# **Metaphor in Business English**

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### Abstract

Metaphor is an important tool for developing business theories and communicating ideas in a business context. Linguistic research investigates the metaphors used in business English from various perspectives. This paper problematizes previous studies in terms of their applications of metaphor theories, the data and the methodological issues associated with metaphor identification and retrieval. These issues have profound influence on the findings and our knowledge of metaphors. It is argued that some of the studies employ a superficial view of metaphor and a more critical analysis and dynamic theories of metaphor is required. Furthermore, metaphor in multimodal communication needs more investigation. In addition, data are mainly written texts and thus spoken data require more attention in metaphor in business English research. What is more, clear criteria essential for identifying metaphorical expressions and methods for retrieving metaphors from large data sets are discussed. Only with more sophisticated use of metaphor theories, a wider range of data under investigation and suitable use of metaphor retrieval methods can we grasp a more thorough understanding of metaphor in business English. This knowledge can then be applied to language teaching, language description and critical studies of language and ideology.

*Keywords:* Business English, Cognitive Linguistics, Discourse Analysis, Metaphor

### Introduction

The **attack** on the Hong Kong dollar took on dangerous momentum after Taiwan abandoned its usual staunch **defence** of its currency late last week. Taiwan had been regarded as a **haven** of economic stability in the Far East, so badly **battered** by selling over the past two months, and its decision to allow the Taiwan dollar to **float** a powerfully negative message to investors in Hong Kong. [original emphasis] (Charteris-Black and Ennis, 2001: 254)

In recent years, much research has demonstrated that metaphor plays an important role in business English. The example above illustrates how metaphor is used in business news. According to Charteris-Black and Ennis (2001: 254), here we see three metaphorical expressions ('attack', 'defence' and 'battered') that constitute a physical conflict metaphor which conceptualises trading as a fight. Furthermore, the metaphorical expressions 'haven' and 'float' show that market trading is conceptualised as a nautical domain. The importance of metaphor in business English has been confirmed by both economics and linguistics research. Studies have shown that metaphor is a crucial tool to develop theories in economics (Hunt and Menon, 1995; Khalil, 1998; McCloskey, 1995; Rindfleisch, 1996) and communicate ideas and business phenomena to the public (Silaški and Durovic, 2010a; Skorczynska and Deignan, 2006). Indeed, metaphor studies have made a substantial contribution to business English research. As such, this is a great opportunity to reflect on what has been done as well as to suggest a way forward.

This paper reviews selected recent research on metaphor in business English. It aims to critically revisit the role of metaphor in business English. Essentially, this paper will problematize three issues concerning metaphor in business English: the applications of metaphor theories, the data and metaphor identification and retrieval. This paper will argue that in some studies the concept of metaphor has been applied

in a superficial manner, thereby lacking insights into the characterisation of metaphor employed in business English. Furthermore, it has been noted that research findings are directly influenced by what constitutes the data (Hunston, 2002). Thus, data and their effects on findings of previous studies are re-evaluated and the findings therefore are called into question. In relation to this point, this paper discusses the way metaphorical expressions are retrieved from a corpus of texts. This is because the coverage of metaphorical expressions will undoubtedly impact the analysis of metaphors in business English.

The organisation of this paper is as follows. Section 2 begins with the issue of defining metaphor from different theoretical standpoints, namely, cognitive linguistics, discourse analysis, critical discourse analysis and multimodal analysis. These theories are fundamental to the conception of metaphorical language in business English. In section 3, this paper outlines different strands of previous studies on metaphor in business English, namely, research that focuses on business lexis, the discourse functions of metaphorical expressions, metaphor and ideology and the multimodal nature of metaphor. In section 4, text types of data are discussed and criticised. Section 5 addresses the methodology of metaphor identification criteria and metaphor retrieval, especially the corpus linguistic methodology used by previous studies. Section 6 draws a conclusion.

## **Metaphor Theories**

The cognitive approach to metaphor, of which Lakoff and Johnson (1980) were the pioneers, brought about a paradigm shift in metaphor study. Metaphor is not only textual decoration but reflects the way humans think, act and speak. According to Lakoff and Johnson, conceptual metaphor is viewing one thing in terms of another, which then results in metaphorical expressions. It is a mapping of two conceptual domains – the source domain onto the target domain at the cognitive level (Lakoff 1993: 203). This is reflected in metaphorical expressions such as 'waste my time', 'spend your time' and 'invest a lot of time' (Lakoff and Johnson, 1980: 7-8). These metaphorical expressions are evidence

that time is conceptualised as money, enabling us to speak of time being wasted, spent and invested, even though time itself is abstract and intangible. Lakoff and Johnson argue that metaphor is ubiquitous and that humans' conceptual systems are metaphorical in nature. Humans use conceptual metaphor to make sense of the world and their experience. Therefore, it is a lens through which humans view the world. This theory sparked interests in metaphor research which aims to investigate humans' conceptual systems through metaphor.

Some criticisms have, however, been levelled at this theory, because it focuses on cognition and data come from introspection, thereby lacking empirical evidence from naturally occurring language. Furthermore, data generated through introspection are decontextualized; they disregard the social and communicative context in which metaphor is used (Koller, 2004). These criticisms led to a more discourse-oriented approach to metaphor study which considers the social context and communicative event in which metaphor is used (Musolff and Zinken, 2009). Charteris-Black (2004) emphasises the need for empirical evidence based on a corpus of naturally occurring data and the analysis of pragmatic functions of metaphor in discourse. He notes that metaphor is not just an indicator of conceptual structure but also a tool for communication, a point supported by various authors (cf. Cameron and Maslen, 2010; Musolff, 2006; Semino, 2008). As such, metaphor is used to communicate ideas in a vivid manner and has pragmatic force according to the context in which it is used. Metaphor is an important tool for persuasion because 'it represents a novel way of viewing the world that offers some fresh insights' (Charteris-Black, 2004: 7).

In addition, the concept of meta-functions of language in Systemic Functional Linguistics (Halliday and Matthiessen, 2004) has been employed to conceptualise the functioning of metaphor in discourse. According to this theory, language has three meta-functions, as follows:

- 1) textual function providing cohesion to facilitate the flow of discourse;
- 2) interpersonal function maintaining a relationship between

speaker and hearer;

3) ideational function – communicating ideas or experience.

It is argued that metaphor can perform all three metafunctions (Goatly, 1997; Semino, 2008). Regarding textual function, metaphor can help organise and structure the text, thus providing cohesion, highlighting important information and making text more memorable. An example is that, in a news article, metaphor in the headline can frame the news story and quite often metaphor in the body text echoes the metaphor of the headline, thus working as a cohesive tie in discourse (Semino, 2008). In terms of interpersonal function, the use of metaphor can have an emotional effect on the hearer. It can be used to convey an attitude, to humour someone and to enhance the intimacy of the interlocutors (Goatly, 1997). With respect to ideational function, metaphor can facilitate the communication of ideas because it can be employed to 'explain, persuade, reason, theorise, and offer new conceptualisations of reality' (Semino, 2008: 31).

What is more, the ideological aspect of metaphor has been noted by various authors (Charteris-Black, 2004; Goatly, 2007; Koller, 2004; Lakoff and Johnson, 1980; Lakoff, 1996; Van Dijk, 2006). According to Lakoff and Johnson (1980), metaphor can be used to highlight some things, hide others and shape the way people think and act. Goatly (2007) states that a large number of metaphorical expressions are conventionalised in language and consequently they appear to be objective and natural. It is almost as if metaphor reflects a pre-existing reality, while in fact metaphor plays an important role in constructing the reality. This, he argues, is not apparent to many people and therefore scholars in the field of critical discourse analysis aim to cast light on how metaphor constructs reality and reinforces social practices. Koller (2004) argues that metaphor reflects the collective mental representation of society. Deconstructing metaphor can shed light on how social categories such as men and women are represented in the minds of people in a social community. She argues that investigation of mental representation through metaphor analysis reveals that metaphor is used to marginalise certain groups of people, particularly women, in the domain of business. This point is discussed further in section 3.3 of this article.

The study of metaphor in business discourse has gone beyond the analysis of linguistic data alone. There is recognition of the multimodal character of metaphor used in communication, as noted by Forceville and Urios-Aparisi (2009). The source and target domains can be expressed using different modes. For instance, in an advertisement, the source domain could be expressed in images while the target domain is expressed in the accompanying caption.

These theoretical perspectives have a profound influence on the way metaphor is analysed in research on metaphor and business English. Some studies view conceptual metaphor as a useful tool for grouping business vocabulary according to the source domain(s). Some view metaphor from a discourse perspective and look at metaphorical expressions as well as their discursive functions. Others analyse the ideological functions, investigating how metaphor manipulates the mind and reinforces social domination. There are also studies that investigate how different modes are used to convey metaphorical meanings. The next section discusses previous research on metaphor in business English.

## Research on Metaphor in Business English

Research approaches metaphor and business English from various perspectives. There is no pre-existing categorisation of these studies. To divide the research into groups is tricky because some studies have more than one purpose and thus the categorisation is not always clear-cut. Despite the fuzzy boundaries, the author believes that this research can be divided into four main strands based on the main purpose of investigation. The first strand focuses on business lexis generated from conceptual metaphor. The second looks at the communicative functions of metaphor in discourse. The third investigates the ideology behind the use of metaphor in discourse. And the fourth analyses multimodal metaphor in discourse.

## 1) Business Lexis

In the first strand, the majority of research is motivated by the teaching implications of metaphor. It has been shown that foreign students struggle with metaphorical expressions when they have to attend lectures in English (Charteris-Black, 2000). Littlemore (2001), for instance, has shown that, in a lecture, many metaphorical expressions are used and foreign students often misunderstand or misinterpret those metaphors. Several researchers point out that the language of business and economics is full of metaphorical expressions, most of which underpin the conceptualisation of economic thought and generate the terminology or jargon of the discipline (Charteris-Black, 2000; Henderson, 2000). As such, it is essential that students are equipped with knowledge of the metaphorical expressions used in business and economic discourse, in terms of both language use and underlying conceptualisations of key concepts in the discipline. Henderson (2000) argues that metaphor can facilitate students' understanding of business concepts and enhance their retention of business jargon and terminology, a point supported by Charteris-Black (2000) and Herrera and White (2000). Boers (2000) conducted an experiment to determine the effectiveness of teaching business vocabulary with metaphor. The results indicate that students did indeed have higher retention. The potential for using metaphor in teaching business vocabulary has sparked interest in metaphor research into business English.

Studies in this strand cover a wide range of business/ economic topics that involve the use of metaphor to generate business terms, such as the concepts of financial crisis (Charteris-Black and Ennis, 2001), euro trading (Charteris-Black and Musolff, 2003), economic growth (Fukuda 2009) and investment banking (Grajewska, 2009). There are studies which only investigate English data and some which compare metaphor across languages. Three studies that only look at English data (Charteris-Black, 2000; White, 2003; Kheovichai, 2010) are discussed below.

Charteris-Black (2000) investigated metaphor use in business English for the purpose of English language teaching. He argues that metaphor has the potential to teach business English terminology and enhance students' understanding of business concepts which are mostly generated by metaphor. He employed a corpus linguistic method to investigate the collocates of 'economy' and 'market', focusing only on those which are metaphorical expressions. The analysis indicates that animate metaphors frequently collocate with 'economy', whereas inanimate metaphors frequently collocate with 'market'. His interpretation is that economists try to present themselves as being in control of the economy but portray the 'market' as being beyond human control. In the case of the 'economy', animate metaphors are used to conceptualise the economy as a patient, as can be seen in the metaphorical expressions 'economic health', 'ailing economy' and 'cure'. The metaphorical expression 'company doctor' illustrates the conceptualisation of economists as doctors who can cure a sick economy. In addition, there are anthropomorphic metaphors such as 'white knights', 'sister company' and 'parent company'. With regard to 'market', inanimate metaphors such as 'swing', 'rollercoaster' and 'collapse' are used to conceptualise upward and downward movement, which is uncontrollable and not the responsibility of economists. What is more, animal metaphors are used to conceptualise markets and traders, such as 'bear', 'bull' and 'predators'.

White (2003) analyses the concept of economic growth and how the living organism and machine source domains are used to conceptualise economic growth and how these metaphor are instantiated in metaphorical expressions and collocations of the word 'growth'. This study is based on business media texts. He focuses on collocates of 'growth' and only investigates two source domains that are used to conceptualise economic growth. These are living organism and mechanical process. The living organism source domain results in metaphorical expressions co-occurring with 'growth', such as 'revive', 'wither' and 'foster'. The mechanical process leads to metaphorical expressions co-occurring with 'growth', such as 'overheat', 'kick-start' and 'derail'.

Kheovichai (2010) investigates metaphor use in business research articles, using Wmatrix to retrieve metaphorical expressions.

He analyses how metaphorical expressions cluster to form metaphorical scenarios (Musolff, 2006) based on the source domains of war, sport, game, journey, machine, living organism, building, romantic relationship and physical forces. These source domains have a source-path-goal schema and they project entities and interactions on to the bounded space source domain which functions as a setting for a scenario. That is, economy and market are often conceptualised as a bounded space where business entities interact inside. For example, companies are conceptualised as warriors waging war against each other to capture more territory, that is, the market.

Several studies compare business lexis from different languages to examine similarities and differences in the conceptualisation of business concepts and linguistic realisations. The motivation for studies of this kind is that different languages can have different conceptual metaphors, different metaphorical expressions or different metaphorical meanings. Deignan, Gabryś and Solska (1997 cited in Charteris-Black and Ennis, 2001) note that four patterns are identified when comparing metaphor across languages. These are:

- 1) Same conceptual metaphor and equivalent linguistic expressions;
- 2) Same conceptual metaphor but different linguistic expressions;
- 3) Different conceptual use in two languages;
- 4) Words and expressions with similar literal meaning but different metaphorical meanings. (Deignan, Gabryś and Solska 1997 cited in Charteris-Black and Ennis, 2001: 253)

These differences can cause problems for students studying English as a second language when they face metaphorical expressions in English. As a consequence, studies that conduct cross-linguistic comparisons of metaphor use in business and economic discourse aim to raise students' awareness of metaphorical expressions. There are various topics that have been investigated, e.g. economic crisis (Charteris-Black and Ennis, 2001; Silaški and Durovic, 2010b), euro trading (Charteris-Black and Musolff, 2003), economic growth (Fukuda, 2009), markets

(Chung, 2008), investment banking (Grajewska, 2009) and metaphor in business magazines (Bratož, 2004).

Regarding financial crises, Charteris-Black and Ennis (2001) analysed metaphor use in news about the 1997 financial crisis in the English and Spanish press. The analysis indicates that there is a high degree of similarity in terms of both conceptual metaphor and linguistic realisation. The conceptual metaphors identified in both data sets are: THE ECONOMY IS AN ORGANISM, MARKET MOVEMENTS ARE PHYSICAL MOVEMENTS and DOWNWARD MARKET MOVEMENTS ARE NATURAL DISASTERS. There are, however, also differences in terms of linguistic realisation and the distribution of metaphor. For instance, while the state of the economy is frequently conceptualised as mental health in Spanish, it is often conceptualised as physical health in English. Moreover, the nautical metaphor used to describe market movements is more salient in English data. Furthermore, while in Spanish the word 'derrumbe' which means 'landslide' is used, the equivalent term in English does not occur.

Silaški and Durovic (2010) compare metaphor use in reports of financial crisis in the English and Serbian Press. They particularly look at the conceptual metaphor ECONOMY IS A PERSON. They find that an economy is often conceptualised as a sick person with varying degrees of illness, from 'catching flu' or 'catching pneumonia' to being 'in cardiac arrest' (ibid.: 135). Economists are also conceptualised as doctors who can diagnose and cure an economic crisis. These findings are generally consistent with previous studies, such as Charteris-Black (2000) and Charteris-Black and Musolff (2003). Silaški and Durovic find that both English and Serbian business news contains the same conceptual metaphors and equivalent metaphorical expressions. They further argue that Serbian business news is largely a translation from English, which is consistent with Bratoz (2004).

Charteris-Black and Musolff (2003) analysed metaphor use in news about the euro currency in English and German newspapers. They found that in both languages euro trading is frequently conceptualised as up/down movement and health. Physical combat is also used in both languages but is much more prevalent in English. Thus, English newspapers frame the euro as a combatant fighting to gain domination. German newspapers on the other hand present the euro as a receiver of benefits. Charteris-Black and Musolff then argue that while *up/down movement* and *health* metaphors do not require a strong focus, *fighting* metaphor in business English should be taught explicitly to German students because this metaphor differs across languages.

In respect of economic growth, Fukuda (2009) compares metaphors conceptualising economic cycles in American and Japanese economic assessment documents produced by government agencies from 1998 to 2006, focusing on *living organism* and *mechanical process* metaphors. She finds that while the American documents use a *mechanical process* metaphor, the Japanese documents do not. She attributes this disparity to the influence of differing dominant economic thoughts in these two countries, i.e. while economic thought in the US is heavily influenced by physics, in Japan it is influenced by Marxism.

Chung (2008) compares *market* metaphors in English, Chinese and Malay, using corpus linguistic methods to determine source domains and the grammatical roles of those metaphors. Data are based on business news in three languages: Utusan Malaysia, a news and magazines sub-corpus in Academia Sinica Balanced Corpus of Mandarin Chinese (available at http://www.sinica.edu.tw/SinicaCorpus/) and the New York Times sub-corpus of the American National Corpus. He uses the word 'market' in the three languages as a search term for each data set. The analysis indicates that there are large discrepancies in terms of the source domains used to conceptualise market. These are attributed to cultural differences. For example, the source domains that only appear in Malay are war, game, sponge, forest and king. The source domains that are only identified in Mandarin are *changeable entity, food, ball* and *fire*. The source domains that only occur in English are animal, image, aeroplane and submarine. Furthermore, the prominence of source domains, judging from frequencies of occurrence, is different across these languages; in Mandarin, *competition* has the highest frequency, in Malay it is *container* and in English *person*. Chung explains that the New York Times focuses more on reporting negative business news while Chinese and Malay newspapers emphasise competitiveness and other positive news. In terms of the grammatical roles of the word 'market', while in English it often occurs as a subject, in Malay it frequently occurs as an object. In Chinese, it occurs in both positions equally. Moreover, there is a relationship between source domain and grammatical role as well. For instance, when market is conceptualised as a person, it often occurs as a subject. On the other hand, when it is conceptualised as a container, it often occurs as a locative adverb. This study presents new insights into metaphor across languages, in terms of both source domains and grammatical roles.

Grajewska (2009) investigated how metaphor is used to generate technical terms in investment banking, especially in the field of mergers and acquisitions. She compared data from four languages: English, German, Spanish and Polish. She found that the four languages share many similar terms, such as 'black night' and 'bear hug'. However, due to different economic development, Polish, which is from a country less developed than the others, does not have some terms, such as 'Lady Macbeth Strategy' and '12b-1 fees'. She concludes that the use of metaphor in investment banking terminology is influenced by factors associated with the language, society, history and economy of the country.

Bratož (2004) compared the metaphors used in English and Slovene business magazines. She found a high degree of similarity between both data sets, which contain the same conceptual metaphors and similar linguistic realisations. The source domains of these metaphorical expressions are similar to those identified in other studies, such as *war*, *natural disaster* and *patient*. In fact, Bratož states that metaphorical expressions in Slovene business magazines are translations from English. Slovene business discourse is heavily influenced by Anglo-Americal culture. Despite the similarities, differences can also be detected. Some metaphorical expressions are specific to Slovene culture. For instance, while 'bubble' is used in English, 'balloon' is used in Slovene to

describe the same concept. In addition, while financial crisis is conceptualised as heat or nuclear disaster in English, it is conceptualised as a volcanic eruption in Slovene.

Another line of research into business lexis is Skorczynska Sznajder's (2010) study which tests the validity and practicality of metaphor taught in a business English textbook which aims to teach business students. She compares the metaphor taught in the textbook with the metaphor used in her self-compiled corpus of business news and business research articles. She focuses on three source domains used in the textbook, namely, war, sport and health. She uses corpus linguistics methodology to determine whether the metaphorical expressions mentioned in the book are used in the corpus. She identifies metaphorical expressions by reading five sample texts from her corpus and uses the metaphorical expressions identified as search terms to investigate the frequency and collocates of those metaphorical expressions in the whole corpus. Overall, she finds little resemblance between metaphor in the business English textbook and in her corpus. In addition, metaphorical expressions identified in both the textbook and her corpus exhibit different phraseological patterns. She argues for a textbook that is written based on findings from the analysis of authentic material, which could then provide metaphorical expressions that are frequently used in authentic writing.

Despite the insights from these studies, it seems that some studies (e.g. Bratož, 2004; Skorczynska Sznajder, 2010) use the conceptual metaphor as a way to group business lexis. This grouping allows cross-language comparison, the results of which can be explained by the socio-cultural differences between languages. While grouping business vocabulary according to the source domains can be useful for teaching, this is a rather superficial view of metaphor.

It is important to bear in mind that from a cognitive linguistics perspective metaphor is not simply an easy means of grouping business vocabulary. It reflects the cognitive reality of business people, indicating how business phenomena are conceptualised in their mind. As Lakoff and Johnson (1980) note, people are not generally aware of metaphor. For the

general public, metaphor is reality. Research can look into how business world are construed in discourse and conceptualised in the mind of business people. In so doing, we can take a more critical stance towards metaphor in business discourse by critically questioning how metaphor constructs reality and whether there are unintended ideological implications. For instance, Hunt and Menon (1995) argues that the prevalence of *war* metaphors may encourage business people to use every means possible to achieve their goals even though they have to hurt other people. Metaphor in business English research that aims at teaching implications do not emphasise this point. However, the author believes that critically examining metaphor and raising students' awareness of the role of metaphor in business English is crucial. This is because it will equip students with tools for critical thinking so that they can be transformative agents rather than passive receivers of knowledge who accept established metaphors without questioning.

Further, since metaphor involves rich correspondences between the source and the target domain, in some cases these correspondences form a scenario (Musolff, 2006). A scenario is a reference point from which people understand and interpret metaphorical expressions. It is therefore important to cast light on the correspondences and the scenarios that metaphorical expressions in each source domain are indicative of. While a number of studies do not explicate metaphorical scenarios, recent studies begin to explain them thereby shedding further light on the nature of metaphor in business discourse. For instance, Kheovichai (2010) argues that lexis that belongs to the war source domain constructs a scenario of soldiers fighting a war to survive or to gain more territory. He further states that the *journey* source domain has a scenario of travellers who travel to a destination but when there are other entrants, the travellers fight to protect their territory, linking this source domain to war. Future studies should therefore consider the metaphorical scenarios that metaphorical expressions form and perhaps they can analyse these scenarios in a critical manner. For example, with the discussion of Kheovichai's (ibid.) work, it seems that business activities are

conceptualised as domination and thus business is all about finding a way to dominate others. When teaching students about these metaphors, teachers may point this out to students to stimulate their thoughts and encourage them to evaluate the result of conceptualising business as war not only in terms of language but also of what business which is based on domination will cause to society.

# 2) Communicative Functions of Metaphor

Studies of metaphors in business English have gone beyond the investigation of lexis and focus on the communicative functions of metaphor in discourse. It could be argued that this trend derives from acknowledgement of the pragmatic functions of metaphor (Charteris-Black, 2004) and a move away from introspection towards empirical study based on naturally occurring language (Deignan, 2005; Semino, 2008). When looking at metaphorical expressions in isolation, one may only see conceptualisation; however, looking at metaphorical expressions in context, one can start to see how metaphor is used to perform certain communicative functions in discourse. While focusing on lexis can help students learn new vocabulary, it might not enable students to use metaphorical expressions. The second approach to metaphor research on business English has the potential to fill this gap and shed light on how metaphor is used in discourse.

Skorczynska and Deignan (2006) study the types and functions of metaphor in business texts written for different readerships. Data are based on business media texts intended for a general audience and business people on the one hand, and business research articles intended for experts and academics on the other. The results indicate that business media texts employ a wider range of source domains and contain a higher frequency of metaphor tokens. Business research articles contain fewer types of source domains but tend to use limited types of metaphor repetitively, thereby indicating a higher degree of formulaicity in business research articles. Regarding the functions of metaphor in discourse, Skorczynska and Deignan (2006) developed a classification scheme which was

motivated by Henderson (1986), who argues that metaphor performs three functions in economics texts: 1) textual decoration; 2) metaphor in general language used for organising texts; and 3) metaphor used for conceptualising business and economic ideas. This classification does in fact seem largely to correspond to Goatly's (1997) classification of metaphor's function in discourse. Then they give new labels to metaphor functions, i.e. 'illustrating', 'generic' and 'modelling' (Skorczynska and Deignan, 2006: 95-96). After analysing the data, a new category emerges and this is termed 'filling a terminological gap'. This type of metaphor is used to refer to business concepts for which general language lacks a term. An example is the phrase 'cash flow'. Data analysis indicates that while business media texts use illustrative and generic metaphor proportionately higher than do business research articles, business research articles use modelling metaphor more frequently. In terms of metaphor functions, there is little overlap between these two genres. The discrepancy is attributable to the readership and purpose of these genres.

Greco (2009) analyses metpahors in news headlines in three business magazines, including the Economist, Newsweek and Time. He identifies conventional metaphor from the source domains of *organism* and *war/sport/competition*. Many metaphorical expressions cluster in headlines to intensify the rhetorical effect. Some novel metaphorical expressions are identified as well and he argues that these metaphorical expressions are more interesting and attention-grabbing, thereby indicating that news writers attempt to emphasise newsworthiness.

Sun and Jiang (2014) compare metaphor in the mission statements of Chinese and American companies to see how metaphor communicates organisational image. They identify three conceptual metaphors: BRANDS ARE PEOPLE, BUSINESS IS COOPERATION and BUSINESS IS COMPETITION (ibid.: 4). While *cooperation* metaphor is used more frequently in American mission statements, *competition* metaphor is used more frequently in Chinese ones. This indicates that American companies present their ideal self through mission statements as a cooperative organisation. On the other hand, Chinese

companies are more "competition-oriented" (ibid.: 12), presenting themselves as top players, thereby focusing on their superiority over others, which is contrary to the traditional image of Chinese culture.

The communicative function of metaphor has also been investigated by Handford (2010). He examines how metaphor and idioms are used in business meetings. The findings indicate that metaphor and idioms are used for evaluative purposes. They can be used to evaluate ideas positively, which then create solidarity between business people. Alternatively, they can be employed for a negative purpose, namely, criticism, either mitigating or intensifying a negative message. It is concluded that metaphor and idioms play an important role in the interpersonal function of language.

Research on the communicative functions of metaphor in business English employs a rather static view of metaphor in discourse. This is perhaps due to the fact that most studies in this strand (except Handford's) are based on written texts whose dialogic nature is not very obvious. The author would suggest that research of this kind should look at the dialogic nature of discourse, involving text receivers' interpretation of metaphor as well as the intention of the text producer. Recently there has been an a discourse dynamism approach (Cameron & Maslen, 2010) to metaphor which involves analysis of metaphor in conversation and how interlocutors interpret metaphors and their function in discourse. This approach captures the dynamism of metaphor in discourse as it looks at how metaphors are negotiated and evolves in the unfolding discourse. Furthermore, it analyses the interlocutors' interpretation of metaphors and how the interlocutors influence each other's use of metaphorical expressions. This approach has not been widely applied in the analysis of English in business contexts and it is a potential candidate for offering a more dynamic analysis of metaphor used in business discourse.

# 3) Metaphor and Ideology

Another aspect of metaphor that has been investigated is its ideological function in business discourse. The third strand is influenced by

a critical approach to language studies. Particularly, these studies reflects a cross-fertilisation of conceptual metaphor theory and critical discourse analysis (Fairclough, 2010; van Dijk, 1993). In short, critical discourse analysis investigates language in social context to see how it is used to create and sustain social inequality (Wodak and Meyer, 2008). The premise of critical discourse analysis is that language is a key instrument for transmitting ideology, such as racism or gender discrimination, which serves the interests of the powerful. Ideology of this kind appears natural and looks like common sense, making the powerless group acquiesce to domination. The goal of critical discourse analysis is to demystify ideologically vested language and raise awareness of domination so that powerless groups can emancipate themselves. As Lakoff and Johnson (1980) argue, the conceptual structure of human thought is metaphorical in nature; metaphor is a potential site for investigating how ideology is instantiated linguistically and how metaphorical expressions are used for ideological manipulation. Work within this strand studies how metaphor is vested with political interests, resulting in domination and marginalisation (cf. Koller, 2004). There are five business topics under investigation: economic crisis, CEOs' letters, marketing, mergers and acquisitions and finally mission statements.

Studies have been done on metaphor use in financial reports of economic crises (Charteris-Black, 2004; López and Llopis, 2010). These studies have shown how the choice of metaphor is driven by political reasons. Charteris-Black (2004) analysed metaphor in The Economist and found that inanimate metaphor is used to portray economic problems as natural disasters which are beyond humans' control, thereby concealing the agents who cause the problems in the first place. Furthermore, metaphor is used as hyperbole, intensifying public fears and potentially worsening the economic situation. López and Llopis (2010) compare metaphor in British and Spanish business news reports before and after the 2007 global systemic crisis. They find that, in the British press, metaphor is employed to portray a negative economic situation before and after the crisis. In contrast, in the Spanish press, metaphor is used to portray the

economic situation in a positive light before the crisis but after the crisis to present a negative economic situation. Lopez and Llopis argue that the Spanish government tried to suppress news about the looming economic crisis in order to maintain its popularity prior to a forthcoming election. In consequence, the choice of metaphor was politically driven, hiding a negative phenomenon for political gain.

Nicolae (2010) investigates metaphor use in CEOs' letters from various companies during the 2007 economic crisis. The analysis indicates that metaphorical expressions are carefully selected to present companies in a positive light. Furthermore, metaphorical expressions are used to downplay the impact of the crisis on company performance. Metaphorical expressions from various source domains occur in clusters to enhance the positive image of the company. As such, it is concluded that metaphor has the ideological function of portraying a desirable corporate image and manipulating the public's understanding of a company's business situation.

Under the topic of marketing and mergers and acquisitions, studies have investigated the ideological nature of metaphor from various perspectives. Koller (2004) studied the metaphors used in marketing, mergers and acquisitions news in Business Week, The Economist, Fortune and the Financial Times. Regarding marketing, war, sport and game metaphors dominate marketing news, reflecting the aggressive and goal-oriented nature of marketing. Koller argues that these metaphors are masculinised, reinforcing the conceptual model of marketing as a male-dominated domain. The analysis of mergers and acquisitions news indicates that a company that takes over another firm is often conceptualised as male, whereas the company being taken over is often conceptualised as female. The takeover is in some cases conceptualised as sexual violence, as war and mating metaphors cluster near each other to form a scenario of forced consummation. An example is given below:

At a recent conference, Ron Sommer of Deutsche Telekom, Germany's former telephone monopoly joked that **suitors** in the telecoms industry now need fat chequebooks and **a bunch of flowers**. And if **gallantry** is rebuffed? Throw away the **flowers** and call in the **tanks**. (Koller, 2004: 137)

From this excerpt, the *mating* metaphor can be seen in 'suitors', 'a bunch of flowers' and 'flowers' which show that a company takeover is conceptualised as wooing a woman. However, if the company being taken over rejects the advance, the other company is conceptualised as using violence, as in the phrase 'call in the tanks'. This cluster of metaphorical expressions reflects the idea that violence against women is justified. Koller argues that metaphor of this kind reflects the social cognition of business people which marginalises women, thus sustaining the patriarchal ideology of the male-dominated organisation.

Alousque (2011) compares the British and Spanish press coverage of the Endesa (the biggest Spanish electricity utility company) takeover. She finds that metaphors from several source domains, such as *war, sport* and *marriage*, are used to frame the takeover as a confrontation between the companies bidding to take over Endesa. She argues that metaphor simplifies the takeover process and constructs the reality about the takeover as a fight between two companies, which are conceptualised as male suitors, for Endesa, which is conceptualised as female.

Guo (2013) compares metaphor use in American and Chinese press reports of the acquisition of Volvo by Geely, a Chinese company. The main argument in this work is that metaphor creates the social reality of a phenomenon and shapes the public's understanding of an economic event. He adopts a critical approach to metaphor analysis, focusing on how metaphor use in the news is influenced by a political agenda. The analysis indicates that the Chinese media employ metaphor that conceptualises the unison between the two companies as a marriage and a journey towards progress. The American press, on the other hand, employs metaphor to present the acquisition as a Chinese political move to dominate the global economy.

While these studies offer crucial insights into metaphor as ideologically vested language, they are associated with limitations. Even

though these studies make claims about the intentions and rhetorical effects of metaphor use, they have not scrutinised the context of text production and reception. That is, they have not investigated what the text producers think when they produce the texts and what the readers think when they consume them. This criticism is consistent with Widdowson (1995), who criticizes critical discourse analysis research in general that when researchers make an interpretation of linguistic features, they do not explain how the knowledge which allows them to make the interpretation. Studies of this kind should therefore strengthen their claims, consolidating their analysis with more investigation into text production and consumption.

In addition, these studies only analyse language. As noted in Section 2, research has shown that metaphors can be instantiated, using images and other modes of communication (Forceville & Urios-Aparisi, 2009). Generally, there are images on front page news. Although some of these studies in this group look at news article, they do not mention images at all. It is not clear whether they included front page news in their data or not but given the significance of the topic such as economic crisis, it is only to be expected that front page news should have been included. In consequence, these studies could have been more thorough if language and other modes of communication are considered.

## 4) Multimodal Analysis of Metaphor

Velasco-Sacristán (2010) analyses metaphorical images of cosmetic products which conceptualise products as humans. She notes the metaphor, metonymy and synecdoche used in pictorial metaphors in advertisements and their interplay in presenting gender ideology associated with masculinity and femininity. Koller (2009) investigates multimodal metaphor in corporate branding messages on corporate websites. She notes how the conceptual metaphor BRANDS ARE PEOPLE is instantiated in illustrations, layouts and logos. This metaphor serves to construct a positive corporate identity and persuade employees to identify themselves with the brand image of the company.

Apart from images, metaphor can be expressed using gesture. Skorczynska (2014) investigates gestural metaphor in business training talks. She analyses how the presenter uses metaphor via gesture or images in PowerPoint presentations to communicate ideas and interact with the audience. She finds that journey metaphor is used extensively to conceptualise the concept of project management. Other source domains identified are race, building, physical object, orchestra and war, but these are marginal. In many cases, the source domain is presented in images and the presenter makes verbal reference to the target domain, or in some cases does not. In addition, the presenter uses both gesture and speech to express the source domain or mentions the source and target domains in speech but gesture to express the source domain. The primary function of metaphor in this context is to maintain the audience's attention and persuade them. Furthermore, metaphor is used to structure the talk, e.g. when initiating a new topic. Overall, metaphor instantiated in pictures, gestures and speech serves to appeal emotionally to audiences, making them buy into the talk.

To date, there have been relatively few studies of this kind. Therefore, there is a clear need for more studies that investigate multimodal metaphors. Furthermore, these studies are mostly based on data of a limited size. For instance, Skorczynska (2014) looks at business training talks given by only one person. Since this study is based on only one person, it remains unclear whether the results are generalizable. However, since the study involves a very detailed analysis of metaphors expressed in various modes as well as their interconnection, the size of the data is limited if the analysis has to be done manually.

Nonetheless, recent advancement in corpus linguistics has paved a way for a semi-automated analysis of multimodal data. Baldry & Thibault (2006), for example, has developed corpus analysis software to analyse multimodal data. However, to the best of the author's knowledge, there is no study that employs corpus analysis software to analyse multimodal metaphors. Corpus linguistic methods have proved successful in the analysis of linguistic data (cf. Alice Deignan, 2005) but it remains to be seen whether they can be utilised for analysis of multimodal metaphors.

# **Text Types Used for Metaphor in Business English Research**

Findings of studies on metaphor in business English are closely tied to the types of data under investigation. It could be argued that business genres are all related as Skorczynska & Deignan (2006) note that business magazines do use metaphorical expressions that originate from business science discourse such as business textbooks and research articles. However, they also note that metaphors in business research articles are largely different from those in business media texts. Also, if we compare findings from Kheovichai's (2010) study which investigates business research articles and Koller's (2004) work which is based on business magazines, we can see the conceptualisation of merger and acquisition as a rape found in Koller's does not appear in Kheovichai. Differences in metaphor use across genres may not only be a matter of language but also different conceptualisation of reality. Different genres entail different contexts and different readerships. In consequence, if one does research based only one genre, one has to be cautious when making claims about the generalizability of his or her findings. Claims about metaphors in business English can be made in the local context of the data. As such, to achieve better insights into metaphor in business English, we need to investigate as many genres as possible. Although no one may be able to investigate every genre, future studies should undertake an investigation into the genres that have not yet been explored, which would then offer us a more thorough understanding of metaphor in business English.

So far a number of text types have been investigated, indicating that metaphor does indeed play an important role in business discourse. Table 1 shows the genres that research has investigated. It should be noted that some studies appear in two categories, such as Skorczynska Sznajder (2010), because they use various sources of data.

**Table 1:** Text types investigated by previous studies

Text type	Research
Business news and magazine	Bratož (2004), Charteris-Black (2000), Charteris-Black and Ennis (2001), Charteris-Black (2004) Charteris-Black and Musolff (2003), Chung (2008), Grajewska (2009), Greco (2009), Guo (2013), Koller (2004), Koller et al. (2008), López and Llopis (2010), Silaški and Durovic (2010a, 2010b), Skorczynska and Deignan, (2006), Skorczynska Sznajder (2010), White (2003)
Business research articles	Skorczynska and Deignan (2006), Skorczynska Sznajder (2010), Kheovi- chai (2010)
Mission statements and corporate webpages	Grajewska (2009), Koller (2009), Sun and Jiang (2014)
Advertisements	Forceville and Urios-Aparisi (2009), Velasco-Sacristán (2010)
Economic assessment reports	Fukuda (2009)
CEO letters	Nicolae (2010)
Business English textbooks	Skorczynska Sznajder (2010)
Business meetings	Handford (2010)
Business trainings	Skorczynska (2014)

The majority of studies base their analysis on business news. A few look at research articles, mission statements, textbooks, economic reports, CEO letters, meetings and business training. It is evident that research predominantly focuses on written genres, with the exceptions of Handford (2010) and Skorczynska (2014). The knowledge on how metaphor is used in spoken business discourse is still limited. In consequence, more investigation should be carried out on spoken business genres, such as business presentations or job interviews.

In addition, there is a problematic issue with the majority of studies that examine business news but claim to have implications for teaching

language to business students and business professionals. Henderson (2000) points out that the language in business news is different from the language used in business contexts and business studies. In respect of business students who need to study the language used in their studies, findings from the analysis of metaphor use in business news may not correspond to what students need for their study. The effect of genre on metaphor use is shown by Skorczynska and Deignan (2006), who compared metaphor use in business news and business research articles. They found that the metaphors used in business research articles are very different from those used in business news. The differences are in terms of both source domains and the phraseological patterns of metaphorical expressions. Further, Nesi and Gardner (2012) argue that while a vast amount of ESP research investigates research articles as a model for language that students need, most students at undergraduate level do not need to write research articles. For research that aims to help business students, studies can investigate textbooks, students' essays, lectures, seminars, presentations and other genres associated with activities that business students need to master in academic contexts. This can lead to findings that meet students' needs and thus are more relevant and useful.

In relation to studies that compare metaphor across languages, questions still remain as to whether the tendencies identified in these studies reflect the differing news reported or the conceptualisation of business concepts. Ideally, a comparison should be made of the same news story reported in different languages. It should also be noted that while these studies state that different conceptualisations of business across languages can be obstacles to students, the majority of the studies find a large degree of similarity when they compare metaphor use in European languages and English (cf. Bratož, 2004; Charteris-Black and Ennis, 2001; Grajewska, 2009). In contrast, Chung identifies a high level of disparity between English, Malay and Mandarin Chinese. This discrepancy raises the question of whether or not Asian students of English have more difficulty in understanding metaphorical expressions than do European students of English. Research in contrastive analysis also points out that differences

between the mother tongue and the target language can cause difficulty to students (Zobl, 1982). Future studies can investigate whether or not this hypothesis is true. What is more, while a cross-linguistic comparison of metaphor has been made of various languages, to the best of the author's knowledge there is no study that has compared metaphor use in English and Thai in the domain of business. In consequence, this is a possible venue for future studies. In addition, future studies can compare metaphor use in business texts in English and Thai aross various genres, such as financial news and research articles, to examine the interplay of language and genre and its influence on the linguistic realisations of metaphor.

There are some genres that, to the best of my knowledge, have not been investigated in terms of metaphor use. These are new media genres such as corporate blogs, company facebook pages, twitter and other social media. Metaphor in a more conventional genre, like press releases, has not been investigated either. The importance of these genres is undoubtedly increasing. Therefore, they deserve more investigation which can lead to a better understanding of the role of metaphor in business discourse and the implications for business English teaching.

# Methodological Considerations for Metaphor Identification and Retrieval

There are two methodological considerations related to metaphor retrieval, namely metaphor identification and metaphor retrieval. The methodological issues related to metaphor identification and retrieval are significant for our understanding of metaphor in business English for two reasons. First, to decide what counts as a metaphorical expression will no doubt impact the results of the research. Furthermore, without clear criteria for identifying metaphor, research would then lack methodological rigour and thus the claims are not firmly grounded. The second reason is associated with the completeness of research. As will be discussed below, many studies employ a corpus technique for retrieving metaphorical expressions. Yet, the methodology adopted can capture all of metaphorical expressions in the data. The incompleteness of metaphor retrieval can render the analysis problematic because the missing metaphorical expressions can lead to important changes in

the way metaphor are analysed. These two issues are consequently of critical concern and directly influence our understanding of metaphor in business English.

## 1) Metaphor Identification

For metaphor identification, the key issue is the criteria for judging whether words or phrases are metaphorical or not. The definitions in previous studies are unclear and the criteria for identifying metaphor are not uniform. For instance, Charteris-Black (2001) gives the following criteria for identifying metaphor:

When a word or expression that has a primacy physical meaning or that normally has an inanimate subject is used to describe an abstract process such as a change in share price it was counted as a metaphor. (Charteris-Black, 2001: 254)

One can see a weakness in this criterion because metaphor does not always have to describe an abstract process. As noted in Koller et al. (2008), metaphorical expressions are used to describe business people (clearly not an abstract process), conceptualising them as gardeners. In recent years, a group of metaphor scholars noticed inconsistencies in the metaphor identification procedure and thus they collaborated to address this problem by establishing a metaphor identification procedure (MIP) which consists of the following steps:

- 1. Read the entire text-discourse to establish a general understanding of the meaning.
- 2. Determine the lexical units in the text-discourse
- 3.(a) For each lexical unit in the text, establish its meaning in context, that is, how it applies to an entity, relation or attribute in account what comes before and after the lexical unit.the situation evoked by the text (contextual meaning). Take into (b) For each lexical unit, determine if it has a more basic

contemporary meaning in other contexts than the one in the given context. For our purposes, basic meanings tend to be:

- More concrete [what they evoke is easier to imagine, see, hear, feel, smell or taste];
- Related to bodily action;
- More precise (as opposed to vague);
- Historically older; basic meanings are not necessarily the most frequent meanings of the lexical unit.
- (c) If the lexical unit has a more basic currentcontemporary meaning in other contexts than the given context, decide whether the contextual meaning contrasts with the basic meaning but can be understood in comparison with it.
- 4. If yes, mark the lexical unit as metaphorical (Pragglejaz, 2007: 3)

This method has gained wide recognition and the number of studies employing this method is increasing (cf. Cameron and Maslen, 2010; Silaski and Durovic, 2010). These criteria provide researchers with principled ways to identify metaphor and count the frequency of metaphor in a corpus in a systematic manner.

# 2) Metaphor Retrieval

Research on metaphor in business English employs a corpus-based approach to investigation and there are various ways in which metaphor is retrieved. While some studies involve reading texts manually (cf. Charteris-Black and Ennis, 2001; Grajewska, 2009; Greco, 2009; Guo, 2013), others use corpus linguistic methods to retrieve metaphorical expressions (cf. Charteris-Black, 2004; Koller et al., 2008; López and Llopis, 2010; Skorczynska and Deignan, 2006). Studies in which texts are read manually restrict the size of the corpus. For instance, Charteris-Black and Musolff's (2003) study is based on two corpora of 25,017 words and

25,668 words. Research that employs corpus linguistic methodology has the advantage that the size of the data set is less constrained. For instance, Skorczynska and Deignan (2006) conducted research based on a corpus of approximately 500,000 words. Charteris-Black's (2004) research is based on The Economist sub-corpus of the Bank of English, which amounts to 16 million words.

It should be noted that even though some studies employ corpus linguistic methodology, the size of the data is very small. For instance, López and Llopis' (2010) study is based on four corpora of 4,699, 4,913, 4830 and 5028 words. According to Gavioli (2005), small corpus is around 50,000- 100,000 words. Such small sizes raise the question of whether corpus linguistic methodology is needed in the first place. The researchers could simply read through the texts to retrieve metaphorical expressions manually.

The analysis of a large data set can be facilitated by the semi-automated methods of corpus linguistics. There are various ways whereby studies in this group use corpus linguistic methodology to retrieve instances of metaphorical expressions in the data. The first approach is a lexically-based search. These studies focus on particular words that instantiate the source or target domains. Studies such as Charteris-Black (2000) focus on a particular word, e.g. 'economy' or 'market'. He uses these words as search terms for corpus analysis and looks at their collocates which are metaphorical. Instead of selecting words from the target domains, Koller (2004) compiled a list of words that are potentially indicative of source domains. She investigated metaphors of war, sport, game and evolutionary struggle in her self-compiled of Business Week, The Economist, Fortune and the Financial Times. She generated a list of words, using her familiarity with the genre and dictionary entries in a thesaurus, to arrive at words in semantic domains that are associated with the source domains in question. For example, for the source domain of war, she selects such words as 'armour', 'attack', 'battle', 'launch' and 'war'.

These two approaches do have some limitations. The analysis is based on only a few words and thus it may not retrieve all the metaphorical expressions related to business and economic concepts. Moreover, the words 'economy' and 'market' in Charteris-Black's (2000) work might not be mentioned though texts may still refer to these concepts. This is evidenced in this excerpt from Charteris-Black and Ennis (2001: 263):

A **meltdown** on Wall Street would not be justified. ('The Times' 29 October 1997, 'Wall Street Blues') [my emphasis]

From this excerpt, it can be seen that the word 'meltdown' refers to the dysfunctional state of the economy. Here the word 'meltdown' shows that the economy is conceptualised as a nuclear disaster. However, the word 'economy' is nowhere near it. In consequence, if one searches for the word 'economy' in a corpus, hoping to find all the metaphorical expressions associated with economy, one is likely to miss this example. Furthermore, both approaches start with pre-selected strings of words, thereby requiring a priori knowledge of the researchers. In addition, the search limits the findings to these preselected strings of words.

Another approach used for finding metaphorical expressions in a corpus involves reading sample texts from the corpus, first to identify metaphorical expressions manually, then to use them as search terms to retrieve all the instances of those words. This method allows the analysis of collocational patterns and frequency comparisons of metaphorical expressions. Further, Skorczynska and Deignan (2006) argue that reading sample texts allows researchers to see how metaphor is used in context, which then informs the researcher of the discursive functions of metaphor. However, reading only a few sample texts is unlikely to yield all the metaphorical expressions in a corpus. Metaphorical expressions that do not occur in sample texts will be missed. This point is acknowledged by Skorczynska and Deignan (2006) who caution that the findings from their study are not complete.

The last approach is the use of semantic annotation software, USAS, which is embedded in the Web-based corpus analysis software Wmatrix (Rayson, 2008). This software assigns a tag to the words or

phrases in a corpus based on the semantic domain that they belong to. The labelling of these semantic tags mostly corresponds to the source domains that have been discussed in the conceptual metaphor literature. Users can search a corpus based on a semantic domain and the software will generate a list of all the words in the semantic domain. Concordances of these words can then be generated for further analysis. Koller et al. (2008) and Sun and Jiang (2014) used this method to retrieve metaphorical expressions in their corpus. Koller et al. (2008) revisited previous work done by Koller (2004). In that previous work, Koller (2004) generated a list of words based on a thesaurus and her knowledge. But Koller et al. (2008) used Wmatrix to retrieve metaphorical expressions via semantic tags potentially relevant to the source domains under investigation. They found more metaphorical expressions and a new conceptual mapping, i.e. business people are conceptualised as gardeners who look after a plant. Sun and Jiang (2014) used Wmatrix to compare American and Chinese mission statements with the BNC written sub-corpus to determine key semantic domains associated with PEOPLE, COOPERATION and COMPETITION.

While the use of Wmatrix allows for a more open-ended approach to metaphor identification, it also has its limitations. To use Wmatrix, one needs to have in mind the source domains that will be investigated. As such, a priori knowledge of source domains is still required. Furthermore, the accuracy of this software is approximately 91 per cent, which is in fact very high, but still not 100 per cent accurate. In consequence, this approach is still unable to offer a truly open-ended search in a corpus. It is more suitable for studies that aim to compare metaphors from certain source domains across genres as it can retrieve all the words that belong to the semantic domains that correspond to the source domains.

#### Conclusion

This paper has discussed various types of research on metaphor use in business English and problematized issues related to the assumption of metaphors and the research methodology of these studies. Different strands of research look at different aspects of metaphor. The

first strand investigates lexical realisations of metaphor and finds source domains a useful concept to group business lexis according to the underlying source domains that generate it, which then facilitates students' understanding of the conceptualisation of business phenomenon. Studies in this strand conduct a cross-linguistic comparison of metaphor in business English to raise students' awareness of different conceptualisations of business concepts or different terminology which could be an obstacle to students of English. One study tests the validity of metaphor in business English textbooks, only to find that it is not used in authentic texts. However, some studies in this group seem to have a rather superficial view of metaphor. This paper argues that studies within this strand would benefit from a more critical analysis of metaphor, the findings of which can be used to teach students the ideological aspect of metaphor in business English.

The second strand analyses the communicative functions of metaphor. It looks at metaphor beyond the level of lexis, examining the discursive aspect of metaphor. Research in this strand employs a rather static view of metaphor use in communication. This paper suggests that a more dynamic theory of metaphor can be used to capture the interaction dynamism of metaphor in discourse.

The third strand of metaphor studies the ideological function of metaphor. It investigates how metaphor manipulates people's minds, thus exposing the abuse of power by powerful groups, and in turn plays a role in maintaining social inequality. Research within this strand could have been strengthened by supplementing the interpretation with more investigation into text production and consumption as well as the multimodal features of metaphor.

What is more, the multimodal nature of metaphor is investigated, thereby shedding light on various semiotic resources used to convey metaphorical meanings in discourse. However, studies in this strand are still scant and the scope is relatively small. It is hoped that new methodology of corpus linguistics would facilitate data analysis on a large scale.

This paper has also dealt with the types of data under investigation. From the discussion in Section 4, it is evident that the majority of the studies are based on written texts, mainly business news. Recent work has expanded the scope by exploring various other genres, some of which are occluded genres such as business meetings.

Two more points to note are metaphor identification and retrieval. This paper argues that MIP (Pragglejaz 2007) should be used to ensure consistency in identifying metaphorical expressions. For metaphor retrieval, several corpus linguistic methods have been discussed in terms of their strengths and weaknesses. Above all, none of these methods is perfect, but researchers can select the method that is most suitable to the purpose and design of their study.

The issues of metaphor theories, data, metaphor identification and retrieval certainly have an impact on the findings of metaphor in business English research. Thus, this paper has critically examined these issues and argued for a more rigorous approach to metaphor research both in terms of metaphor theory applications, data and other methodological considerations. With a firmer ground on these issues, research can shed further light on metaphor use in business English and offer implications for teaching, language description and critical studies of language and ideology in a well-grounded manner.

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