elites are collected, studied and coded. We can describe which metaphors are being used in discourse, which have become entrenched and which are being abandoned. Central to such studies is the idea that some metaphors are more successful than others, and that stronger, more successful metaphors will replace weaker models. As the metaphors shift, the mental model of the policy domain changes, and the set of feasible actions change. Successful political change may rely on rhetorical innovation as much as policy innovation.

All of these corpus approaches simply involve counting the prevalence of different metaphors in samples of elite discourse. To understand why one metaphor replaces another, or to predict which metaphors have the potential to replace the metaphors currently in use, or to understand which metaphors are convincing to which audiences, it is necessary to measure the strength of a metaphor. The strength of a metaphor is a property of its intended audience, and as such requires investigation of mass political attitudes rather than observation of elite level behavior.

4. MEASURE DESIGN

We want a measure of the strength of a metaphor. By this we mean, to what degree is the cognitive model of one activity appropriate to structure the cognitive model of another activity. That is, if a metaphor TARGET IS SOURCE is proposed, we would like to measure how much of the cognitive model used in the source activity actually mirrors the cognitive model used in the target activity. Since this exploration can not be described by survey techniques, we try to take full advantage of the strengths of the unstructured interview, as previously described as "stressing the interviewee's definition" and "encouraging the interviewee to structure the account of the situation."

Our survey measure is conducted in two waves. In the first wave of our design, at a very low level of structure, we ask participants from certain groups to self describe the important aspects of their activity with open-ended unstructured questions. What we aim for is that respondents will structure for us the mental model of a specific activity. If we use BAKING as our example we might structure the following open prompts[5]:

1. Please write one short concise sentence that describes one aspect of your understanding of baking.

[5]See Appendix A for the full prompt and wording.

2. Please describe one thing central to your understanding of baking.

3. In one sentence, please describe something fundamental about baking.

4. In a concise sentence, please describe something important about baking.

By asking these unstructured, open-ended questions to people who are interested in baking, we can get a corpus of statements describing the mental model of baking. This battery of open-ended questions are asked to a group of respondents who have self identified as interested in that particular activity[6]. Respondents are drawn from a variety of activities. Some are recruited from the TARGET activity of the metaphor we wish to measure. For this paper, we were interested in metaphors for POLITICS, and similarly for the more specific act of VOTING. Others are recruited from possible SOURCE activities. For purposes of conceptually grounding the scale, we also created a third group of activities, called NULL activities, which are explained in detail below. Primarily, NULL activities were activities we thought would have little conceptual overlap with the TARGET activity, that is, they are intentionally poor or mismatched metaphors. At the end of the first wave, for each respondent we have some sentences of open text that describe how that respondent understands aspects of an activity that they participate in and understand.

In the follow-up wave, we use a structured survey. We randomly draw statements from across all the individual interviews in all the activities in the first stage, but replace the original nouns and groups labels with those of the person taking the survey. We then ask the survey respondent to agree or disagree with the statement. Figure 1 represents an overview of the waves and sets of questions. We are fundamentally interested in the responses to the questions constructed in the structured wave for the members of the target activity (These are the questions represented in the bottom left box in figure 1). With POLITICS as our example of a target activity, we have a one set of respondents who have a mental model of politics. We are going to ask them to agree or disagree with a number of statements about POLITICS. Some of these statements were created in the first wave by other people interested in POLITICS. The rest of these statements were originally descriptions of other activities, say BAKING or DANCE or WAR, but have had their noun,

[6]Self identification into the activity is found by soliciting students who are members of relevant student activity groups, students who are political science majors (for interest in politics), and by online solicitation of students on Facebook who self identify that subject as an interest on their Facebook page.

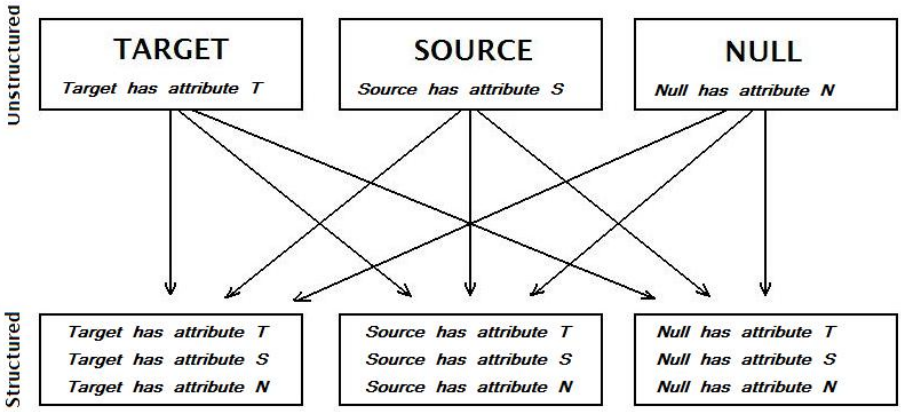

Figure 1: *An overview of the waves and respondent groups for the survey instrument. Each column represents a subset of respondents who have been recruited because of interest in a relevant activity, either the* ***Target*** *or* ***Source*** *activity in the metaphor being measured, or an unrelated* ***Null*** *activity useful in grounding the measure. In the first, unstructured wave, respondents give open-ended sentences describing how they view their activity. In the second wave respondents answer structured "agree/disagree" questions constructed from a random sample of the first wave responses after noun replacement with the respondent's group. Agreement rates of statements from different groups measure the similarity of the mental models of those activities.*

BAKING or DANCE or WAR, replaced with the word POLITICS. Thus target respondents get a sample of statements, some of which were originally from their own (target) group and are unchanged, and some from the null and source groups where the nouns are replaced.

Various agreement rates with these sentences from different original sources construct an informative scale of measurement. First and foremost, we want know how close the mental model of the target activity is to the source activity. We want to measure to what degree the rules and understandings in the source domain can be conferred or mapped to the target domain. This main measure of interest is calculated by the agreement rate of target responders to statements originally written by source responders, which have undergone

noun-replacement.

Second, there is the agreement rate of target respondents with other statements of target respondents. If everyone in the target group has the same mental model of their activity (and everyone can construct cogent unstructured responses) then everyone should agree with everyone else's definitions of their collective activity. However, it is possible that different people conceive of their activity in different ways. For some people politics may be about collaborative justice, and for others it may be a game of competing individual interests, and people with these competing mental models of politics would disagree with each others statements about the nature of politics, even though all the statements are unmodified. This rate of agreement *between individuals in the same group* is a useful, likely upper bound to the maximum level of statement agreement. If there is broad disagreement about the nature of the target subject we wish to measure potential metaphors for, it is unlikely any metaphor or mental model will satisfy all parties. The rate of agreement between different members of the target group about the definition of the target activity therefore provides a ceiling on the likely possible strength of any metaphor.

Finally, agreement with statements from the null group measures the degree to which agreement comes about simply by chance because of the lexical vagaries of the interview process or the activity (that is likely, what is the lowest possible level of agreement). If people respond, "Baking is a useful activity" then it is likely that such an inspecific and innocuous statement will translate effectively into any other activity. Thus the rate of agreement with an appropriately selected null activity provides a floor on the likely possible strength of any metaphor.

The agreement rates with statements from the target and the null groups provide references to conceptually anchor the scale. For example, suppose that in trying to evaluate POLITICS IS WAR, we had found that fifty percent of all statements originally about the mental model of war are applicable to defining politics. We would not immediately know if fifty percent is indicative of a strong metaphor or a weak metaphor until we have an understanding of the possibilities and limits of strong and weak. Different people may have different conceptions of, and deep divisions about POLITICS, and the rate of agreement between different people who were originally all describing the same thing may be very low. If only fifty percent of statements originally about POLITICS are agreed with in the second wave, then a fifty percent agreement to statements originally about WAR but noun-replaced to POLITICS is a very high rate of agreement and POLITICS IS WAR is a strong metaphor. The mental models of these two domains is very close,

and understanding about WAR can be used to shape and guide actions in the POLITICS domain.

At the opposite extreme, if language is so vague that fifty percent of any set of simple random statements about anything will be agreed to after noun-replacement, then language is vague, or specifically, the open-ended prompt in the first wave created vague responses. Thus the fifty percent agreement in our example means that POLITICS IS WAR has no strength as a metaphor.

Thus, after the second wave, we have a measure of strength of a metaphor, together with a conceptual upper and lower bound on that measure that help interpret the scale. Of course, understanding the agreement rate and the sample size and hierarchy of the questions also gives us a measurable uncertainty in our measure, as all useful sample statistics should include. However, in addition to simply quantifying an abstract notion, we can now compare across these measures and try to answer nuanced and important questions. For example, we could ask which of two metaphors is stronger, which might answer whether a metaphor in current discourse could be replaced by a new stronger metaphor not yet in use. Or, if we had repeated measures over time or populations, we could see whether the strength of a metaphor changes as the political discourse evolves, or whether the strength varies between types, constituencies or demographics. These are interesting questions we can address once we have a measure of metaphor, rather than simply a corpus count of its present use. To demonstrate, we measure and compare the strength of the metaphors POLITICS IS WAR (Lakoff and Johnson, 1980), and POLITICS IS RELIGION (Charteris-Black, 2005) and POLITICS IS DANCE. We also attempt to gain insight into the motivations of the act of voting by exploring whether VOTING IS PRAYER or VOTING IS VOLUNTEERING or VOTING IS SHOPPING are strong metaphors[7].

Please look to a subsequent draft of this paper for the results of this survey.

[7]For a discussion and overview of qualitative versus quantitative and rational versus empirical approaches to investigating the act of voting, see Campbell, 2006.

APPENDIX: PROMPTS

Prompt for first wave, unstructured open-ended questions. In this example the activity asked of the respondent is "politics" but this word is substituted depending on the relevant activity of the respondent.

This study is examining how people explain activities they engage in or are knowledgeable about. We are interested in how people describe the core features they find important or central to an activity.

The four prompts at the bottom of the page ask you to compose a short, concise sentence. All prompts are similar, but their wording may lead you to think of different directions of response. Try to compose one sentence in response to each of the four prompts, but feel free to skip any if you can not think of a response or have exhausted your different understandings of this activity.

As an example, if you were trying to describe the activity of baking, in response to the question "What do you find interesting about baking?" possible example answers might be:
"I enjoy baking because it is creative."
"I find baking relaxing."
"Baking gives me something I can share with friends."
"Baking teaches me things about other cultures."

In each answer, please explicitly use the word "politics", rather than another related word, or the word "it."

1. Please write one short concise sentence that describes one aspect of your understanding of politics.

2. Please describe one thing central to your understanding of politics.

3. In one sentence, please describe something fundamental about politics.

4. In a concise sentence, please describe something important about politics.

Prompt for second wave structured questions:

This study is examining how people explain activities they engage in or are knowledgeable about. We are interested in how people describe their understanding of an activity.

Please state whether you agree or disagree to each of the following list of statements. Agreement means you think this is a valid way to describe one aspect of politics. Disagreement means you do not think the statement describes the activity of politics.

If the statement seems slightly ungrammatical, please try to ignore that aspect of the sentence. Simply try to state whether you agree or disagree with what you see as the intended idea expressed.

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