

# Investigating Metaphor and Metonymy in Oral Financial Discourse: A Corpus-driven Study

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## *Abstract*

This paper explores the usage of metaphor and metonymy in a key oral business genre: earnings conference calls. These figurative features were analysed in a corpus consisting of the transcripts of twenty earnings conference calls of large multinationals, using a semantic annotation tool that automatically identifies each lexical item according to predetermined conceptual domains. Further qualitative analysis of the output revealed many of the same root metaphors and metonymies typical of written financial discourse, but with some distinctive usage that seemed to perform a cohesive function within this particular discourse community. The study also shows how a corpus-driven approach is useful to identify a wide range of figurative expressions in naturally-occurring oral financial discourse, which has been understudied from this perspective.

*Keywords:* corpus linguistics, financial discourse, metaphor, metonymy, semantic annotation.

## **1. Introduction**

The figurative dimension of economic discourse has long been recognised. Over thirty years ago, the renowned economist Donald McCloskey argued that metaphor has the capacity to create new meanings in the field of economics through innovative combinations that draw from different conceptual domains (McCloskey 1995). For example, following Lakoff and Johnson's (1980; 2003) Conceptual Metaphor Theory (CMT), in the expression *human capital*, we interpret the target domain (*human*) according to the attributes of the source domain (*capital*), which reinforces the notion that human skills and talents are assets for companies in the same way as physical capital. Similarly, *economic life cycle* relies on the attributes of living

organisms (the source domain) to construe the economy (the target domain) as a dynamic phenomenon rather than a static entity.

Over the years, considerable linguistic research has been dedicated to figurative language in written business and economic discourse, although most of this work has focused on metaphor. In fact, several conceptual metaphors have been shown to permeate written business genres, including the financial press, scientific and popular periodicals, and business English textbooks. Henderson referred to “root” metaphors that provide a “sustained basis for the organization of the discussion of a topic and for the selection of terms that are used to discuss the topic” (1994: 336). Among the most prominent is the metaphor that likens economic phenomena and entities to *living organisms* that grow, flourish, or suffer, for example, *a healthy business*, *investments that mature*, and *a paralysed market* (Charteris-Black and Ennis 2001). The *mechanical* metaphor is also common. In this case, economic phenomena are seen as machines or vehicles that *start-up*, *accelerate*, and *slow down* (Henderson 1994). Other frequent metaphors involve the source domains of *sports*, encoded in *player*, *winner*, *race*, and *record-breaker*, and *nautical* entities, where businesses are likened to *ships* that are *launched*, *anchored* or *stay afloat* (cf. Skorczynska Sznajder 2010).

Less attention has been paid to metonymy by scholars of economic discourse. Metonymy is characterised by Lakoff and Johnson (1980: 36) as performing a referential function, which “allows us to use one entity to stand for another”<sup>1</sup>. Interestingly, among the metonymical expressions cited by these scholars is a well-known example that happens to involve the domain of finance, namely “Wall Street is in a panic”, or PLACE FOR INSTITUTION (Lakoff and Johnson 1980: 38). With specific reference to the discourse of economics and finance, White (1997) suggests that metonymy allows complex economic ideas to be expressed in a practical and concise way, e.g. the market (PLACE FOR PEOPLE), where one conceptual entity (PLACE) allows mental access to another (PEOPLE, specifically

<sup>1</sup> While recognising the complex theoretical issues involved in defining and interpreting metonymy (cf. Radden and Kövecses 1999; Barcelona 2011), for the purposes of this study, I adopt Lakoff and Johnson’s (1980) “stand for” approach.

the very diverse group of people operating within that place), both within the same “idealised cognitive model” (Radden and Kövecses 1999: 17).

The studies mentioned above have focused exclusively on written genres, while research on figurative language in spoken financial discourse is currently lacking. To address this imbalance, this paper examines the use of metaphor and metonymy in earnings conference calls as an important oral genre used for the purpose of financial disclosure, i.e. the periodic release of information about a company’s economic results. Earnings conference calls have become a common event for corporate financial disclosure (Crawford Camiciottoli 2013).

On a discursive level, earnings conference calls are structured into two parts: a monologic oral presentation delivered by teams of company executives to professional financial analysts who are connected via telephone, and a dialogic question-and-answer session during which the analysts engage directly with the executives. The participants of earnings conference calls have very distinct professional objectives. The executives strive to portray their company as financially sound to encourage investors, while also protecting the interests of shareholders. The financial analysts aim to glean maximum information from the executives to write accurate reports for the investment community. Thus, earnings conference calls can be seen as high-stakes professional interaction where participants are involved in a delicate balancing act.

Previous research has underscored the highly professional, yet largely informal and interpersonal, tone of earnings conference calls, as well as distinctive linguistic, discursive, and pragmatic features (cf. Crawford Camiciottoli 2013). Thus, earnings conference calls would appear to offer a particularly interesting backdrop for the study of figurative features of oral financial discourse. The following research questions underpin the analysis:

- a) Do the metaphors and metonymies found in written business and economics discourse also characterise earnings conference calls?
- b) How do metaphors and metonymies reflect the specificities of the professional discourse of earnings conference calls?

## 2. Methodology

The analysis was based on a corpus containing the transcripts of the earnings conference calls of twenty globally recognised multinationals based in the United States (197,675 words). The transcripts were collected from *Seeking Alpha*<sup>2</sup>, an Internet platform that provides information for the international financial community, including some transcripts of earnings conference calls that can be freely accessed. The transcripts that were available refer to earnings conference calls that took place between 2007 and 2009. The companies represent a variety of different business sectors, including both manufacturing and services<sup>3</sup>. The corpus was processed with the semantic field annotation tool of the text analysis software *Wmatrix* (Rayson 2008). This tool automatically assigns each lexical item in a corpus to one of over 200 pre-determined conceptual domains grouped under twenty-one major semantic fields such as *Life and living things*, *Money and commerce*, and *Substances, materials, object and equipment*<sup>4</sup>. The value of utilising semantic annotation software to investigate figurative language was highlighted in a study by Hardie et al. (2007). Drawing inspiration from CMT (Lakoff and Johnson 1980), these authors were able to extract multiple metaphors based on various source domains (e.g., WAR, MACHINERY, LIVING ORGANISMS) from two different corpora. This method offered the possibility to perform a considerably more comprehensive analysis by identifying figurative expressions in an open-ended way beyond pre-determined query sets.

The results of the semantic annotation were then displayed in a key domain cloud (Figure 1) that illustrates all the domains that occur with statistically higher frequencies in the Earnings Conference Calls Corpus when compared to a larger reference corpus incorporated into *Wmatrix*<sup>5</sup>.

<sup>2</sup> <http://seekingalpha.com/>

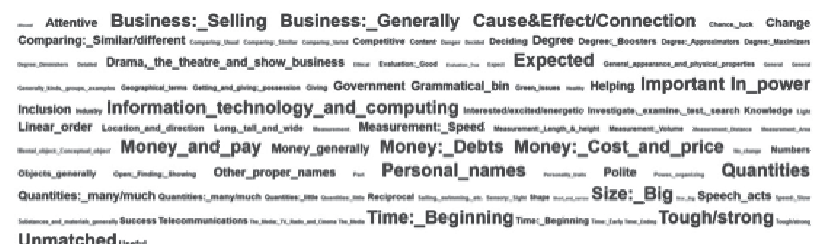
<sup>3</sup> Names of companies, brands, and products have been removed for reasons of privacy.

<sup>4</sup> According to its developers, the semantic annotation tool has a 92% accuracy rate.

<sup>5</sup> I selected the AMEo6 (American English 2006 – 966,609 words from published general written American English) as the most suitable for comparison with my corpus.

FIGURE 1

Key domain cloud for the Earnings Conference Calls Corpus



Each domain consists of a hypertext link that can then be opened to reveal both lists and concordances of all the lexical items that were automatically assigned to it by the software. The different font sizes in the cloud reflect the graduated differences in ‘keyness’ scores based on the log likelihood statistical measure, ranging from higher (larger fonts) to lower (smaller fonts) scores. Although all of the domains occur with significantly higher frequencies with respect to the reference corpus, those in larger fonts have the highest keyness scores, and are thus particularly distinctive for this corpus.

I then manually examined the contents of each domain to identify instances of metaphor and metonymy. For this procedure, I relied on my competence as a native speaker of English and experience as a financial discourse analyst (cf. Crawford Camiciottoli 2009; 2010; 2013) to distinguish figurative from literal meanings. In addition, I referred to the lists of metaphors and metonymies identified in previous studies on written business-related discourse (cf. White 1997; Charteris-Black and Ennis 2001; Skorczynska Sznajder 2010), in order to determine the presence of similar items, while also exploring possible new uses of figurative speech that may characterise earnings conference calls.

### 3. Results and discussion

As expected, the domains with the highest keyness scores (in the largest font) were related to business activities, money, quantities, and time, reflecting the core nature of this genre. Other particularly

prominent domains were *Information\_technology\_and\_computing* (the business sector of several companies), *Personal\_names* (speaker introductions), *In\_power* (leadership titles of speakers), *Cause&Effect/Connection* (economic results), and *Important* and *Tough/strong* (evaluation of those results). Follow-up inspection of the items contained within all of these revealed no instances of metaphor or metonymy, but only literal meanings of the corresponding items. Given the factual and numbers-oriented nature of earnings calls as a financial reporting genre, this was not unexpected.

In contrast, the follow-up qualitative analysis of all the other key semantic domains illustrated in Figure 1 (as described above) revealed numerous instances of both metaphor and metonymy, which I discuss in detail in the following subsections.

### 3.1. Metaphor

The close inspection of several domains revealed a strong presence of core metaphors associated with written economic discourse (cf. Charteris-Black and Ennis 2001; Skorczynska Sznajder 2010). Two domains included various items that conceptualised economic phenomena in terms of MACHINES or VEHICLES: 1) *Change* that contained *go/going/move forward* and *momentum*, and 2) *Speed\_slow* that contained *slow/slowing down*, *slowdown*, *deceleration*, *lagged/lagging*, and *sluggish*, as shown in examples 1 and 2, respectively. In example 1, the vehicle metaphor is actually reinforced by the accompanying item *accelerate* which was also present, although evidently not in sufficient quantities to generate the parallel key semantic domain of *Speed\_fast*.

- 1) Is that growth steady or should it accelerate *going forward*? (C12/Beverages/Analyst)
- 2) With the industry *slowing down* [...] what's the level of promotions that you're seeing? (C7/Financial services/Analyst)

Metaphorical meanings of the items *environment* and *ecosystem* were found in the domain *Green issues* (example 3), while the domain *Healthy* contained various items, including *healthy*, *recovery/recover*, *refreshed*, and *reinvigorate* (example 4). Both of these domains

constitute metaphorical meanings that project business phenomena as LIVING ENTITIES. Example 4 shows how different metaphors were also combined within the same utterance, i.e., the machine/vehicle metaphor *momentum* together with the living organism metaphor *health*.

3) A short sales-only window would be a benefit to the health of the whole DVD *ecosystem*. (C8/Electronic commerce/Executive)

4) We took advantage of our momentum to reinvest in the long-term *health* of our brands. (C6/Food processing/Executive)

The domain *Objects\_generally* contained instances of the items based on the lemma *hurdle* that encoded the sports metaphor, i.e., BUSINESS IS A GAME, as shown in example 5.

5) We generally seek returns that meet and/or exceed our financial hurdles. (C20/Apparel stores/Executive)

The domain *Sailing\_swimming\_etc.* comprised numerous items, including *launch*, *ship*, *sails*, *flagship*, *fleet*, and *helm*, as illustrated in example 6, reflecting the nautical metaphor, i.e., BUSINESS IS A SHIP.

6) Where do you guys see the PC market [...] with <brand name> *launching* in Q1 07? (C19/Semi-conductors/Analyst)

An interesting borderline case was *Drama\_the theatre\_show business*, which contained items such as *perform\**, *scene*, *scenario*, *stage*, and *drama\** that could be interpreted metaphorically. Although items like *perform\** and *stage* are also commonly used without theatrical reference, their etymological origin is clearly connected to such a context.<sup>6</sup> However, such items could also be considered “dead metaphors” (cf. Searle 1993: 110), and perhaps this is the reason why previous linguistic analyses of business discourse have not discussed them as metaphorical. Yet, the so-called THEATRE metaphor has been a topic of considerable interest in management studies (cf.

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<sup>6</sup> For example, the meaning of the noun *performance* as “accomplishment” derives from the “action of performing a play” from the 1610s and from “a public entertainment” from 1709. The meaning of the verb *stage* derives from “put (a play) on the stage”, first recorded in 1879 (Harper 2001).

Cornelissen 2004; Koskinen and Pihlanto 2008; Biehl-Missal 2011), suggesting its salience within this discourse community. The relatively high keyness score of this domain containing numerous lexical items that derive from theatrical meanings indicates their prominent role in the speech of the participants, regardless of their status as ‘live’ or ‘dead’ metaphors, as illustrated in examples 7-9.

- 7) Bars continue to be a solid *performer*. (C6/Food processing/Executive)
- 8) The overall market has expanded as <product> came on to the *scene*. (C1/Pharmaceuticals/Executive)
- 9) So we are *staging* the launch, as we just finished the United States. (C10/Document services/Executive)

### 3.2. Metonymy

The manual examination of the lexical items automatically assigned to semantic domains revealed only one metonymy that emerged as key in terms of frequency of usage. Not surprisingly, that item was *call*, which was assigned to the *Speech\_acts* domain, where the act of calling on the telephone stands for the event itself, i.e. ACT FOR EVENT, as illustrated in example 10. This metonymy was used by both the company executives and the analysts, which suggests that it has become a well-consolidated figure of speech within the professional community that participates in this speech event.

- 10) On the last *call* you talked quite a bit about the potential for divestitures. (C18/Airlines/Analyst)

To explore other instances of metonymy in the Earnings Conference Calls Corpus that were not frequent enough to constitute key semantic domains, but were nonetheless potentially interesting, I used an alternative method. More specifically, from the master list of twenty-one major semantic fields and their subdivisions, I identified those that would appear to be good candidates for encoding metonymic relationships, such as PART FOR WHOLE, PLACE FOR INSTITUTION, PRODUCER FOR PRODUCT, and OBJECT USED FOR USER, referring to Lakoff and Johnson (1980). Through this process, the following semantic domains were distinguished: *Parts of buildings*, *Anatomy and physiology*, *Geographical names*, *Food*, *Clothes and*



*personal belongings* and *Other\_proper\_names*. The domains *Clothes and personal belongings* and *Other\_proper\_names* (which included both producer and brand names) did not contain any instances of metonymy, but several were found in the other domains. In example 11, the word *floor*, assigned to the domain *Parts of buildings*, was often used metonymically to encode verbal interaction, i.e. LOCATION FOR HUMAN RELATIONS.<sup>7</sup>

11) We'd like to open the *floor* now for questions. (C6/Food processing/Executive)

There was one instance of metonymy in the *Food* domain (example 12). It reflects the metonymy SUBSTANCE FOR EVENT, where *cheese* stands for the phenomenon of rising prices for this particular foodstuff.

12) *Cheese*, as you mentioned, is rising. (C4/Restaurants/Analyst)

The domain *Anatomy and physiology* presented some interesting cases of BODY PART FOR PRODUCT, specifically orthopaedic products as shown in example 13.

13) In the U.S. *hips* were up 13%, *knees* were up 5%, and *spine* was actually down 3%. (C15/Biotechnology/Executive)

In addition, in this domain there were some instances of *metaphthonymy*. Following Goossens (1990), these expressions represent an interaction between metaphor and metonymy. In cases involving the item *eye* (example 14), we have a metonymy within a metaphor, where the idiomatic expressions *keep an eye on* and its variation *keep an eye out for* encode the metaphor CONTROLLING IS SEEING, while the specific body part stands for the cognitive activity of controlling, i.e., BODY PART FOR ACTIVITY (Hilpert 2005). In example 15, the idiomatic expression *to get one's arm around something* is used metaphorically in the sense that UNDERSTANDING IS EMBRACING,

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<sup>7</sup> This figurative sense of *floor* is associated with the idiom *take the floor*, meaning the 'right to speak'. According to the American Heritage Dictionary of Idioms (Ammer 1997: 416), this sense derives from "the part of the legislature from which members address the group. [c. 1800]".

while *arms* as parts of the body stand for the cognitive activity of understanding.

14) It is important for us to really *keep our eye on* the 50 billion barrels of resources. (C2/Oil and gas/Executive)

15) He has been on the job now for somewhere between 30 and 90 days, so we will give Mike a chance *to get his arms around it*. (Company 15/Biotechnology/Executive)

The domain *Geographical\_names* revealed an especially interesting case of metonymy involving the lexical item *street*, representing the PLACE FOR INSTITUTION metonymy. As previously mentioned, this metonymy was also discussed by Lakoff and Johnson (1980), with specific reference to *Wall Street* (the place) that stands for the institution. The same metonymy was present in the Earnings Conference Calls Corpus, but underwent variation in both form and meaning, as illustrated in the concordances reproduced in Figure 2.

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FIGURE 2

Concordances of the *Street* metonymy

s ; market information provided by	Street	firms ; whole loan prices and index
oting to grow much faster than the	Street	's consensus forecast and as a resu
ng to be much more growth than the	Street	is expecting . And that there will
ifically a number 7 Specifically ,	Street	expectations . Deborah Crawford - N
consensus that 's out there on the	Street	for 2010 and 2011 for the core busi
st and as a result , the consensus	Street	estimate for subscriber growth and
nse is too low . And the consensus	Street	estimate for operating income and o

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As can be seen, *Wall Street* has become simply *Street*, with its status as a proper noun preserved by the capitalised first letter. There is also evidence of a fixed expression that combines *Street* and *consensus* to indicate the prevailing view of the professionals who are associated with the institution located on *Wall Street* in concordances 2, 6, and 7. Thus, *Street* stands not only for institution, but also for the people and organisations that operate within that institution, as well as their viewpoints. This particular metonymy, used by both analysts and executives, seems to reflect a highly cohesive discourse community that has developed its own “insider” language, which may be opaque to “outsiders”.

#### 4. Concluding remarks

This analysis has shown that both metaphor and metonymy are not restricted to written business and economics genres, but they also feature prominently in the oral discourse of the professional financial community. The Earnings Conference Calls Corpus contains numerous root metaphors associated with written texts, including those that project business and economic phenomena as living organisms or machines, as well as nautical and sports entities. Combinations of different metaphors within the same utterance (see example 4) further reinforce their important role within this spoken genre. An interesting borderline case was represented by numerous items that could encode the *THEATRE* metaphor, but this would warrant further targeted analysis in other business genres to shed more light on its metaphorical status.

The metonymies identified in the corpus involved a range of semantic domains, including acts, parts of buildings, food, human anatomy, and geographical names. Some instances of metaphonymy were also detected when parts of the body were used metaphorically, but the items that encoded the body parts also stood for other conceptually-related entities, thus constituting “metonymies within metaphors” (Goossen 1990: 323). Qualitative analysis of metaphors and metonymies in their context of usage highlighted their cohesive function within a close-knit community of practice whose distinctive usage of these figurative expressions appears to be tailored to their communicative purpose and interactional style. As Carter (2004) noted, figures of speech introduce informality and often signal solidarity among interlocutors. On a methodological level, the study shows how automated semantic annotation allows for open-ended analyses of figurative language beyond other types of corpus-based research that are limited to investigating a selection of predetermined lexical items (cf. Deignan 2005).

To expand this study, each of the figurative expressions identified through semantic domain analysis could be further investigated by means of comparisons with other appropriate corpora. This would provide additional insights into how extensively they are used and which are the most distinctive among the participants of earnings conference calls as members of the global financial community.

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