

Winnie Cheng

Department of English, The Hong Kong Polytechnic University,
Hungghom, Hong Kong
egwcheng@polyu.edu.hk

Abstract: This study is part of a large-scale on-going research project that investigates financial analyst reports in terms of the discursive presentation of economic and investment content and the strategic deployment of expert discursive resources to achieve personal, organisational, institutional, professional, and socio-cultural goals. The project aims to achieve the goal by examining the language, content/topics and issues presented in the financial analyst reports for specific groups of audience. In the present study, a corpus of financial analyst reports of a bank was analysed in terms of the discourse field 'Emotions' and the use of metaphors in the constituent words. Findings are discussed with reference to both the corporate culture and the wider economic and business contexts.

Key Words: Metaphors; Corpus Linguistics; Financial Analyst Reports

Introduction

The corpus-based study (Cheng, 2012) reported in this article aims to critically examine the use of metaphors in a self-compiled corpus of financial analyst reports that describe and express the emotions relating to the description, analysis and prediction of the financial situation and investment environment during February 2011 and January 2012. This period was particularly important from the perspective of the financial analysts' discourse as the market situation, especially in Europe, was highly turbulent due to the on-going Euro crisis. The specialised corpus was compiled from online texts from the BNP Paribas (BNPP). The computer programs *Wmatrix* (Rayson, 2008) and *ConcGram* (Chris, 2009) were used to interrogate the corpus in terms of semantic categories and word meanings. The Metaphorical Identification Procedure (MIP) (Pragglejaz Group, 2007) was adopted to identify and describe metaphorical meanings related to emotions, underpinned by the Conceptual Metaphor Theory (Lakoff & Johnson, 1980).

Financial services have increasingly become an important contribution to global economic growth in the 21st century. Among all the genres in the financial services industry such as annual reports, business reviews and SEC filings, financial analyst report is an important genre, which often contain an assessment of economic performance, earnings forecasts and stock recommendations, drawing from a wide range of information on industry, business, and economic trend

(Financial Industry Regulatory Authority Guide, 2009). In times of financial fluctuations, stress, crisis and post-crisis, financial analyst reports perform more different communicative functions, enacting various discourses such as analyses, justifications and forecasts, and strategically deploying various expert discursive resources to achieve personal, organisational, professional, institutional, and socio-cultural goals (Huckin, 1997; Baker, *et al.*, 2008).

In a recent study, Burnes (2011) compared the deployment of metaphors between the British and French media in reporting the United States and Pakistan Parliamentary elections in February 2008. The greater variety of metaphors of ENTERTAINMENT (e.g. *step into the spotlight on the Washington D.C. stage*), JOURNEY (e.g. a country at the *crossroad*), and STORY (e.g. *his narrative of better health care*) identified in the news reports of Barack Obama's election construes a positive image. On the other hand, PHYSICAL COMBACT and DISASTER metaphors such as *battlegrounds* and *routed* negatively described the parliamentary election of Pakistan President Mr. Musharraf, reflecting interpersonal aggression. Soler (2008) and Burnes's (2011) findings show that metaphors are pervasive in news texts, and they have the functionalities of reconceptualization, expression, and explanation of emotional attitudes.

Methodology

The financial analyst reports were collected from the website of the BNP Paribas (BNPP) from

February 2011 to January 2012¹. This period of study was crucial from the perspective of financial analysts' discourse because the market situation, especially in Europe, was highly uncontrolled due to the on-going Euro crisis. The BNPP was the world's biggest bank in 2011, providing services in Corporate and Investment Banking, Retail Banking and Investment Solutions. The BNPP Corpus (BNPPC) (567,191 words) comprises all the four online publications in the Economic Research section. The reports in the corpora were mainly written by the in-house teams of the banks.

The study combines corpus and critical discourse analytic approaches and methods. *Wmatrix 3.0* (Rayson, 2008), a semantic annotation tool, was used to assign a semantic tag to every word in the BNPPC. Since the study seeks to identify the metaphorical expressions which describe and express the emotions about the description, analysis and prediction of the financial situation and investment atmosphere in 2011-2012, the discourse field of 'Emotion' was analysed. The semantic categories in the discourse field of 'Emotion' include 'Worry', 'Violent/Angry', 'Confident', 'Fear/Shock', 'Emotional Actions, States And Processes General', and 'Sad'. The USAS tool of *Wmatrix* was used to find the words in each of these semantic categories. Frequently occurring lexical words in each semantic category were then generated to provide a better understanding of the contextual meaning of the semantic categories of Emotion in the BNPPC.

The concordances for some of the most frequent lexical words were generated with the use of *ConcGram* (Greaves, 2009). In each concordance line, the words that co-occur with the emotion word were examined by adopting the Metaphor Identification Procedure (Pragglejaz Group, 2007). An excerpt from the BNPPC illustrates the MIP procedure:

(1) Financial market tensions could spill over to the real economy.

In Example **(1)**, the agent for the action is the noun tensions. The contextual and basic (dictionary) meanings of 'spill' are shown to be different. The basic meaning of the word spill means 'flow or cause to flow over the edge of its container' (*Concise Oxford English Dictionary*, 2011, p. 1390), showing that the physical movement is involved. Concordance analysis of the verb *spill* indicates *widespread influence* because the spread of emotion looks like the water being flown out of a container. Therefore, the contextual sense of the word *spill* is interpreted to be more abstract than that of the basic sense, and hence *spill* in the BNPPC is regarded as metaphorical.

The next step is for the metaphorical expressions

identified from MIP to be classified into various source domains, as suggested in Conceptual Metaphor Theory. In order to provide a stronger basis for the interpretations of metaphors, the METALUDE online database (Metaphor at Lingnan University, Department of English) (Goatly, 2011) was consulted as reference materials for both labeling the source domains and interpreting metaphorical meanings.

Findings are then interpreted and explained by adopting the approach of textually-oriented critical discourse analysis (Fairclough, 1989). The use of metaphors in the financial analyst reports in the financial institute BNPP is examined as "discourse-as-social-practice" (Thornbury, 2010: 283) during the European credit crisis. Metaphors are regarded as linguistic realizations that function to describe and express the emotions relating to the description, analysis and prediction of the financial situation and investment environment.

Findings and discussion

The frequency distribution of various semantic categories of the discourse field of 'Emotion' (Table 1) and the top twenty most frequent words in each category (Table 2) in the BNPPC will be discussed, followed by the patterns of co-occurrence of metaphors and emotion words in the corpus.

- Semantic categories

Table 1 describes the relative frequencies (and percentages) of occurrence of different semantic categories of 'Emotion' in the BNPPC.

Table 1: Semantic categories of 'Emotion' in the BNPPC

| Semantic category | Frequency (Percentage) |
|---|------------------------|
| Worry | 704 (0.13%) |
| Confident | 595 (0.11%) |
| Violent/Angry | 469 (0.09%) |
| Fear/Shock | 326 (0.06%) |
| Emotional Actions, States And Processes General | 208 (0.04%) |
| Sad | 227 (0.04%) |
| Discontent | 161 (0.03%) |
| Like (++) | 102 (0.02%) |
| Calm | 68 (0.01%) |
| Like | 64 (0.01%) |
| Happy | 53 (0.01%) |
| Content | 24 (0.004%) |
| Dislike | 9 (0.002%) |
| Liking | 6 (0.001%) |
| Bravery | 6 (0.001%) |

¹ In the BOC Archives, only reviews of the past year were available. The same applies to most of the publications in the BNP Paribas Archives.

The most frequent emotion-related semantic categories are immensely negative, with ‘Worry’ topping the frequency list, followed by ‘Violent/Angry’, ‘Fear/Shock’, ‘Emotional Actions, States And Processes General’, ‘Sad’, and ‘Discontent’ in the third to seventh categories. The second semantic category ‘Confident’ seems to be at odds with most of the negative semantic categories, and this will be further examined when the constituent words are discussed. Table 1 shows that from the eighth position, almost all the semantic categories have positive connotation, namely ‘Like (++)’, ‘Calm’, ‘Like’, ‘Happy’, ‘Content’, ‘Liking’, and ‘Bravery’.

In order to better understand the contextual meanings of the semantic categories, the most frequent words (up to twenty most frequent words) specific to each semantic category are shown in Table 2.

Table 2: Semantic categories and words of ‘Emotion’ in the BNPPC

| Semantic category | Up to 20 most frequent words |
|---|---|
| Worry | <i>tensions, stress, concern, concerns, concerned, worried, distress, under pressure, distressed, worrying, troubles, worries, worry, nervous, unbalanced, trouble, stressed, tension, anxiety</i> |
| Confident | <i>confidence, confident, reassure, reassuring, hawkish, reassured, trust, faith, reassuringly, reassures, reassurances, reassurance</i> |
| Violent/Angry | <i>hit, turmoil, threat, disturbances, force, in a mood, aggressive, threatened, hitting, toxic, riots, threaten, fierce, unrest, rampant, threatening, aggressively, disturbance, violent</i> |
| Fear/Shock | <i>shock, fears, shocks, alarming, fear, feared, quake, alarm, timid, afraid, panic, fearing, pent-up, formidable, alarmed, daunting, fear shortages, dazed, panicked, shied</i> |
| Emotional Actions, States And Processes General | <i>sentiment, tone, mood, morale, emotional</i> |
| Sad | <i>suffered, depressed, suffer suffering, suffers, depress, devastated, depressing, depression, cry, woes, tragic, tragedy, regret, in a state, traumatic, put a damper on, languishing, grim, depressive</i> |
| Discontent | <i>disappointing, discontent, disappointed, disappointment, frustration, unsatisfied, discontents, frustrations, disillusionment, disappoint, disappointments</i> |
| Like (++) | <i>preferred, favoured, prefer, favour, favouring, bias, preferential, preferable, favours, preference, prefers, preferences, preferring, preferably, biases</i> |

| Semantic category | Up to 20 most frequent words |
|-------------------|---|
| Calm | <i>loosening, respite, dovish, calm, unwinding, calmed down, cool down, tame, relaxed, relaxation, relax, gentle, cooling down, cooled down, comforting, calming, calm down, winding down, take the heat out of</i> |
| Like | <i>popular, enjoyed, enjoy, going for, keen on, precious, go for, enjoying, soft spot, popularity, goes for</i> |
| Happy | <i>upbeat, high, relief, euphoric, fun, happy, looking upbeat, celebrated, funny, rejoice, jubilantly, in a good mood, cheeriness, cheered up, celebration, celebrates, celebrate</i> |
| Content | <i>satisfy, satisfying, please, satisfied, fulfilling, thankfully, satisfaction, pleases, fulfilled, content, complacency</i> |
| Dislike | <i>unpopular, objections, disapproval, hate, anathema, disapproves, objection, tolerating, tolerated</i> |
| Liking | <i>tolerate, tolerating, tolerated</i> |
| Bravery | <i>dares, boldness, face up to, boldly</i> |

The words that express the semantic preference (Sinclair, 1996) of ‘Worry’ are nouns and adjectives (e.g., *tensions, stress, distress, trouble, anxiety*), followed by ‘Violent/Angry’ (e.g., *hit, turmoil, threat, disturbances*, etc.) and ‘Fear/Shock’ (e.g., *shock, fears, alarming, fear, quake*, etc.). The words that express ‘Confident’ are rather different; they include *confidence, reassure, reassuring, trust, and faith*. On the whole, the types, and frequencies, of words in positive semantic categories are much more than those in other categories. The other semantic categories of emotion include ‘Fear/Shock’, ‘Emotional Actions, States And Processes General’, ‘Sad’, ‘Like’, ‘Happy’, and ‘Calm’.

- Metaphors

Following MIP, the study then identifies words in the most frequent semantic categories that carry metaphorical senses, by studying the words in KWIC (Key Word in Context). As an illustration, metaphors that are mapped onto the target domain of CONFIDENCE are presented in Table 3. The noun confidence is selected for metaphor analysis as confidence tops the word list in the semantic category of ‘Confidence’, which occurs among the intensely negative categories.

Table 3: Metaphors mapped onto the target domain CONFIDENCE

| Source domain | Metaphors in BNPPC |
|---------------|--|
| CONTRACTION | <i>erode confidence (23), eroding confidence (2), confidence erode (7), erosion of confidence (7),</i> |
| LEVEL | <i>confidence falls (11), confidence is falling (3), heighten confidence (2)</i> |

| Source domain | Metaphors in BNPPC |
|--------------------|---|
| BUILDING | confidence keep on building up |
| MOVEMENT | confidence is shaking |
| DIVISION | confidence is fragile |
| HUMAN | hurt confidence, confidence is on the mend |
| PLANT | confidence is growing, growing confidence |
| WATER | confidence evaporates, confidence spill-overs |
| Relative frequency | 0.012% |

Table 3 shows that a great variety of source domains are mapped onto CONFIDENCE in the BNPPC, with 64 instances of confidence in metaphorical use. The high frequency of metaphors is probably because confidence is regarded as essential in the corporate culture of the BNPP. As the CEO Jean-Laurent Bonnafé² points out, trust is especially important in the relationship between a bank and its customers. Hence, it is necessary for the bank to boost customer confidence especially during a financial and economic crisis. This observation is also revealed in the BNPP's annual report 2011 (p. 8):

To win back public opinion, it is crucial for us to fulfill our economic role as bankers and also to help people to understand that we can be a profitable bank, while also displaying good ethics and a strong sense of responsibility, in tune with the social challenges of our times.

In the BNPPC, the word *confidence* tends to be associated with the CONTRACTION metaphor *erode* (CONFIDENCE IS CONTRACTION), indicating the slow decrease of investors' confidence. Confidence is also hyperbolically described by the WATER metaphors *evaporates* and *spill over*, exaggerating the weakening or the gaining of investor confidence. The confidence of investors worsened because of European debt crisis and other negative feelings, as manifested in the linguistic expressions, such as *pressures*, *high uncertainty*, and *financial market tensions*. This finding supports Oster's (2010) view that emotion words tend to cluster together. As commented by *International Business Times*, uncertainty is "still the dominant emotion among traders with regards the European situation" as the rating changes announced by Standard & Poor's depends on the results of discussions in the European Council Meeting (8 December 2011).

While confidence can erode and fall, a few metaphors in the BNPPC show growing confidence. Also shown in Table 3, confidence is conceptualized with LEVEL, BUILDING, and PLANT metaphors, as in *heighten*, *building up*, and *growing*. The BNPP emphasizes

the efficiency of evaluating new situations, making decisions, and taking action. It also encourages commitment to the service of clients and collective accomplishment³, hence the metaphors describing investors' confidence have the semantic prosody of 'regained'. These kinds of metaphors may also have a positive impact on the bank customers, encouraging them to engage more in market activities, and thus enhancing the trust between the bank and customers.

Conclusions

In analyzing the financial analyst reports of the BNPP, this study has revealed the recurrence of particular types of emotions, how the conceptualizations of emotion words reflect the market turbulence in 2011, and how the reports link to the news reporting of global economy. The study concludes that metaphors can help to portray emotions in the financial analyst reports. It also concludes that the corporate culture, often revealed in the statements of missions and core values and corporate annual reports, can also be reflected in the use of metaphors in one of their important genres: the financial analyst report.

Further insights can be gained when the metaphors in the BNPPC are examined in the KWIC to find out the semantic preferences and semantic prosodies associated with the metaphors in order to more fully describe the extended units of meaning (Sinclair, 1996) of the metaphors. In addition, the financial reports of two or more banks with different cultural backgrounds and at different points of time can be examined using corpus linguistic methods. Such comparative studies will contribute to culture-sensitive understanding of the kinds of, and how and when, metaphors are used by financial institutes in the discursive presentation of economic and investment content and the strategic deployment of expert discursive resources to achieve personal, organisational, institutional, professional, and socio-cultural goals.

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³ For a lengthy exploration of definitions of genre, see Johns, 2008.

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