

The Bankers Go to Washington: Theory and Method in Conceptual Metaphor Analysis

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Lloyd Blankfein, Goldman Sachs CEO :

Look, how would you look at the risk of four hurricane? The season after we had four hurricanes on the East Coast, which was absolutely extraordinary, versus the year before [when] rates got very low for risk premiums on the East Coast of the United States. That year, after four hurricanes, everyone's nerves were such [that] rates went up spectacularly.

They're lower again. [...]

Is the risk of four hurricanes any different any of those times?

FCIC Chairman Angelides:

Mr. Blankfein, I want to say this. Having sat on the board of the California Earthquake Authority, acts of God we'll exempt. These were acts of men and women.

Testimony from the Financial Crisis Inquiry Commission
First Public Hearing, 13 January 2010 (FCIC 2010, p. 36).

Was the 2008 financial crisis precipitated by an 'Act of God' or by the 'acts of men and women'? The metaphoric stakes are high. In characterizing the financial crisis as a bad hurricane season, investment bank Goldman Sachs CEO Lloyd Blankfein attempted to minimize the banker's responsibility for the financial crisis, while by rejecting the characterization FCIC chairman Angelides asserted that the bankers were in fact responsible for it. On Blankfein's view, the crisis was the product of systemic failings that were not just unforeseen but unforeseeable; on Angelides' view, the crisis was not just foreseeable but also preventable. At stake, of course, is the prospect of increased regulatory scrutiny for the mortgage, investment and other banking industries - and possibly, though perhaps an unlikely worst-case scenario, criminal prosecution of the banks and bankers themselves.

Notice, however, that there is something of a metaphoric non-sequitur in the preceding passage. Blankfein offers the example of a bad hurricane season on the East Coast, and Angelides responds by citing his experience with California earthquakes. This illustrates an all too often obscured central tenet of conceptual metaphor theory—as structures of cognition and not of language alone, the conceptual metaphor is most aptly stated at a generic level. Thus the most appropriate name for the conceptual metaphor at work in this passage is neither FINANCIAL CRISES ARE HURRICANES (*à la* Blankfein) nor FINANCIAL CRISES ARE EARTHQUAKES (*à la* Angelides), but the more generic ECONOMIC PROBLEMS ARE NATURAL DISASTERS. While the surface level evidence for a conceptual metaphor may come from one specific case of a metaphor for one particular speaker and a second specific case for another speaker, the level at which the metaphor *qua* ‘conceptual metaphor’ is cognitively embodied (and at which the reasoning takes place) is often more generic than what a first pass at identifying a conceptual metaphor might surmise. What may at first seem like a bit of a ‘mixed metaphor’—earthquakes and hurricanes—is a move to consider a deeper, more elemental level of the underlying reasoning.

The metaphoric content of this striking exchange did not go unnoticed at the time. This exchange and other related uses of metaphoric reasoning during the hearing prominently framed the reporting in several immediately subsequent news articles, including a widely republished Reuters article headlined “Metaphors flying at Wall Street bankers hearing (Drawbaugh 2010; Holland 2010; Sorkin 2010; Ydstie 2010).” In a *New York Times* opinion piece published two days after the exchange, Paul Krugman (2010, p. A17) pointed out that these uses of metaphor were deliberate and intended. He rhetorically asked:

Was Mr. Blankfein just inarticulate? No. He used the same metaphor in his prepared testimony in which he urged Congress not to push too hard for financial reform: ‘We should resist a response ... that is solely designed around protecting us from the 100-year storm.’ So this giant financial crisis was just a rare accident, a freak of nature, and we shouldn’t overreact.²

² Note that Krugman errs when he quotes Blankfein’s (2011) use of the 100-year storm metaphor in his prepared testimony (opening statement) at the FCIC hearing. That sentence is a quotation from Blankfein op-ed that appeared in the *Financial Times* the day before the hearing, and was also attached as an appendix of the final FCIC report. The metaphor of a financial storm did occur in one of the opening statements, but it was from Mack, the CEO of Morgan Stanley: “... we were in a better position than many of our peers to weather the financial storm that occurred in late 2008.”

There are at least two reasons why this and similar metaphors received so much attention from the press. First, and in what was at times an otherwise tedious public hearing, this exchange was both flamboyant and confrontational. Second, and as Krugman notes, the proffered metaphor was deliberately exculpatory. If the giant financial crisis was a rare freak of nature to which one should not overreact, it follows that the risk management practices of the Wall Street bankers were fundamentally sound and need little, if any, increased regulatory oversight from Washington. In other words, the metaphors in this exchange and other similarly flamboyant passages³ crystallized the key issue before the FCIC: whether “the financial crisis was avoidable” (FCIC 2010, p. 188).

Taken in reverse order, these two points illustrate two more tenets of conceptual metaphor theory. The first tenet is rather apparent—some of the attributes mapped by a conceptual metaphor can be mapped via a disanalogy, or by rejecting the inference the metaphor engenders, just as easily as they can be mapped by an analogy or a similarity of some sort. This is precisely what Angelides does. Notice Angelides doesn’t reject the metaphor outright, but instead steps into the ECONOMIC PROBLEMS ARE NATURAL DISASTERS metaphor—or his own version of it—by citing his service on the *earthquake* authority. He then draws on the common insurance parlance for risk management—referring to an earthquake as an ‘act of God’—in order to contrast such earthquakes and other types of natural disasters with the acts of men and women, or the investment bankers, ultimately emphasizing exactly the opposite conclusion Blankfein would have preferred to engender with the metaphor. In the FCIC final report, the Angelides-led Democratic majority writes: “The crisis was the result of human action and inaction, not of Mother Nature or computer models gone haywire” (FCIC 2011, p. xvii).

The second tenet stems from the fact that we, journalists and non-journalists alike, tend to notice a speaker’s metaphors when they are flamboyant, when they are consciously offered, and the unusual language enlivens an otherwise dreary passage. But in conceptual metaphor theory these ‘live’ metaphors are simply the tip of the iceberg, and submerged beneath the surface is a vast system of ordinary ‘dead’ metaphors that make the dramatic rhetorical flourishes intelligible. For example, relatively ‘dead’ (or conventionalized) instances of the earthquake version of the metaphor

³ E.g., Angelides suggested credit default swaps could be understood as if the bankers were selling cars with defective brakes and then taking out a life insurance policy on the buyer (FCIC 2010, p. 30; Holland 2010).

are endemic in the ordinary language of financial crises—we hear and speak of financial “shocks”, “foreshocks”, “tremors” and “collapses”—and as we shall show momentarily, such examples are widespread throughout the bankers’ testimony during the Congressional hearings on the crisis. Researchers (Steen, Dorst, Herrmann, Kaal, & Krennmayr, 2010) who made a recent study of a large corpus of English language texts report that 99% of the metaphors they found were conventionalized and innocuous, while less than 1% were conscious attempts to have the metaphor play persuasive and deliberative roles in the rhetorical and pragmatic context. The press chose the Blankfein-Angelides exchange to frame their reporting precisely because it was a conscious use of metaphors to shape the pragmatic reasoning about what reforms of the financial industry would come from these Congressional hearings.

We write ‘hearings,’ plural, because the FCIC hearing was not the first time the bankers were summoned to Washington. Eleven months earlier, on 9 February 2009, the CEOs of the same banks⁴ were also summoned to testify at the so-called TARP (Troubled Assets Relief Program) hearing, which was in fact a hearing of the House Financial Services Committee. In order to investigate whether the underlying conceptual metaphors shaped not just the dramatic and eye-catching moments, we carefully defined a primary textual corpus sample consisting of the prepared testimonies of the four CEOs whose banks were summoned to testify at both hearings, and closely and systematically analyzed the conceptual metaphors and the metaphoric reasoning used therein. Our research interests included questions as to whether the same speakers used the same metaphors at both hearings, and whether was any contagion of metaphors from one speaker to another across time. We later expanded this primary corpus in two directions: first to include the statements of the other speakers, such as politicians, at the hearing and the final reports and supporting documents produced by the committees; and second to include the press reports, opinion pieces and non-fiction books written about these hearings and the 2008 economic crisis.

We also do not write “summoned to Washington” lightly. While none of the bank CEOs were subpoenaed to appear before either committee, it is important to note that both committees had subpoena power to exercise should the CEOs not have agreed to appear at the hearings. The testimony from the bankers was thus both invited and

⁴ Eight bank CEOs testified at the TARP hearing. We focus primarily on the testimony of the four banks as given by their CEOs (five individual speakers as Bank of America had a leadership change) that were invited to both the TARP and FCIC hearings.

compelled, and their testimonies were carefully crafted to paint their banks' actions in the best light possible and to minimize any potential consequences ranging from increased regulatory scrutiny to criminal charges. In this sense, the bankers were performing what Goffman (1967) has called "important Face-Work": they were acting to preserve their own best interests when confronted by a 'total institution'.⁵ In a legal review of whether speakers compelled to testify before a Congressional committee should exercise their fifth amendment right against self-incrimination, Iraola (2003, p. 961) notes that "congressional staffs normally have completed an extensive review of the facts before public hearings begin. Hearings, then, are held (often in front of television cameras) more for the sake of presenting, rather than gathering, the facts." Both of these hearings were not just televised but received intense media scrutiny; a misstep could cause the bank and banker not just to lose face but also to lose trust and money. Assessing the success and failure of the bankers proffered conceptual metaphors will require attending to not just the cognitive questions of how conceptual metaphors shaped the cognition of each speaker, but also attending to the pragmatic questions of speaker, audience and purpose that face-work theory emphasizes.

At this point, several of the more hotly contested theoretical issues concerning conceptual metaphor theory are on the table. For example, conceptual metaphor and related cognitive linguistic theories have been criticized for failing to clearly articulate whether the conceptual metaphors are being described from standpoint of one speaker, another speaker, a listener, the audience, or as implicit in the communicative dialogue. In other words, whose cognition are conceptual metaphor theorists purporting to capture? We will discuss this issue both with respect to the strengths and limitations of importing statistical methods from corpus-based linguistics into conceptual metaphor theory, and with respect to how incorporating face-work theory from interaction sociology and insights from the French dialogic tradition of pragmatics (e.g. Benveniste 1971) can improve a conceptual metaphor theory. These provide us with a constructive way to investigate not just the cognitive dimension of how conceptual metaphors are embodied and but also how metaphors are socially embodied, situated and pragmatically used.

II: Theory and Method: The powers and perils of corpus linguistics

In David Lodge's (1984, pp. 183-185) academic satire *Small World*, an author struggling to write another novel encounters a computational

⁵ A Congressional hearing perhaps only partly satisfies Goffman's conception of a total institution, but has the potential to lead to jail time and criminal investigation.

linguist who has applied corpus linguistics methods to his previous work. Confronted by the minutiae of the statistical analysis as to what word form—grease/greasy/etc.—he uses most frequently, how his writing differs when his male versus his female characters speak, etc., the novelist's waning confidence in his own creative powers deteriorates and he credits his encounter with corpus linguistics with extending his writer's block another six years. Conceptual metaphor theory faces a similar problem in its encounter with corpus linguistic methods: If what is most theoretically innovative about conceptual metaphor theory is that it restores the focus of semantics to the embodied ways in which people use language to create meaning, what role (if any) should statistical methods of corpus linguistics play in the methodology of conceptual metaphor theory?

Two recurrent and often intertwined criticisms of conceptual metaphor theory are that its methods are too *ad hoc* (Low, 1999) in that the identification, collection and analysis of metaphors seems to be governed by nothing more than a introspective gut check by the practitioners; and that its methods are so imprecise that what counts as evidence is in fact so theory-laden as to constitute circular reasoning. There are, of course, several standard responses to these criticisms. When confronted with the argument that cognitive linguists such as Lakoff (1993) were hardly more 'empirical' than Chomskyan linguists in that their ad-hoc examples were not properly attributed and sourced from naturalistic data, researchers began to adopt discourse-based methods and work with a small defined corpus, properly sourced and attributed. However, researchers such as Deignan (2005) argue that such discourse-based methods are not truly representative of corpus-based research methods, which use the identifications made on a small sample of the texts (i.e. the discourse) to investigate a larger corpus.⁶

As Deignan (2005) sees it, one key difference is that discourse-based conceptual metaphor research rarely involves testing the underlying theoretic assumptions of conceptual metaphor theory. She points out that this might not be the most apparent difference, which she points out is simply that corpus-based and corpus-driven research rely on large-scale, "balanced" electronic corpora that require using computer-based concordance searching methods, as opposed to conceptual metaphor theory's use of a small collection of naturalistic

⁶ Deignan's presentation of the theory-laden criticism of discourse methods of analyzing metaphor appears in *Metaphor and Corpus Linguistics*, John Benjamins, 2005, pp. 123-135. However, we should acknowledge that Deignan also anticipates some (but not all) of the limitations we find on corpus-based methods in her article "Corpus-based research into metaphor" (Deignan 1999).

discourse which is then analyzed by hand. She suggests that this paucity of inquiry into the underlying theory may result from a difference in aims, in that many such conceptual metaphor studies seem to her exercises in an applied conceptual metaphor analysis of topic *x*, in which the conclusions drawn are about topic *x* and not about conceptual metaphor theory *per se*. As she writes that such studies often treat political and ideological issues (she did not consider any of the numerous metaphor analyses of topics such as scientific discourse), she argues that such attempts to answer the ad-hoc criticism using a naturalistic discourse often leads to a temptation to draw political and ideological conclusions that are theory-laden rather than testing anything about conceptual metaphor theory itself.⁷

Sceptically, we might well inquire whether Lodge's humor has theoretic bite here. Are purely quantitative (i.e. corpus-driven) methods the only methods that can test the underlying theoretic assumptions of conceptual metaphor theory? Or are they as potentially detrimental to studies which would put qualitative meaning first as they were to the struggling novelist? One can surely suffocate any interesting insights in a sea of statistics of questionable value.

Perhaps instead of corpus linguistics serving as the arbiter of conceptual metaphor theoretical claims, the shoe should be on the other foot. What does corpus linguistics, with its reliance on large corpora and electronic concordance searching methods, potentially obscure? Statistical methods 'normalize the speaker' as they calculate frequency—in other words, they obscure the pragmatic context of who is speaking to whom, when, and for what purpose.⁸ Such

⁷ Naturally, and given the political import of the present topic—the 2008 financial crisis—we are concerned that such critiques might both be cautionary yet also a false dilemma. Surely we can have some interest in saying something interesting about the financial crisis itself, and yet simultaneously say something interesting about conceptual metaphor theory itself!

⁸ Not all utterances of a conceptual metaphor are created equal. They are not spoken by the same speaker, at the same time, or for the same reason. Recall the Blankfein-Angelides exchange. We—along with the journalists who covered the event—see this exchange as pivotal because of the differing entailments for public policy depending on whose version of the same metaphor ultimately succeeds as the normative understanding of the financial crisis. A corpus-based comparative study of 'metaphor' frequency, for example, which failed to divide the measure of frequency as to before and after such a pivotal moment would not be a sound test of the validity of conceptual metaphor's pervasiveness claim. Moreover, such an analysis would also fail to acknowledge a fundamental capacity of conceptual metaphor: To persuade us to change our minds. Sampling is not only topical; it is subject to time, persuasiveness, and other pragmatic factors. In fact, there may be—and in our study there are—multiple pivotal uses of metaphorical persuasion that both greatly complicate and diminish the

methods could obliterate the differences between speakers, obscuring the logic and implications for public policy each speaker wishes to engender. Even worse, an overreliance on brute force search methods could present Blankfein's "hurricane" and Angelides' "earthquake" metaphor as two different metaphors to be counted and treated as isolated occurrences instead of as instances of the same underlying conceptual metaphor. Problems like these were not infrequent in our attempt to combine corpus-linguistic methods with the discourse-based methods of conceptual metaphor theory, and required constant tweaking of the search procedures and classification schemes.

Like Deignan (2005), we do see some value in incorporating corpus-based linguistic methods into conceptual metaphor studies and, in fact, in our present work we utilized one approach to the type of blended methodology she advocates. However, we do not agree with Deignan that the added value results from using corpus linguistics methods as a methodological precision check on discourse-based methods. While we would certainly acknowledge that such methods can provide added precision with respect to one claim of conceptual metaphor theory—that the live metaphors are the tip of a large iceberg of deeply conventionalized metaphors—and certainly would acknowledge that such methods extend the reach of metaphor researchers by identifying candidate passages for further analysis in increasingly large corpora, we found the primary utility of corpus linguistics methods to lay elsewhere. In our view, the single most useful importation from corpus-based research methods lay in training the intuition of the metaphor analysts by importing the practice of inter-rater (or inter-coder) reliability ratings as an empirical check as to the degree to which they agree on their metaphor identifications.

We see our present work as being closer to the spirit of Charteris-Black's (2004) recent attempt to blend together three strands of linguistic analyses—corpus linguistics, conceptual metaphor theory and critical discourse analysis—into a methodology he termed Critical Metaphor Analysis. By using sampling and corpus-based methods as a tool, but expanding the investigation of each metaphor found to also include a critical judgment about whether each instance of a metaphor was a metaphor with respect to its linguistic, cognitive and/or pragmatic tension, Charteris-Black developed a synthesis of quantitative and qualitative methods that addresses the issue of whether a metaphor was rhetorically employed to persuade.

value of frequency analysis as an indicator of how pervasive a conceptual metaphor may be.

Recording an assessment as to whether the metaphor had pragmatic import as a deliberate attempt to persuade the hearers was a valuable contribution that we adopted in our methodology.

We further agree with Charteris-Black (2004) that corpus linguistic methods alone are not enough to answer the first of the criticisms about metaphor theory—the ad-hoc criticism is not simply about from where the data is sourced and whether it is empirically and naturalistically gathered—it is also about the failure of conceptual metaphor theorists to develop a step-wise, replicable procedure for identifying and analyzing metaphors. Fortunately, this too has been a subject of some recent debate in conceptual metaphor theory, particularly in the work of researchers such as the Pragglejaz group (2007), Steen (2002, 2007), and Kövecses (2002), and in Charteris-Black and Musloff's (2003; 2002) work, all of whom have been unusually clear in describing their procedures for identifying metaphors. However, all of these approaches to metaphor identification tend to overemphasize 'metaphor' as a matter of the lexical level unit (i.e., the linguistic instances of a metaphor), while overlooking the importance of the logic of the metaphor in the context of the passage.⁹ This is

⁹ Krennmayr (2008) has explored similar criticisms of the Pragglejaz metaphor identification procedure. We share her concerns that Pragglejaz's reliance on ordinary dictionary definitions and its focus on determining meaning at the lexical level rather than at the phrasal and contextual levels fails to identify a number of metaphoric phrases which extend throughout a passage but are perhaps used literally in the immediate sentential context. Furthermore, we share her concerns that the lexeme-and-dictionary approach of the Pragglejaz method has difficulty identifying novel expressions derived from the role certain conventional conceptual metaphors play in a specialized discourse. For example, "liquidity", "cashflow", and "capital reserves" are relatively conventional instances of the MONEY IS LIQUID metaphor even for the general public, but within the literature on economics the notion of a "tranche" (from French for trench, slice) acquires a specialized but non-novel meaning as a method of channeling the flow of revenue from pools of loans. In our primary corpus, we observed Bank of America CEO Moynihan use this obscure extension of the MONEY IS LIQUID metaphor in his FCIC testimony: "Thus, in a typical CDO, or collateralized debt obligation, lower tranches of mortgage-backed securities would be pooled, and the payment stream from those mortgage-backed securities assigned different priorities, with different tranches of the CDO receiving different rights to payments." The financial journalist Gillian Tett makes the logic of this metaphor clear to outsiders: "The basic concept behind the tranches in CDOs [collateralized debt obligations] was that when mortgage borrowers paid back their loans, the cash from those repayments would flow into the different tranches like a river pouring down a waterfall into several stacked buckets. The 'senior' tranche would be paid first, and when those note holders had received their due, the cash would spill down to the mezzanine tranche, and so on, to the junior level. If the flows ran a little dry because mortgage borrowers were skipping payments, there would not be enough to fill the bottom bucket. But as long as some water flowed, the senior note holders were safe" (Tett 2009, p. 201). A similar explanation of "tranche" was also given in the transcript of the radio program *This American Life* episode entitled "The Giant Pool of Money" (2008, pp. 11-12). Our

perhaps in part due to the Pragglejaz group's intention of developing a method suitable to be used with large, precoded electronic corpora. While we found the stepwise characterization of the metaphor identification procedure of the Pragglejaz group laudable, we did not see it as fully developed.

Our methodological procedure, including the training of a researcher new to the field, had ten points of emphasis. First, we identified our target texts. We drew our examples first from our defined corpus, or discourse sample, which consisted primarily of the prepared testimony of the bankers themselves; after that was complete, and secondarily, we drew from the statements of the politicians during the hearing and the committee's final reports. After each of those initial analyses was complete, and solely for purposes of clarity in presentation, we eventually drew some examples, marginally and only as tertiary support, from the media coverage of the hearings by financial journalists, news reporters, opinion columnists, and others not speaking in the hearings themselves, such as the Krugman (2010) column and news headline already quoted. During the period of analysis of the primary corpus, we attempted to maintain as much rater naiveté as possible by agreeing that the researchers should scrupulously avoid (to the extent possible as a modern human living in a media-saturated world) tertiary media reports summarizing the particular hearings we would take as the primary texts. We reserved such journalistic texts, along with a trove of book-length treatments written by journalists, for analysis in a third expansion of the corpora.

Second, the expert metaphor analyst (Rohrer) trained the novice analyst (Vignone) using interrater reliability techniques on successive samples from the text until we achieved a degree of percent agreement (>80%) we judged sufficiently high for one rater to address all of the texts (Lombard, Synder-Duch, & Campanella Bracken 2008), particularly once we analyzed the pattern of disagreement—which were often omissions rather than misidentifications. Third, we employed a four-pass approach by reading the texts several times: once for comprehension; a second time to identify candidate metaphors; a third to identify the domains and mappings both at a generic and speaker-specific level of analysis, and a fourth with an eye to identifying how the logic of a metaphor worked and how multiple conceptual metaphors cohered (or did not cohere). Fourth, we focused on identifying metaphor at the phrasal and not at the lexical level, as

contextual and phrasal approach to identifying, counting and analyzing the logic of such metaphors has significant advantages over the dictionary-based Pragglejaz approach.

the Pragglez group does. By phrasal level, we mean that we specifically expanded the scope of our metaphor identification procedure to attend to passages of 25-50 words in length wherein there were multiple collocated and extended instances of metaphor, while generally reducing the consideration we gave to a candidate metaphor word that occurred in relative isolation from other candidates. During this pass we generated initial keyword lists of candidate metaphor terms and candidate contextual terms; these lists were further refined during the following steps and would later provide the basis of the corpus linguistics search methods used in investigating the larger-scale corpora. We followed Charteris-Black's (2004) approach to a metaphor identification procedure in that after we identified each candidate metaphor phrase we also judged whether its semantic tension was linguistic, cognitive and/or pragmatic.

Fifth, we offered an initial attempt at naming the underlying conceptual metaphor on that second pass, grouping instances of metaphor under a broader conceptual metaphor. The initial attempts at classifying the instance of the metaphor as a conceptual metaphor were often revised later in the course of the analysis, particularly with respect to restating the underlying conceptual metaphor at a more generic level and consequently classifying more examples together. In some cases instances of metaphors were classified as belonging to multiple metaphor systems, either because they were relatively isolated and the pragmatic context was too indeterminate to classify them, or because they served as focal mappings where two or more conceptual metaphor systems cohered. Those instances of metaphors which were identified but assessed as not being part of a system elsewhere represented in the same speaker's discourse or in the entire primary corpus provided us with particular problems and were flagged for later review for when we expanded the corpus to include other speakers such as the politicians or the press; fortunately most of these cases were also assessed to be not topical and salient.

Sixth, we added to the metaphor identification procedure of that second pass our initial judgments about whether the conceptual metaphor identified was topically relevant to the banking crisis, and if the metaphor was topical, how salient that metaphor was in framing the speaker's overall discourse. Both objective and subjective criteria were evaluated in determining a metaphor's salience; we calculated the frequency of occurrence for each topical conceptual metaphor in each speaker's discourse in each hearing as well as made a judgment as to whether that conceptual metaphor played a role in framing the speaker's discourse on that day. In one instance, our initial judgments

about the salience of one particular conceptual system (KNOWING IS SEEING) used by multiple speakers across many hearings had to be revised as we later came to realize that while many instances of the metaphor system were only marginally topical and not particularly salient, one particular subset of this metaphor's mappings turned out to be particularly salient (i.e., those concerning the transparency and opacity of banking practices).

Seventh, and on a third pass, we revisited the conceptual metaphor classification we had set up as we developed mappings for each topical conceptual metaphor. We developed these mappings using multiple substeps: First, we considered each domain of the conceptual metaphor separately and listed elements commonly associated with each domain. Second, we attempted to identify possible counterparts of the source domain list in the target domain as an idealized, "generic-level" metaphor mapping, intended to summarize our understanding of what the speakers had said. At that point, and as a third substep, we returned to the text to examine how well the resulting "generic-level" mapping was reflected in the actual instances of metaphors we had identified for each speaker in turn, generating a "speaker-level" mapping for each speaker's discourse.

Eighth, and as an intrinsically important step often not explicitly done by other conceptual metaphor theory practitioners, we used a simple formal notation scheme to present those metaphor mappings:

Figure 1: *General Mapping of MONEY IS LIQUID across speakers and hearings*

| LIQUID (source domain) | | MONEY (target domain) |
|---------------------------------------|---|--|
| flow | ⇒ | cash flow |
| moves freely | ⇒ | money moves freely |
| cycle of waves | ⇒ | financial cycles |
| frozen liquids don't move | ⇒ | frozen assets, credit freeze, frozen markets |
| liquids evaporate, dry up | ⇒ | money supply disappears |
| liquid solvents can dissolve objects | ⇒ | solvency means that if there is enough money to cover the debt, it can make it disappear |
| water amasses in pools and reservoirs | ⇒ | money can amass as pools of funds, capital reserves |
| concentration- % of solutes | ⇒ | concentration % of assets in |

| in solution | | a portfolio |
|--------------------------------------|---|--|
| water is channeled to irrigate farms | ⇒ | money is channeled to investments |
| heavy solids sink in liquids | ⇒ | large debts can cause a business or person to be over their head, underwater, sink or even drown |
| lighter solids float in liquids | ⇒ | If able to pay debt, a business or person can stay afloat |

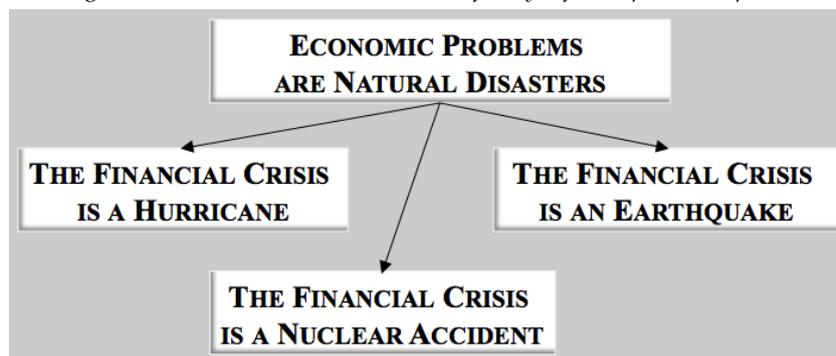
Putting the conceptual metaphors into a formal notational scheme often occasioned revisions to the initial mappings we made in the seventh step, and we would observe that conceptual metaphor theory analysts who do not present mappings diagrammatically but in prose alone often describe tenuous, premature, and inaccurate mappings. In fact, we performed this step for each speaker at each of the two hearings individually, with each mapping limited to the mappings made in the evidence from each speaker's discourse, as well as formalizing more generic mappings intended to capture a speaker across the two hearings, etc., and only eventually for all the speakers in the corpus. The dialogue between mappings tied tightly to evidence from each speaker and the generic mapping provided us with insight into both how the specific speakers used each metaphor pragmatically and into what was more central and more peripheral in the generic metaphor mapping. Those cases in which a mapping was multivalent (i.e. had multiple possible mappings depending on the speaker) were generally judged to be more peripheral and less central elements in the mapping. In some cases, the evidence for a particular generic metaphor mapping was underspecified in the evidence drawn strictly from the primary corpus, and we noted these as predictions of what we might find when we would later expand the scope of our corpus.

Ninth, and on a fourth pass, we again reread the texts, this time focusing on passages exhibiting either metaphoric logic and/or the coherence of multiple conceptual metaphors in framing each speaker's discourse. Generally speaking, but not always, analogical reasoning using a conceptual metaphor draws only on a single conceptual metaphor in guiding the inference. If there is a dispute as to the propriety of the speaker's conclusion in the inference, it is typically challenged by a second speaker seizing on a related but previously

unused part of the source domain language—as seen in the ‘Act of God’ language in the Blankfein-Angelides example already discussed.

But seeing this example as governed under a single conceptual metaphor system requires understanding how multiple instances of metaphors cohere together. Coherence, or how metaphor systems hang together, falls out in two distinct patterns. Sometimes conceptual metaphors are related as members of a larger, more generic conceptual metaphor, as when a speaker-specific use of a metaphor (Blankfein’s hurricanes or Angelides’ earthquakes) is restricted to a particular type of a generic thing (natural disasters). At a speaker-specific level, then, it is often the case that we would initially name the conceptual metaphor after hurricanes or earthquakes, but when considering the logic of the metaphor and how they cohered, we would come to adopt the more generic name for the metaphor and reclassify the speaker-level conceptual metaphors as instances of it. This is an example of what we noted before, that the second-pass metaphor names were provisional and subject to later revision.

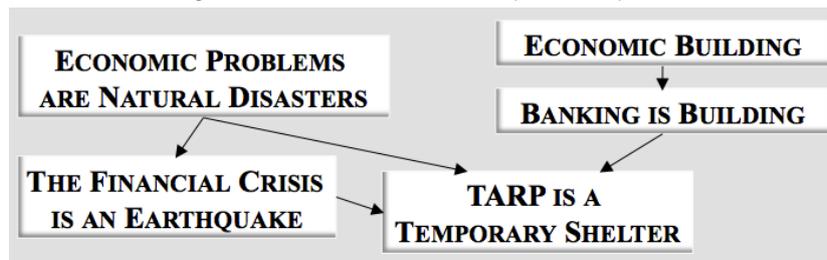
Figure 2: *Inheritance and coherence in a “family” of conceptual metaphor*



In the other pattern of coherence we see multiple distinctly different metaphor systems which share one or more elements and hang together partially, but not in a superordinate-subordinate or parent-sibling-sibling relationship. Instead, their interaction may be characterized as somewhat more akin to a Venn diagram in which some shared elements ‘belong’ to the places where both metaphor systems overlap. As an example of this, consider the common acronym TARP, which stands for the *Troubled Asset Relief Program of the 2008 Emergency Economic Stabilization Act*. In ordinary usage, a ‘tarp’ indicates a waterproofed cloth covering. A tarp can be erected a temporary shelter, and in fact are often used in natural disaster relief

efforts. But as a temporary shelter, a tarp serves as a type of building. Moreover, for buildings under repair tarps are frequently employed to provide temporary shelter until repairs can be completed. Would a metaphorical use of the term—and not all uses of the acronym would be, or are metaphoric—belong to the ECONOMIC PROBLEMS ARE NATURAL DISASTERS metaphor or the ECONOMIC INSTITUTIONS ARE BUILDINGS metaphor? Our answer is that the TARP nomenclature is a shared element in both metaphors, and was conceived both in terms of a disaster response and in terms of repairing and reinforcing the banking institutions. It is example of how conceptual metaphors cohere, or hang together, in the process of developing a solution to a difficult problem. For purposes of counting, however, we typically classified its use under the NATURAL DISASTER metaphor system due to contextual factors.

Figure 3: *Coherence between conceptual metaphors*



Tenth, we analyzed and formalized the metaphoric coherence and logic of these passages using several more simple diagramming techniques. As is commonly done when genealogical or cladistic charts are applied to intellectual matters, superordinate conceptual metaphors that are increasingly generic are represented as more abstract by placing them physically higher in the diagram with lines drawn to their ordinate children—that is, the more specific conceptual metaphors (figure 2). Coherence in metaphors via overlapping elements and shared entailments, such as with the example of the TARP, are presented as points of common reference between the multiple metaphors beneath the level of more specific metaphors (figure 3). Actual instances of the metaphors (the linguistic evidence) would be grouped even lower under each of the metaphors, but are omitted from this diagram. It is important to note that these ‘tree of knowledge’ diagrams normally also hide which speaker uttered which metaphors, and we again drew both more generic and speaker-specific versions of these diagrams.

We employed a similar process as we diagrammed the metaphoric logic a speaker employed in a particular passage. We lay out the premises and conclusion(s) of the source-domain inference (typically a pragmatic inference) in the left-hand column, and the parallel target-domain inference in the right-hand column.¹⁰ Each step of the source domain inference should be analogically (or disanalogically) equivalent to that in the target-domain reference. For purposes of the analysis, the phrases which evidence each mapped step in the inference were listed in parenthesis after each step, but moved above or below the diagram for legibility purposes when presented (figure 4). Ideally, evidence for each step in the analogy should come from the immediate context of the passage; however, speakers rarely provide us with complete and perfectly reasoned inferences, particularly when speaking off-the-cuff and not simply reading a prepared statement. In cases where we had to provide evidence from elsewhere, we attempted first to provide evidence from the same speaker on the same day, second from the same speaker across time, and third to introduce evidence from other speakers. In general, these diagrams are drawn at a speaker-specific level; more rarely, as in the Blankfein-Angelides example, they can be drawn at the level of the immediate dialogue; but they can also be drawn at a generic level to elucidate larger themes across speaker and across time.

Figure 4: *Blankfein: FINANCIAL CRISIS IS A HURRICANE*

| | | |
|---|---|--|
| <i>Hurricane</i> | ⇒ | <i>Financial crisis</i> |
| <i>Bad hurricane season</i> | ⇒ | <i>Systemic financial crisis</i> |
| <i>Premium increase after</i> | ⇒ | <i>Increased regulations</i> |
| <i>Premium increases afterwards were an irrational response</i> | ⇒ | <i>Congress imposing increased regulations now would be an irrational response</i> |

- (1) Look, how would you look at the risk of *four hurricane*?
- (2) The *season after we had four hurricanes* on the East Coast, which was absolutely extraordinary, versus the year before [when] *rates got very low for risk premiums* on the East Coast of the United States.
- (3) That year, after four hurricanes, everyone's nerves were such [that] *rates went up spectacularly*. They're *lower* again.

¹⁰ In *Mental Leaps*, Holyoak and Thagard (1996) called such inferential models "copying-with-substitution" models, and have an interesting discussion of such inferences from the perspective of research into analogy. Particularly important is their point that such inferences are "never guaranteed to be true." Instead, and particularly for matters such as public policy, metaphoric (and analogical) inferences should be seen as pragmatic inferences about what to do next.

- (4) Is *the risk of four hurricanes* any different any of those times?

Figure 5: *Angelides: FINANCIAL CRISIS IS AN EARTHQUAKE*

| | | |
|---|---|--|
| <i>Earthquake</i> | ⇒ | <i>Financial crisis</i> |
| <i>Risk of earthquake</i> | ≠ | <i>Risk of financial crisis</i> |
| <i>'Act of God'</i> | ≠ | <i>Acts of men and women</i> |
| <hr/> | | |
| <i>[You would bear little-to-no responsibility]</i> | ≠ | <i>[You bear clear responsibility]</i> |

- (5) Having sat on the board of the California *Earthquake* Authority
 (6) *acts of God* we'll exempt.
 (7) These were **acts of men and women**.

Even after the new coder was trained, we continued to tabulate the metaphor identifications made in hopes of measuring any shifts in frequency of a particular metaphor used by a speaker from the first hearing to the next. However, the corpus linguistics statistics were confounded by the intensity of the analyses. During subsequent passes through the text, the diagramming and discussion of the text, the initial metaphor identifications were revised, reclassified, discounted and reorganized. Judgments had to be made as to whether to count all instances of multiple specific-level metaphors (e.g. EARTHQUAKES v. HURRICANES) as instances of a more generic metaphor; similar judgments had to be made about the relationship between frequencies of all metaphor identifications versus those judged to have pragmatic value and salience. In the end the possible array of statistics is large, but of questionable value for the primary corpus of the bank CEO's opening statements and of limited value for the secondary corpus of the full hearing transcripts and the tertiary corpus of press accounts.¹¹ For the smaller samples, close reading techniques supplemented with diagramming techniques proved more valuable; calculating the corpus-linguistics statistics were mostly only of interest during the process of training a new coder in metaphor identification.

III. Whose Body? Who Speaks?

Pause a moment and think about your bank's building. Not the suburban drive-through or the in-grocery store branch, but the bank's headquarters or main downtown branch. In all likelihood, that

¹¹ The concordance software package used to search the third tier of our corpora is AntConc (Anthony 2012). However, for the analysis of some copyrighted e-books where permissions to import text into the software are not yet readily forthcoming, manual electronic search methods are being employed.

building is not simply just big but was architecturally designed to give the appearance of solidity, permanence, and strength. This is no accident; bank buildings are intended to be pillars of the community. When then New York Governor George Pataki attended the official opening of the (now-defunct) Bear Stearns investment bank's headquarters in Manhattan, he remarked "Bear Stearns and its impressive new headquarters are fitting symbols of the strength, permanence and grandeur of New York" (Cohan 2011, p. 274).¹² Of course, the façade of the building tells only part of the story. As Goldberger (2010, p. 114) writes of Goldman and Sach's new building in 2010: "the staid structure of Henry Cobb's design isn't a bad analogy for the contemporary investment bank, in which an outward appearance of sobriety conceals the risky activities of autonomous units, busily devising complicated financial products poorly understood by outsiders."

It should perhaps come as no surprise that the most frequent conceptual metaphor we observed in the statements of the bank CEOs was that ECONOMIC INSTITUTIONS ARE BUILDINGS, which nomenclature we shorten to the ECONOMIC BUILDING conceptual metaphor.¹³ The ECONOMIC BUILDING metaphor was the only conceptual metaphor that occurred in all eight bank CEO statements in the primary corpus, and was the most frequently employed overall

¹² Pataki quoted in Cohan (2011, p. 274). Cohan continues by observing that Bear Stearns CEO "Cayne, too, sought to equate the new building with solidity." Though solidity and stability are something banks consistently try to project via their architecture, the time at which such architectural statements are made matters. In contrast to the reports of grandeur and opulence of the Bear Stearns building several years earlier, in the post-financial crisis climate The New Yorker's architecture critic Paul Goldberger writes: "Forty-three stories tall and two city blocks long, the Goldman building appears to have been designed in the hope of rendering the company invisible." He continues that "the staid structure of Henry Cobb's design isn't a bad analogy for the contemporary investment bank, in which an outward appearance of sobriety conceals the risky activities of autonomous units, busily devising complicated financial products poorly understood by outsiders. It's unfortunate that almost all the daring touches at 200 West Street are inside, hidden from view. Then again, perhaps that's the achievement: Goldman managed to pull off what it wasn't able to do in the rest of its business—keep its risk-taking entirely out of sight" (Goldberger, 2010, p. 114).

¹³ The mechanics of shortening conceptual metaphor names are implicit in Mark Turner's analysis of xyz metaphor transformations in his book *Reading Minds*, (1991, p. 201). Particularly relevant is the insight that there is an unstated 'w' in an x is the y of z metaphor, where w is often a domain name like z. For example in 'vanity is the quicksand of reason' there would be an transformation such as vanity:reason is quicksand:w (movement). Similarly, in many cases a conceptual metaphor name stated as TARGET IS SOURCE (z IS w) can be restated as TARGET's SOURCE (z's w), which we contract in this case to ECONOMIC BUILDING. The rules for such pithiness are discussed in detail by Turner throughout his account of classical rhetoric theory's commentaries on metaphor.

as well. Figure 5 illustrates the conceptual metaphors judged most salient for each of the speakers at both hearings (the number in parentheses represents the number of occurrences):

Figure 5: *Bank Executives Conceptual Metaphors in the TARP & FCIC Hearings*

| TARP CONCEPTUAL METAPHORS | FCIC CONCEPTUAL METAPHORS |
|--|---|
| GOLDMAN SACHS CEO BLANKFEIN: ECONOMIC BUILDING (8) MONEY IS LIQUID/BANKING IS IRRIGATION/BANKING IS FARMING (8) BANKING IS THEATER (5) | GOLDMAN SACHS CEO BLANKFEIN: ECONOMIC BUILDING (13) MONEY IS LIQUID/BANKING IS IRRIGATION/BANKING IS FARMING (12) BUSINESS IS A JOURNEY (11) |
| JP MORGAN CEO DIMON: ECONOMIC BUILDING (12) NATION/BUSINESS/ECONOMY IS A PERSON (11) ECONOMIC JOURNEY (5) | JP MORGAN CEO DIMON: ECONOMIC BUILDING (29) NATION/BUSINESS/ECONOMY IS A PERSON (10) ECONOMIC JOURNEY (8) CRISIS IS AN EARTHQUAKE (7) MONEY IS LIQUID/BANKING IS IRRIGATION/BANKING IS FARMING (7) |
| BANK OF AMERICA CEO LEWIS: ECONOMIC BUILDING (12) NATION/BUSINESS/ECONOMY IS A PERSON (11) ECONOMIC HEALTH (8) | BANK OF AMERICA CEO MOYNIHAN: CRISIS IS AN EARTHQUAKE (15) ECONOMIC JOURNEY (11) ECONOMIC BUILDING (8) ECONOMIC HEALTH (7) |
| MORGAN STANLEY CEO MACK NATION/BUSINESS/ECONOMY IS A PERSON (15) MONEY IS LIQUID/BANKING IS IRRIGATION/BANKING IS FARMING (6) ECONOMIC BUILDING (4) ECONOMIC HEALTH (4) ECONOMIC PROBLEMS ARE NATURAL DISASTERS (4) | MORGAN STANLEY CEO MACK ECONOMIC BUILDING (28) NATION/BUSINESS/ECONOMY IS A PERSON (13) ECONOMIC JOURNEY (12) ECONOMIC PROBLEMS ARE NATURAL DISASTERS (12) KNOWING IS SEEING (11) MONEY IS LIQUID/BANKING IS IRRIGATION/BANKING IS FARMING (8) |

On its own, the ECONOMIC BUILDING metaphor is highly conventional and oftentimes the speakers' usage of it was not particularly cognitive or pragmatic. This reflects its conventional usage to reinforce the typical imagery of as a bank as a strong, secure and stable shelter for its customer's funds. The exception, as previously discussed, is the notion of the TARP program having provided temporary shelter during the crisis. The ordinary usage of promoting an image of stability was at odds with the unstable situation of financial crisis during which the CEOs had been summoned before Congress to testify, and each CEO had to negotiate that irony in their face-work before the committee. As we have argued, the BUILDING metaphor coheres with the ECONOMIC

PROBLEMS ARE NATURAL DISASTERS metaphor in that it justifies a government rescue. The stability of the banks has been damaged, and the TARP funds will provide temporary shelter until the crisis has passed.

One set of questions that arises from the use of these interlocking metaphor systems is “Shelter for whom? Who is the person whose body is being sheltered from harm here?” The answer is multivalent, and it depends largely on which speaker is using the metaphor to which pragmatic end. In the simplest cases of the metaphor, the banks are being given shelter by the government; however, the bank CEOs go to lengths to align their banks’ interests with that of the economy and the nation as a whole. Thus we have grouped another related set of metaphoric expressions under what we have termed the NATION/BUSINESS/ECONOMY IS A PERSON conceptual metaphor, because the referent of that metaphor is deliberately blended in the rhetoric of the speakers in our primary corpus.

A particularly intriguing example of this referential multivalence is in the opening statement from Morgan Stanley CEO Mack at the TARP hearing. Mack’s pragmatic strategy is to begin by using the term “we” and “our” in the relatively uncontroversial metaphor sense of personifying the bank itself, but late in the article his use of the pronouns shift to what is called the “Royal We” construction, in which the speaker expands the scope of the “person” to include other speakers present and, eventually, the entire nation. Mack uses the third person plural pronouns “we” and “our” in four overlapping but distinct senses. Using the corpus-based methods,¹⁴ we counted 48 instances of those lexemes, and most of those (35/48) were in reference to Morgan Stanley, while in a smaller number of cases he used those pronouns to refer to the banking industry, to the economy, or the nation as a whole; however 34 of the first 37 instances referred to Morgan Stanley rather than the industry or economy generally. The NATION AS PERSON metaphor does not emerge until last fifth of Mack’s opening statement. Beginning with example (12) below, Mack introduces the “Royal We” construction in an attempt to co-align not

¹⁴ Our totals for the number of personification metaphors (15) and lexemal uses (48) of the “we” and “our” terms result vary for two reasons. First, some uses of these terms were not judged to be clearly metaphoric; and second, in a phrasal (as opposed to lexical approach) to conceptual metaphor analysis, an instance such as example (1) would be regarded as a single instance, since the “we” and the “our” in this example clearly designate the same referent. In fact, in our approach to metaphor analysis, a multi-sentence passage would often be counted as a single example if there were no substantive shifts in the metaphor’s referent, its logic or in the speaker (e.g. from “we” to “I”).

only the nation's but also the politicians' interests in enacting regulatory reforms with his bank's interests. Consider:

- (8) **At Morgan Stanley we've** dramatically brought down leverage, increased transparency, **reduced our level of risk** and made changes to how people are paid. [speaking for his bank]
- (9) The events of the past month have **shaken the foundation of our global financial system...** [speaking for the economy]
- (10) **We have** much work to do **in our industry** and across the markets. Real problems remain that are preventing economic recovery. **We need** to find ways to increase lending and restore consumer and market confidence.... [speaking for banking industry]
- (11) I believe that both **our firm, our industry**, have far to go to regain the trust of taxpayers, investors and public officials [co-aligning his bank with the banking industry; uses both personal pronoun and appositive noun construction]
- (12) Perhaps most importantly **we need to enact reforms** to the most fundamental issues laid bare by the recent turmoil. First, **we need to fundamentally improve** systemic regulation. **Our fragmented regulatory structure** simply hasn't kept pace with the increasingly complex and global market. I agree, Mr. Chairman, with your proposal to create a systemic risk regulator. [speaking for the nation; co-aligning his bank's interests with the politicians and the greater national good]

In his prepared testimony, Mack uses the flexibility of the English first person plural voice in an attempt to convince the politicians that the bankers, politicians and wider community are in this together, and must figure a way out of it together. He begins with clear, deceptively humble markers such as "we at Morgan Stanley" and ends with an increasingly "Royal We" that moves to the all-encompassing "we, all of us." As Mary Jean Vignone (2011) noted in her dissertation, "Nowhere in this discourse, of course, is the voice of 'We the people.'" Taxpayers, small depositors and small investors are left out of Mack's face-work.¹⁵

Throughout this article we have been arguing that the embodied standpoint of the speaker matters. For all the utility that we find in the corpus linguistics tools and methods—and we do find value therein—it is crucial to emphasize the speaker's perspective and shifts of perspectives between speakers in order to understand the logic of how conceptual metaphors cohere, are used in conjunction, and are used to reason pragmatically—or influence the pragmatic reasoning

¹⁵ See also Vignone's (2011) analysis of Economic Health metaphors and how Bank of America CEO Lewis seeks to position himself as the nation's physician, capable of curing the economic malaise and hastening its recovery. This facework is similar to how Mack positions himself; both CEOs are positioning themselves and their banks as providing a service to the nation.

of others—about the topic of the discourse. Émile Benveniste (1971, 208-209) put it thus:

Discourse must be understood in its widest sense: every utterance assuming a speaker and a hearer, and in the speaker, the intention of influencing the other in some way. It is primarily every variety of oral discourse of every nature and every level, from trivial conversation to the most elaborate oration. But it is also the mass of writing that reproduces oral discourse or that borrows its manner of expression and its purposes: correspondence, memoirs, plays, didactic works, in short, **all the genres in which someone addresses himself to someone, proclaims himself as the speaker, and organizes what he says in the category of person.**¹⁶

The Goffman-esque total institution of a Congressional hearing is one of those genres rife with personification, particularly in the case where individual bank CEOs have been summoned to Washington to testify concerning the threat that the 2008 financial crisis posed for not just their individual banks but for the U.S. banking industry as whole, the national and global economic system, and the entire nation. Benveniste is correct to point out that we must account for the pragmatic interests of each speaker as we do an analysis of the discourse; if we were simply to lump together all instances of the NATURAL DISASTER metaphor, as we might be tempted to in a purely statistically-based corpus approach, we would miss essential components of the underlying policy debate, and the crucial importance of the differing metaphors to structuring a possible set of regulatory remedies.

IV. Are the Big Investment Banks Vampire Squid?

In a journal-length article we can only begin to do justice to the full range of evidence we have found in the primary corpus (Vignone 2011), let alone our still ongoing research into the tertiary corpus. However, we would note that the tertiary corpus contains rich examples of conceptual metaphor that are ‘watershed’ moments similar to the Blankfein-Angelides exchange. (We call such examples ‘watershed’ moments because of their prowess in changing the discourse and shaping reasoning subsequent to their utterance.) Moreover, many of these examples would likely not be found using a strictly adhered to corpus linguistics methodology using a keyword list derived solely from the primary corpus. Consider, for example, the oft-cited opening sentences of Matt Taibbi’s (2009) article for

¹⁶ One source of inspiration for our research into the referential multivalence of personal pronouns and its ties to Benveniste’s work stems from Line Brandt’s dissertation (Brandt 2010) on the semiotics of blending and from much earlier work by Line Fogsgaard on the semiotics of pronominal reference (Fogsgaard 1998).

Rolling Stone on the contribution of Goldman Sachs to the financial crisis:

- (13) The first thing you need to know about Goldman Sachs is that it's everywhere. The world's most powerful investment bank is a great vampire squid wrapped around the face of humanity, relentlessly jamming its blood funnel into anything that smells like money.

In neither our primary, secondary, or tertiary journalistic corpus nor, for that matter, in our ordinary experience of financial reporting, do we have any other examples of a BANKS ARE VAMPIRE SQUID metaphor that predate it; but after its utterance we find related examples to be quite common in the tertiary corpus.¹⁷

The Taibbi VAMPIRE SQUID metaphor is remarkable for multiple reasons. First, and similarly to the Blankfein-Angelides exchange, it was among those instances of metaphor that was debated expressly as a metaphor. Second, it sparked an immediate and vociferous debate in the financial and journalistic communities as to whether the Taibbi's use of metaphor was fair, appropriate, and even meaningful at all. This last point is particularly important for conceptual metaphor theory, as illustrates how deeply engrained in our culture is the mistaken philosophical view that metaphors cannot be meaningful because they are the antithesis of literal truth.

One facet of that debate was reflected in Goldman Sachs' executives' responses when questioned about Taibbi's choice of metaphor. Most either were befuddled, or at least feigned befuddlement, when asked to comment upon the metaphor, many initially expressing astonishment that a creature called a 'vampire squid' even existed. After it became clear that the vampire squid comparison would not go away, their responses tended to focus on the odd biological facts about vampire squid, such as when Goldman Sachs' official spokesperson Luther Van Praag (Pressler 2010) observed in an interview that the metaphor was nonsensical because in fact vampire squid are quite small—less than six inches long—and they live in the depths of the ocean and pose no threat to humans. Goldman Sachs CEO Blankfein made similar observations: "These creatures, which grow to only six inches, are 'small and harmless rather than carnivorous,' says an exasperated Mr. Blankfein" (Economist 2009a, 2009b).

¹⁷ This watershed moment was limited to the tertiary corpus given how we defined them at the outset of this project; that is, we did not observe any vampire squid metaphor or metaphoric reasoning in the narrowly defined corpora we derived from the bankers and the politicians involved in the TARP and FCIC hearings. However, Roose (2011) cites its subsequent use by politicians and Block (1997) documents the earlier uses of vampire metaphors by politicians. See footnotes 18 and 22 this document.

Another interesting example of this debate comes from Twitter exchanges between financial journalists Felix Salmon and Heidi Moore that Salmon (2009) recorded for posterity on his Reuters blog. (The exchange also makes reference to a second flamboyant metaphor Taibbi (2009) used later in his article: “During the 1970s and 1980s, Goldman may not have been the planet-eating Death Star of political influence it is today...”) Moore began the argument by twittering “For the record, I don’t think any article that contains the line ‘vampire squid sucking the face of humanity’ is real journalism. [...] Journalism is the art of accurate representation.” When Felix Salmon contends that “Taibbi’s piece, to me, was clearly polemical journalism—and good polemical journalism at that,” Moore wrote “Would RS piece have appeared in any reputable financial publication? No. I’m sure Taibbi would say that’s bc financial press all bought and paid for, too close to that world. But mostly it’s not in reputable financial press bc it couldn’t be supported. Sometimes it’s just not true.” To which Felix Salmon sarcastically replied: “You mean Goldman doesn’t *literally* eat planets?”

Salmon’s sarcasm stems from the fact that a focus on the literal qualities of the source domain for a metaphor is a standard technique to deflect criticism by maintaining that a metaphor’s pragmatic intent is unclear. In fact, a well-known risk of employing a metaphor (or analogy) is that it invites debate over minutiae germane to the source domain to the extent that the metaphoric inferences concerning the target domain—i.e. the point of making the metaphor—can be entirely hidden from view. Editors and writers are well aware of this possibility. In an interview a few months after the article appeared, Taibbi revealed (Nicks 2010) that the vampire squid metaphor nearly did not make it into print: “The other thing I remember is the fact checkers coming to me at one point and they almost killed the line because squids don’t have blood funnels.” From the rarified perspective in which only true statements can count as meaningful statements, the fact that vampire squid do not literally have blood funnels is just as important as the fact that the planet-eating Death Star is only real in a work of fiction or as in Lucas Van Praag’s comment that vampire squid are only six inches small while investment banks are much bigger. According to this view of metaphor and truth, such difficulties with source domain illustrate why metaphor can never be an accurate representation of reality, cannot possibly offer any meaningful insight into investment banking, or ever be present in ‘real journalism.’ And Salmon, with his asterisked, sarcastic emphasis on the term ‘literally’ in his response points out that Moore is deliberately ignoring crucial information about the ways in which metaphors do articulate meaning, and why

they are appropriate in journalistic writing. The Moore-Salmon exchange is a microcosmic version of the academic debate between analytic philosophy and conceptual metaphor theory regarding the relationship between metaphor and truth.

As Taibbi revisits and re-presents the article again as the final chapter of his book *Griftopia* (2010), he reflects on the debate over his metaphor and argues that the negative reaction of financial press was entirely disingenuous:

The only people who really clung to those illusions [about Goldman Sachs] were the financial commentators, right up to the point where those illusions became completely unsustainable. Within six months after this article came out, it was de rigueur even for wire services to reference Goldman's 'vampire squid' reputation. (Taibbi 2010, p. 454)

In other words, while some in the respectable financial press pretended the metaphor was not literally true and therefore just an inappropriate inflammatory populist distortion, its editors and the press in general simultaneously adopted the VAMPIRE SQUID metaphor to refer to investment banks in general, and not just Goldman. Based on the evidence in the tertiary corpus, Taibbi's claim is largely correct. The metaphor Taibbi used to frame his article marked a watershed moment in the terminology used in reporting the financial crisis. Neither Goldman's spokesperson or CEO raising minor points of disanalogy between banks and vampire squids, nor expert financial journalists claiming this metaphor was incoherent or inappropriate, hindered the metaphor's success in shaping the subsequent journalistic discourse about the role investment banks played in the financial crisis.

Despite its success as another watershed moment in reshaping the discourse about the role of the big banks in the financial crisis, the VAMPIRE SQUID metaphor does appear to differ somewhat from the other metaphors used by the bank CEOs and the politicians analyzed in the previous sections of this article. Note that even once assimilated by the press, Taibbi's metaphor does speak from a populist voice of outrage,¹⁸ as opposed to (at most) the measured anger that is more subtly expressed by a politician such as Angelides as he uses an earthquake version of the NATURAL DISASTER to rebut Goldman

¹⁸ For example, in late 2011 The New York Times ran a photo of the populist "Occupy Wall Street" protestors marching with papier-mâché replicas of vampire squids. In an article accompanying the photo, Kevin Roose discusses the longevity of the vampire metaphor, writing "The 'vampire squid' metaphor immediately struck a nerve in a way few bons mots in financial journalism do. Before it was co-opted for protest art this week, the metaphor was already being cited by members of Congress, roasted by private equity titans and scrutinized for signs of anti-Semitism" (Roose 2011).

Sachs CEO Blankfein's defense of his banks' actions by using the hurricane version of that metaphor to imply that no one was responsible for the financial crisis. However, attending to such shifts in the speaker is consistent with our theoretical argument to this point. What appears to be more radically different about this metaphor than the other examples we have addressed thus far is that it seems more open-ended, more imaginative, less-focused and a less fully developed example of metaphoric reasoning. Taibbi's article contains no further references to vampires, blood or tentacles; this metaphor is not extended, and seems to induce mental imagery rather than reasoning by analogy. But if a metaphor such as the vampire squid is an example of a wildly original, creative and unique metaphor, how can it be so readily comprehensible? And why did it become so prevalent in the media?

The VAMPIRE SQUID metaphor is comprehensible and successful for several reasons. First, the linguistic expression itself is not an isolated, unique example of creativity, but rather the end-product—a conceptual blend¹⁹—of a system of interrelated metaphors. For example, comparing bankers to *vampire squid* might be unique, but the idea of comparing bankers to *vampires* is relatively less surprising given that a common point of coherence between of the MONEY IS A LIQUID, ECONOMIC HEALTH and NATION/ECONOMY/BANK IS A PERSON metaphors lies in understanding money as a particular kind of liquid—blood—as in the “lifeblood” of a nation or economic institution. Consider this 16th-century passage from the Florentine writer Davanzati (1588/ 1696), in which he explicates the relationships between these metaphors:

- (14) Some grave and famous Authors have call'd Money the Sinews of War and Government; but, in my Opinion, it may be more properly stil'd the *Second Blood thereof, for as Blood, which is the Juice and Substance of Meat in the natural Body, does, by circulating out of the greater into the lesser Vessels, moisten all the Flesh, which drinks it up as parch'd Ground soaks Rain Water; so it nourishes and restores as much of it as was dri'd up and evaporated by the natural Heat: In like manner, Money, which we said before was the best Juice and Substance of the Earth, does, by circulating out of the richer Purses into the poorer, furnish all the Nation, being laid out upon those things whereof there is a continual Consumption for the Necessities of Life. From the poorer it returns again into the richer Purses; and thus circulating without Intermission, it preserves alive the Civil Body of the Common-*

¹⁹ Conceptual integration (blending) theory (Fauconnier & Turner 1995, 2002) is a theory of meaning related to, but not coterminous with, conceptual metaphor theory in cognitive linguistics. Among its differences is that it is a four-space model that supplants the notion of the two conceptual domains in conceptual metaphor theory with a broader notion of mental spaces (Fauconnier 1985). Mental spaces are flexible theoretical constructs that can contain multiple conceptual metaphors and conceptual frames.

wealth. Hence it may be easily conceiv'd that every State must have a quantity of Money, as every Body a quantity of Blood to circulate therein. But as the Blood stopping in the Head or the larger Vessels puts the Body naturally into a Consumption, Dropsy, or Apoplexy, etc. so should all the Money be only in a few Hands, as in those of the rich for Example, the State falls unavoidably into Convulsions, and other dangerous Distempers.

Davanzati's passage neatly ties together liquidity, blood, personification and economic health metaphors. Note that money is conceptualized as two types of liquids: first as blood and also as rainwater. In both cases of the metaphor he uses it to emphasize the consequences to the health of the nation.

Today the inferences about Consumption, Dropsy, and Apoplexy sound quaint, but the underlying metaphor systems of the 21st century are largely the same. What has changed is the accepted source domain terminology of the ECONOMIC HEALTH metaphor, as when Bernanke describes the diseases afflicting the economy as a "heart attack." Consider the logic found in the following set of examples from the tertiary corpus:

- (15) On Thursday, September 18, Fed chairman Ben Bernanke, Treasury secretary Hank Paulson, and a select group of about sixteen top legislators, including New York senator Chuck Schumer, Arizona senator Harry Reid, and Connecticut senator Chris Dodd, gathered around a polished conference table in the offices of House Speaker Nancy Pelosi. Bernanke began to talk. The credit markets had frozen, he explained, *likening the financial system to the arteries of a patient whose blood had stopped flowing. "That patient has had a heart attack and may die,"* Bernanke said in a somber tone to the dead-quiet room. (Patterson 2010, p. 561).²⁰
- (16) **Money is the lifeblood of the economy, and unless it circulates readily, the essential economic activities go into the equivalent of cardiac arrest.** Finance serves a public utility function, and the question government regulators must wrestle with is to what degree private financiers should be allowed to seek a profit and to what degree they must be required to ensure **that money flows safely** (Tett 2009, p. 26).
- (17) Spooked by the write-downs, Wall Street began to pull the plug on the subprime machine, withdrawing *the warehouse loans that had been its lifeblood* (McLean & Nocera 2010 p. 100).
- (18) The trading side of the firm—for which *"substantial permanent capital" was its lifeblood*—eventually overwhelmed the investment banking side, in terms of profits, stature, and ethos (McLean & Nocera, 2010 p. 175).
- (19) To boost the yield and produce respectable returns, they took advantage of the cheap, short-term money available in the repo market. *"The borrowing was the absolute lifeblood of the funds,"* Tannin's lawyer later said (McLean & Nocera 2010 p. 313).
- (20) He and other Treasury officials had come to recognize that Wall Street's broker-dealer model—in which **banks could count on ever-dependable**

²⁰ In the references, Patterson sources this metaphor to an interview conducted with Senator Chuck Schumer (p. 685).

overnight financing by other investors—was by definition a tinderbox. Bear had taught them how quickly a bank could crumble; *in an industry whose lifeblood was simply the confidence of other investors*, it could wane quickly at the hint of a problem²¹ (Sorkin 2009, p. 142).

Given the prevalence of the MONEY IS BLOOD case of the MONEY IS LIQUID metaphor, it should come as no surprise that our research has uncovered a small number of examples in which banks (or bankers) have been conceptualized as vampires that predate the Taibbi example.²² For example, a search for the terms “vampire” and “bank” on the internet archives (archive.org) did reveal a 2005 video entitled “World Bank Bloodsuckers” in which “Members of the Boston Direct Action Project dressed as vampires and pose as PR officials for the World Bank. They hit the streets of DC during the 2005 mobilization against the World Bank and International Monetary Fund annual meetings” (Boston Direct Action Project 2005).

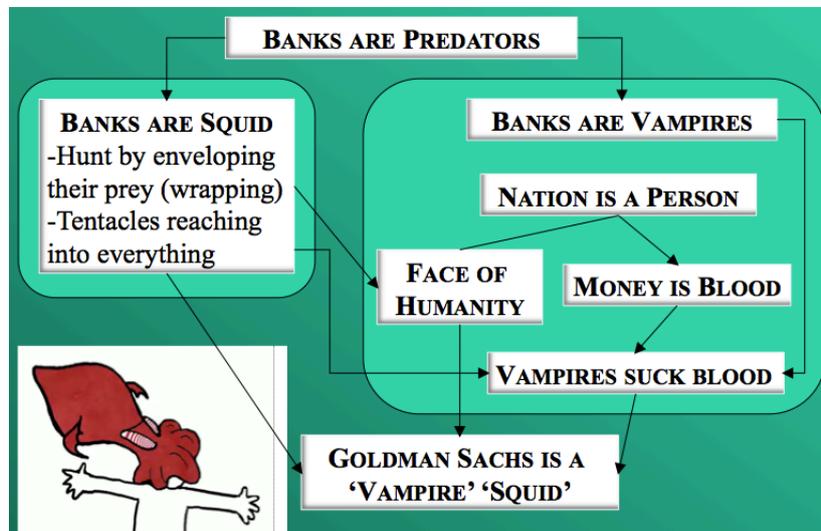
The term *vampire squid* can thus also profitably be understood as a compound noun, and hence the blend of two metaphors—that BANKS ARE VAMPIRES and BANKS ARE SQUID. All of these metaphors are themselves each cases of a generic-level, or superordinate, conceptual metaphor—BANKS ARE PREDATORS—which in turn imparts crucial generic structure to the blend. In short, these metaphors focus attention on the predatory role the banks played in the 2008 financial crisis. On the left side of figure 6 we have given a few central entailments of conceptualizing the large

²¹ While Sorkin’s apparent metaphoric equation here is between lifeblood and the confidence of other investors, note that the preceding sentence makes clear that lifeblood is the confidence of other investors to continue to make overnight financing available—in other words, the confidence to keep the flow of the money (i.e. blood) alive.

²² Research conducted using corpus-based, database and internet search engine methods revealed no metaphors linking vampire squid and banks (or bankers) that predate the Taibbi article; however, there were a handful of examples of conceptualizing banks, bankers or economic activity generally in the language of vampires. While we have given the example most similar to the (left-wing populist) Taibbi usage in the text, it is worth noting that many of the earliest examples were populist voices from the anti-government right wing that conceptualized governmental regulation (or government-owned banks) as the vampire. For example, a letter to the editor in the Bloomington, IL Pantagraph characterizes the Federal Reserve Bank as a “vampire at the throat of our country” (Younkins 1993). The right wing’s use of the vampire, blood, and economic health metaphors is further discussed in the sociologist Block’s book *The Vampire State* (Block 1997). In a review of Block’s book John Judis (1996) writes: “The dominant metaphor casts capital as blood and the government, or state, as a vampire sucking this precious fluid out of the economy. If you listen, it’s everywhere—[former Republican U.S. Senate candidate] Steve Forbes promising to ‘drive a stake into the heart of the Internal Revenue Service,’ Arizona Senator Jon Kyl comparing current budget policy to ‘bleeding a patient with leeches in order to make the patient healthy.’”

investment banks as squid, such as that their flawed financial instruments are the tentacles that reach into all kinds of human endeavors. On the right side of the figure, in the banks are vampires space, we depict how the vampire metaphor coheres with the MONEY IS BLOOD case of the liquidity metaphor and the ECONOMIC HEALTH and NATION IS A PERSON metaphors. In the blend, all of these metaphors come together to yield the entailment that Goldman Sachs is a predatory vampire squid, “wrapped about the face of humanity, relentlessly jamming its blood funnel into anything that smells like money.” In the lower left corner is a visual depiction of this conceptual blend (Babbs 2010); note that the visual form of the blend exploits topological similarities common to the source domains of the two metaphors, as in how the mass of the tentacles of the squid evoke the cape of a vampire; note further that the tentacles-cape is wrapped around the face of a human being. In a highly imaginative conceptual blend such as this, the coherences between multiple metaphor systems foster both reasoning and imagery about the source domain that were previously not—or at least less—salient.

Figure 6: *The ‘Vampire’ ‘Squid’ as a Conceptual Blend of Multiple Metaphors*



Highly original metaphoric expressions and conceptual blends such as these pose serious challenges to the premise that a corpus linguistics-governed approach to cognitive linguistics would facilitate

identifying all the examples of metaphor, let alone explain the full richness of the metaphoric logic in a given discourse. We have other rich examples of original metaphors in the tertiary corpus that a keyword analysis derived from the primary corpus that corpus-linguistics methods alone would not find in the tertiary corpus; moreover, we can explain the intelligibility of those examples using existing conceptual metaphors. In this analysis we hope to have convinced the reader that while corpus linguistics methods have some—even substantial—utility in supplementing a conceptual metaphor analysis, they are not suitable for testing some of conceptual metaphor theory's most provocative claims about the nature of human meaning and persuasion.

We do, however, agree with Steen's (2002) contention that the corpus linguistics results show that the 1% of conceptual metaphors that are deliberative are indeed where the action is. Whether by attending to the speaker dynamics in a dialogic exchange (e.g. Blankfein-Angelides), or by attending to how a highly original use of metaphor can serve as watershed moment in the discourse on a particular topic, deliberative metaphors involve metaphoric reasoning. Ultimately there is no substitute for methodologically careful, engaged, and thorough-going qualitative analysis using cognitive linguistics' mapping and diagramming techniques which specify the standpoint and pragmatic objectives of the different speakers. Only from the specifics can sound generic cross-mappings emerge.

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