A corpus-based analysis of conceptual love metaphors
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Abstract
This paper investigates the validity of English conceptual love metaphors identified by means of introspective method in two large corpora — BNC and COCA. 179 linguistic manifestations of 22 conceptual love metaphors commonly cited in the literature are gathered (Lakoff and Johnson 1980; Kövecses 1988). Following metaphorical pattern analysis (Stefanowitsch 2006), 97 metaphorical patterns that contain both source and target domain lexical items of romantic love are identified as search items. In most cases, search results for these metaphorical patterns in the corpora confirmed the findings of the introspective data. The queries also frequently returned no hits for metaphorical patterns representing the romantic love. Overall, the study showed that the two corpora of English differ from each other in relative frequencies of various instantiations of metaphorical patterns that conceptualize romantic love.

1. Introduction
Conceptual Metaphor Theory (Lakoff and Johnson 1980) argues that metaphors are fundamentally conceptual in nature; metaphorical language is secondary. Metaphors are maps from a concrete source domain to an abstract target domain at the conceptual level. The target domain is understood by the logic of the source domain, and it highlights the different aspects of the target domain. For instance, for the emotion concept of LOVE intensity of love is emphasized in LOVE IS FIRE metaphor. Metaphorical linguistic expressions are words, phrases, sentences or idioms, and they form the conventionalized, everyday metaphors. For example, the expression burning with love is conceptualizing the emotion LOVE as FIRE.

Corpus-based conceptual metaphor studies have underscored the significant impact of authentic data analysis on the theoretical development of the conceptual metaphor theory (Charteris-Black 2004; Deignan 2005, 2008b, 2009; Stefanowitsch and Gries 2006). In this context, in recent years, most of the linguistic metaphors constituting the conceptual metaphors identified by Lakoff and Johnson (1980) have been subjected to corpus-based analyses (Stefanowitsch 2006; Deignan 2008a among others). In this study, we focus on metaphors of romantic love in English and we argue that 25 source domains identified by Kövecses (1988) in the conceptualization of romantic love display differences in British and American English. The aim of this paper is twofold: First, we check conceptual love metaphors identified via introspective data in two large corpora — British National Corpus with BNCweb interface (BNC) and Corpus of Contemporary American English (COCA). We analyse how corpus data confirm the metaphorical patterns proposed in the introspective data; Second, we provide further data and discussions for the conceptual metaphor variation over two corpora.

This paper is organized as follows. First we describe the method employed to derive the data from two large corpora. We explain briefly the metaphorical pattern analysis utilized in checking the conceptual love metaphors determined by means of introspective method. Then, we present the corpus-based data findings on the basis of the missing metaphorical patterns identified in the BNC and COCA. In this part, we conduct quantitative and qualitative analyses of metaphorical patterns representing the force-related and relationship-related source domains of romantic love. We note some possible reasons of missing metaphorical patterns observed in the BNC and COCA, and argue the metaphor variations identified in two varieties of English.
2. Method and Data
Researchers access corpora via word forms. Given that conceptual mappings are not individual word forms, the search in a corpus is not an automatic process. The method proposed in Stefanowitsch (2006) brings a partial solution to the problem. In his approach, a corpus is accessed not by individual word forms but rather what he calls via a metaphorical pattern which “is a multi-word expression from a given source domain (SD) into which one or more specific lexical item from a given target domain (TD) have been inserted” Stefanowitsch (2006:66).

In this study, the metaphorical expressions that contain both source and target domain lexemes are used in the identification of metaphors. Our aim is not to identify metaphors of love, nor to find out possible other metaphors via these metaphorical patterns. Here, we simply list some of the metaphorical patterns emerging from the well-cited linguistic expressions of the conceptual love metaphors against the corpora. What is actually searched in the corpora is not the particular lexemes but the patterns themselves.

We have collected instantiations of 22 different conceptual love metaphors from Kövecses (1986, 1988, 2000) and Lakoff and Johnson (1980). These metaphors were further classified into two broad classes on the basis of their source-domain orientations:

(i) Force-related source domains
FIRE, INSANITY, RAPTURE, MAGIC, NATURAL / PHYSICAL FORCE, FLUID IN A CONTAINER, NUTRIENT, PATIENT, DISEASE, WAR, HUNTING, OPPONENT are the force-related source domains identified using the introspective method. Intensity of love’s force, loss of control under the force of love or resistance of love’s force are some of the main themes of the force-related source domains used frequently in conceptualising love.

(ii) Relationship-related source domains
Relationship-related source domains involve UNITY OF PARTS, BOND, JOURNEY, ECONOMIC EXCHANGE, STRUCTURED OBJECT, HIDDEN OBJECT, SPORT/GAME, LIVING ORGANISM. They emphasize the construction/creation, unity, and progress in a romantic relationship.

179 linguistic manifestations of 22 conceptual love metaphors commonly cited in the relevant literature were gathered. Following Stefanowitsch (2006), these 179 instantiations were analyzed in terms of source and/or target domain lexical items. 97 manifestations that contain both source and target domain lexical items were identified as metaphorical patterns. The target domain lexemes that constitute metaphorical patterns are classified into 3 categories. The first category refers to the emotion via lexical items like love, warm feelings, affection, and romance. The lexemes in the second category commonly refer to the mode of partnership in romantic love: relationship, marriage, affair, romantic ties. The lexemes in the final group make metonymic references to the target domain: heart, heartache, heat-sick are predominantly force-related metaphors which can be categorised under the master metaphor EMOTION IS FORCE.

Followings are some samples from the metaphorical patterns we searched in the corpora. The bold written items are representing target domain lexemes; the italicized items are lexemes of source domains:

(1) She was seized by love.
(2) Warm feelings welled up inside him.
(3) They created a lasting relationship.
(4) I’m heart-sick.
(5) We’re as one.
(6) He was enchanted.

While it is easy to identify romantic love relationship in examples 1 to 4, it becomes less clear in 5 and 6. Expressions such as we’re as one or he was enchanted are too general that they may be used to express any type of emotion or attachment, like friendship or happiness. We discuss the effect of such patterning in the discussion part of the paper.

3. Findings and Discussion

3.1. Missing Metaphorical Patterns in the BNC and COCA

Out of 22 conceptual metaphors searched on the corpus via their respective metaphorical patterns, we found no instantiations of 10 patterns of 7 different mappings (Table 1). This is something expected as similar other cases are reported in a number of corpus based metaphor studies (Stefanowitsch 2006). The metaphorical pattern analysis has implications here. For example, we would expect that if a metaphorical pattern contains both source and target domain lexemes, it may even be used to identify a conceptual metaphor. What we would not expect is that a metaphorical pattern containing items from the both domains returns no linguistic instantiation of a mapping. This is what happens in both of the corpora. For instance, all three linguistic expressions of HIGH/RAPTURE mapping contain both source and target domain lexeme (drunk with love, high on love, euphoric with love) yet they did not return any hits.

<table>
<thead>
<tr>
<th>Conceptual Metaphor</th>
<th>BNC</th>
<th>COCA</th>
</tr>
</thead>
<tbody>
<tr>
<td>STRUCTURED OBJECT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>create relationship</td>
<td>32</td>
<td>0</td>
</tr>
<tr>
<td>WAR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>gain ground with him/her</td>
<td>71</td>
<td>0</td>
</tr>
<tr>
<td>PATIENT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>relationship in good shape</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>UNITY</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(we) as one</td>
<td>31</td>
<td>0</td>
</tr>
<tr>
<td>BOND</td>
<td></td>
<td></td>
</tr>
<tr>
<td>close tie(s) between</td>
<td>14</td>
<td>0</td>
</tr>
<tr>
<td>NATURAL FORCE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>carry away by love</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>immerse in love</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>HIGH/RAPTURE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>high on love</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>drunk with love</td>
<td>28</td>
<td>0</td>
</tr>
<tr>
<td>euphoric with love</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

Table 1. Missing metaphorical patterns in both corpora

As our analysis is carried over two different corpora, we found out cases in which a particular metaphorical pattern is found in one but missing in the other. Tables (2), (3) summarize the search results. In the BNC, 27 metaphorical patterns of 15 (9 force-related and 6 relationship-related) conceptual metaphors are missing. In the COCA, on the other hand, 1 metaphorical pattern of 1 (force-related) conceptual metaphor is missing.
<table>
<thead>
<tr>
<th>OPPONENT</th>
<th>BNC</th>
<th>COCA</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>fight (feelings) of love</td>
<td>13</td>
<td>0</td>
<td>72.22</td>
</tr>
<tr>
<td>overcome by love</td>
<td>1</td>
<td>0</td>
<td>66.66</td>
</tr>
<tr>
<td>struggle with (feelings) of love</td>
<td>1</td>
<td>0</td>
<td>20.93</td>
</tr>
<tr>
<td>ECONOMIC EXCHANGE</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>invest in relationship</td>
<td>8</td>
<td>0</td>
<td>7.31</td>
</tr>
<tr>
<td>get X out of relationship</td>
<td>0</td>
<td>0</td>
<td>94.73</td>
</tr>
<tr>
<td>LIVING ORGANISM</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>flourish relationship</td>
<td>3</td>
<td>0</td>
<td>28.57</td>
</tr>
<tr>
<td>cultivate love</td>
<td>2</td>
<td>0</td>
<td>5.88</td>
</tr>
<tr>
<td>nurture love</td>
<td>3</td>
<td>0</td>
<td>12.79</td>
</tr>
<tr>
<td>PATIENT</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>sick relationship</td>
<td>0</td>
<td>0</td>
<td>60.00</td>
</tr>
<tr>
<td>healthy marriage</td>
<td>0</td>
<td>0</td>
<td>87.50</td>
</tr>
<tr>
<td>tired affair</td>
<td>0</td>
<td>0</td>
<td>50.00</td>
</tr>
<tr>
<td>UNITY OF PARTS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>fuse together</td>
<td>36</td>
<td>0</td>
<td>4.68</td>
</tr>
<tr>
<td>match each other</td>
<td>0</td>
<td>0</td>
<td>5.12</td>
</tr>
<tr>
<td>BOND</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>romantic tie(s) between</td>
<td>0</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>PHYSICAL FORCE</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>magnetically drawn</td>
<td>0</td>
<td>0</td>
<td>60.00</td>
</tr>
<tr>
<td>gravitate each other</td>
<td>75</td>
<td>0</td>
<td>28.57</td>
</tr>
<tr>
<td>HUNTING AND FISHING</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>snare him/her</td>
<td>7</td>
<td>0</td>
<td>4.76</td>
</tr>
<tr>
<td>CONTAINER/FLUID</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>warm feelings well up</td>
<td>16</td>
<td>0</td>
<td>1.81</td>
</tr>
<tr>
<td>NATURAL FORCE</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>engulf by love</td>
<td>1</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>WAR</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>win out</td>
<td>75</td>
<td>0</td>
<td>1.91</td>
</tr>
<tr>
<td>JOURNEY</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>bumpy road</td>
<td>4</td>
<td>0</td>
<td>6.78</td>
</tr>
<tr>
<td>relationship dead-end street(s)</td>
<td>2</td>
<td>0</td>
<td>7.93</td>
</tr>
<tr>
<td>FIRE</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>kindled love</td>
<td>2</td>
<td>0</td>
<td>25.00</td>
</tr>
<tr>
<td>SPORT/GAME</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>get first base with</td>
<td>2</td>
<td>0</td>
<td>25.00</td>
</tr>
<tr>
<td>NUTRIENT</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>starve for love</td>
<td>0</td>
<td>0</td>
<td>15.38</td>
</tr>
<tr>
<td>hunger for love</td>
<td>1</td>
<td>0</td>
<td>15.78</td>
</tr>
</tbody>
</table>

Table 2. Missing metaphorical patterns in the BNC

<table>
<thead>
<tr>
<th>NATURAL FORCE</th>
<th>BNC</th>
<th>COCA</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>sweep away by love</td>
<td>2</td>
<td>2</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 3. Missing metaphorical patterns in the COCA
These results are significant as they show us preferences in using particular source domains in the mappings. Obviously, we cannot simply conclude that these linguistic expressions are not instantiations of the conceptual mappings. We can, however, conclude that the corpora in question and their respective varieties of English may differ. Furthermore, we can argue whether or not these linguistic manifestations are appropriate patterns as well as the role of the size of the corpora.

3.2. Force-related Source Domains: Missing Metaphorical Patterns in the BNC and COCA

We present our findings on the data from the perspective of data derived from BNC. We list 13 mappings of the force-related source domains and their respective metaphorical patterns from the least occurring to the most common occurrences.

<table>
<thead>
<tr>
<th>Source Domain</th>
<th>BNC No of Occur.</th>
<th>BNC RomLove</th>
<th>BNC %</th>
<th>COCA No of Occur.</th>
<th>COCA RomLove</th>
<th>COCA %</th>
</tr>
</thead>
<tbody>
<tr>
<td>sick relationship</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>5</td>
<td>2</td>
<td>60.00</td>
</tr>
<tr>
<td>healthy marriage</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>40</td>
<td>10</td>
<td>87.50</td>
</tr>
<tr>
<td>relationship in good shape</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>tired affair</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>6</td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>52</td>
<td>38</td>
<td>0</td>
</tr>
</tbody>
</table>

Table 4. Frequency of the source domain PATIENT in the BNC and COCA

In four of the metaphorical patterns in the PATIENT metaphor, the target domain lexeme is not love but lexemes related to the romantic relationship. Here, COCA also returns small number of metaphorical mappings. We may argue that the lexeme relationship as used here in the pattern seems representing its own target domain more than the abstract emotion love. This observation seems to hold for the results of other metaphorical patterns in the data that contain relationship as a target domain lexeme. The metaphorical pattern sick relationship for instance, may apply other forms of relationship besides romantic relationship and its patterning with source domain lexeme sick can be mapped onto any other type of relationship (e.g. friendship). Of these 4 expressions, two (sick and tired) are negatively evaluated and good shape and healthy are positively evaluated. We conceptualise PATIENT with negatively evaluated term so healthy and good shape and their patterns may not be fitting properly to the PATIENT mapping. As opposed to introspective data, corpus data suggest that either there is no PATIENT mapping or even if there is such a mapping, it is to be found by means of other metaphorical patterns.

On the other side of the quantificational data, the same source domain item sick, when patterns with target domain lexeme love as opposed to relationship, both corpora returned high number of hits instantiating romantic love thus make the mapping more transparent (e.g. love-sick and sick with love) (see Table 5). Similarly, in the mapping DISEASE/ILLNESS, two other metaphorical patterns, heart-sick and heartache metonymically represent target domain also returned results in the corpora. While heartache and heart sick appear to be more productive due to being conventionalized items, heart-sick and sick with love are less productive. It appears that there is DISEASE mapping but no PATIENT mapping. The PATIENT mapping can be subsumed under the DISEASE mapping. Both corpora confirm this observation.
Table 5. Frequency of the source domain DISEASE/ILLNESS in the BNC and COCA

All three metaphorical patterns of LOVE IS A NUTRIENT mapping returned only one romantic love metaphor expression (Table 6). In all three target domain lexemes love is present yet as the results show, this is insufficient. The problem with these expressions must be related to the source domain lexemes. In these patterns, the verbs hunger and starve refer to extreme lacking/necessity of something. When combined with their complements (e.g., money) these words do no express ordinary needs but rather life-threatening cases (cf. need for love vs. starve for love). Given that romantic love is not needed so desperately in ordinary cases, the patterns with these verbs are not proper choices for this conceptual mapping. We should note that the adjectival love-starved is a fixed expression as the number of occurrences of the pattern and its mapping are the same. All occurrences represent romantic love metaphors and nothing else in both BNC and COCA.

Table 6. Frequency of the source domain NUTRIENT in the BNC and COCA

The metaphorical patterning of the OPPONENT mapping in the BNC returns 19 occurrences out of which only 2 conceptualise romantic love in terms of an opponent. Three manifestations of the OPPONENT metaphor returned no hits in the BNC: fight/overcome/struggle+love. All five patterns contain the target domain lexeme love and while it is possible to say that collocates derived from the introspective data appear to be not preferred by British English speakers, this particular conceptualization is well adopted by American English speakers. Of the five verbs forming a pattern with fight and struggle refer to active emotional involvement of lover; the remaining three – overcome by, seized by and surrender – portray lover as passive and helpless against the powerful opponent, the emotion love. For metaphor variation studies, the source domain OPPONENT seems to be a potential domain of research.
Table 7. Frequency of the source domain OPPONENT in the BNC and COCA

The WAR metaphors focus on the outcome of war, mostly often spoils of the war. There is no target lexeme in the WAR metaphors. Emotion as target is implied via pronouns (her, she: the parties in the war; the beloved). The OPPONENT metaphors, on the other hand, emphasize the process of facing to the opponent.

Table 8. Frequency of the source domain WAR in the BNC and COCA

In LOVE IS FIRE metaphor, three of the metaphorical patterns contain the target lexeme, one of them metonymically refers to it. All four expressions conceptualise the lover as one who is affected by the force of love. The metonymical expression heart on fire embodies the emotion. Since it is a conventionalized expression, all its occurrences represent romantic love metaphor. The FIRE mapping is more productive with these patterns in the COCA than in the BNC. We think that the source domain FIRE is another potential domain for metaphor variation studies.

Table 9. Frequency of the source domain FIRE in the BNC and COCA

All three patterns instantiating the PHYSICAL FORCE metaphor do not contain target domain lexeme. If love is the target domain for these metaphorical patterns, it is only implied via parties affected by the physical force (Table 10). The source domain of NATURAL FORCE also returns from the corpora with very small number of hits (Table 11). If we leave out the
metaphorical pattern *whirlwind romance* that represents 100% matches in both corpora, the remaining patterns that all contain the target lexeme *love*, all return zero hits but *swept by love* (two hits). Similar conclusions hold for the COCA as well.

<table>
<thead>
<tr>
<th>No of Occur.</th>
<th>RomLove</th>
<th>%</th>
<th>No of Occur.</th>
<th>RomLove</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PHYSICAL FORCE</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>electricity between</td>
<td>4</td>
<td>4</td>
<td>100</td>
<td>16</td>
<td>3</td>
</tr>
<tr>
<td>gravitate each other</td>
<td>75</td>
<td>0</td>
<td>0</td>
<td>7</td>
<td>2</td>
</tr>
<tr>
<td>magnetically drawn</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>79</td>
<td>4</td>
<td>5.06</td>
<td>28</td>
<td>8</td>
</tr>
</tbody>
</table>

Table 10. Frequency of the source domain PHYSICAL FORCE in the BNC and COCA

<table>
<thead>
<tr>
<th>No of Occur.</th>
<th>RomLove</th>
<th>%</th>
<th>No of Occur.</th>
<th>RomLove</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NATURAL FORCE</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>sweep away by love</td>
<td>2</td>
<td>2</td>
<td>100</td>
<td>26</td>
<td>0</td>
</tr>
<tr>
<td>carry away by love</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>48</td>
<td>0</td>
</tr>
<tr>
<td>engulf by love</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>immerse in love</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>7</td>
<td>0</td>
</tr>
<tr>
<td>whirlwind romance</td>
<td>12</td>
<td>12</td>
<td>100</td>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td>Total</td>
<td>15</td>
<td>14</td>
<td>93.33</td>
<td>113</td>
<td>32</td>
</tr>
</tbody>
</table>

Table 11. Frequency of the source domain NATURAL FORCE in the BNC and COCA

When all the three mappings of FIRE, PHYSICAL FORCE and NATURAL FORCE are analyzed together, an overall conclusion may be that speakers of English do not conceptualise themselves as passive experiencers of the force of love. They do not yield to the forces of emotion of love.

In connection with these metaphors of FORCE, when there is a SOCIAL SUPERIOR rather than a NATURAL or PHYSICAL FORCE, as the corpus data show, individuals do not prefer be ruled or controlled by a superior which is *love*. The only two metaphorical patterns of this mapping include the target lexeme *love* (Table 12). In line with the same reasoning, in the MAGIC mapping all three metaphorical mappings portray individual as affected by the forces of the MAGIC. The relatively higher frequencies of the occurrence observed in this mapping is due to the relative higher frequencies of pattern occurrence.

<table>
<thead>
<tr>
<th>No of Occur.</th>
<th>RomLove</th>
<th>%</th>
<th>No of Occur.</th>
<th>RomLove</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SOCIAL SUPERIOR</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>love control over</td>
<td>4</td>
<td>1</td>
<td>25.00</td>
<td>70</td>
<td>11</td>
</tr>
<tr>
<td>rule by love</td>
<td>6</td>
<td>3</td>
<td>50.00</td>
<td>65</td>
<td>14</td>
</tr>
<tr>
<td>Total</td>
<td>10</td>
<td>4</td>
<td>40.00</td>
<td>135</td>
<td>25</td>
</tr>
</tbody>
</table>

Table 12. Frequency of the source domain SOCIAL SUPERIOR in the BNC and COCA
Table 13. Frequency of the source domain MAGIC in the BNC and COCA

We observe that manifestations representing HIGH/RAPTURE source domain outnumber the other source domains. Both target and source domain items are contained in these linguistic expressions. Hence, we cannot say that such collocations (euphoric/drunken/high (on) with love) do not exist in both corpora due to the missing lexical units or collocations constitute source or target domains. These expressions particularly target not the emotion itself but its intensity. The most obvious difference between two corpora is observed in besotted with love. The conceptualization with these instantiations takes the self as ‘out of control’, and the emphasis appears to be not on the emotion itself but rather the intensity of the emotion and the current state of the lover.

Table 14. Frequency of the source domain HIGH/RAPTURE in the BNC and COCA

The INSANITY and CONTAINER metaphorical patterns are also emphasizing emotional intensity as in the HIGH metaphor, but this time intensity is evaluated positively. The instantiations of INSANITY also do not pattern with target domain lexeme. The connection is established via pronouns representing self as the target of the emotion (e.g., crazy about her, wild about him/her). In the INSANITY instantiations, the excessiveness expressed by crazy about / wild about / go mad, expressions commonly expected to be evaluated negatively, but in the context of romantic love they convey positive evaluation, and they are demanded manifestations.

Table 15. Frequency of the source domain INSANITY in the BNC and COCA
In the CONTAINER instantiations, 3 of the 5 patterns contain the target emotion lexeme *love* and the remaining two *affection* and *warm feelings*. *Well up warm feelings* returns no hits in the BNC and only one in the COCA. Similarly, *overflow with love* is represented in the data with low frequency of occurrences (15/1; 123/2), whereas *filled with love* and *full of love* are represented in the corpora with the highest frequency. Here again, embodied and excessive force of emotion is conceived positively.

<table>
<thead>
<tr>
<th>CONTAINER/FLUID</th>
<th>BNC</th>
<th></th>
<th>COCA</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No of Occur.</td>
<td>RomLove</td>
<td>%</td>
<td>No of Occur.</td>
</tr>
<tr>
<td>filled with love</td>
<td>3</td>
<td>3</td>
<td>100</td>
<td>57</td>
</tr>
<tr>
<td>full of love</td>
<td>24</td>
<td>9</td>
<td>37.50</td>
<td>88</td>
</tr>
<tr>
<td>overflow with love</td>
<td>1</td>
<td>1</td>
<td>100</td>
<td>3</td>
</tr>
<tr>
<td>pour out affections</td>
<td>5</td>
<td>2</td>
<td>40.00</td>
<td>14</td>
</tr>
<tr>
<td>warm feelings well up</td>
<td>16</td>
<td>0</td>
<td>0</td>
<td>55</td>
</tr>
<tr>
<td>Total</td>
<td>49</td>
<td>15</td>
<td>30.61</td>
<td>217</td>
</tr>
</tbody>
</table>

**Table 16.** Frequency of the source domains CONTAINER/FLUID in the BNC and COCA

The final mappings of the force related source domains HUNTING / FISHING presumed as a sub-case of the WAR mapping also do not contain target items. The verbs in the source domains *chase, snare* pattern with *girls* and *him/her* as instantiations of the mapping. For *snare him/her*, BNC returns no hits for *romantic love* whereas COCA returns only two instantiations of romantic love out of 42 occurrences. *Good catch* is relatively more frequent in both corpora.

<table>
<thead>
<tr>
<th>HUNTING/FISHING</th>
<th>BNC</th>
<th></th>
<th>COCA</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No of Occur.</td>
<td>RomLove</td>
<td>%</td>
<td>No of Occur.</td>
</tr>
<tr>
<td>chase girl(s)</td>
<td>10</td>
<td>4</td>
<td>40.00</td>
<td>36</td>
</tr>
<tr>
<td>snare him/her</td>
<td>7</td>
<td>0</td>
<td>0</td>
<td>42</td>
</tr>
<tr>
<td>good catch</td>
<td>18</td>
<td>7</td>
<td>38.88</td>
<td>52</td>
</tr>
<tr>
<td>Total</td>
<td>35</td>
<td>11</td>
<td>31.42</td>
<td>130</td>
</tr>
</tbody>
</table>

**Table 17.** Frequency of the source domains HUNTING/FISHING in the BNC and COCA

### 3.3. Relationship-related Source Domains: Missing Metaphorical Patterns in the BNC and COCA

In the BOND mapping, the metaphorical patterns formed via *attachment to* and *close ties* do not include target domain lexemes. The emotion *love* is implied via pronouns. The only realization with the target domain lexeme *romantic ties* returns no hits in the BNC, and returns 4 out of 4 hits in the COCA. In terms of the results derived from the data, the low frequencies of *attachment to him/her* metaphorical pattern in both corpora may signal the fact that English speakers do not conceptualise romantic love as a bond. In line with Baxter’s (1992) research, lovers may see their selves in danger under such a commitment. The corpus data seem to confirm the social psychological research of Baxter.

<table>
<thead>
<tr>
<th>BOND</th>
<th>BNC</th>
<th></th>
<th>COCA</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No of Occur.</td>
<td>RomLove</td>
<td>%</td>
<td>No of Occur.</td>
</tr>
<tr>
<td>attachment to him/her</td>
<td>11</td>
<td>2</td>
<td>18.18</td>
<td>84</td>
</tr>
</tbody>
</table>
Table 18. Frequency of the source domain BOND in the BNC and COCA

<table>
<thead>
<tr>
<th></th>
<th>BNC</th>
<th>COCA</th>
</tr>
</thead>
<tbody>
<tr>
<td>close tie(s) between</td>
<td>14</td>
<td>0</td>
</tr>
<tr>
<td>romantic tie(s) between</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>25</td>
<td>2</td>
</tr>
</tbody>
</table>

Table 19. Frequency of the source domain UNITY OF PARTS in the BNC and COCA

<table>
<thead>
<tr>
<th></th>
<th>BNC</th>
<th>COCA</th>
</tr>
</thead>
<tbody>
<tr>
<td>(we) as one</td>
<td>31</td>
<td>0</td>
</tr>
<tr>
<td>belong together</td>
<td>31</td>
<td>4</td>
</tr>
<tr>
<td>fuse together</td>
<td>36</td>
<td>0</td>
</tr>
<tr>
<td>match each other</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>perfect match</td>
<td>45</td>
<td>5</td>
</tr>
<tr>
<td>better half</td>
<td>11</td>
<td>5</td>
</tr>
<tr>
<td>made for each other</td>
<td>15</td>
<td>9</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>169</td>
<td>23</td>
</tr>
</tbody>
</table>

Missing metaphorical pattern, create relationship represents the STRUCTURED OBJECT metaphor. When we look at the four other linguistic manifestations of the same metaphor we searched in corpora, we see that the emphasis is not on the emotion itself but rather partnership established between the couples in question. These 4 collocates can also be clustered into 2 subtypes: those that refer to the process of structuring, create/form relationship and those refer to the current state or preservation of the partnership that has been already structured, work relationship, maintain relationship. In terms of the results derived from corpora, we observe that users of English tend to emphasize the state of already structured object rather than the process of structuring the object. This is another potential area for comparative conceptual metaphor study based on a corpus analysis. Such analysis can shed light to intra- and inter-language metaphor variety. Significant in the instantiation of this mapping is that the number of occurrences returned in both corpora outnumber all the others (BNC: 475; COCA: 1913) yet representing relatively low number of romantic love mappings. This indicates that when the verb of source domain patterns with the target domain lexeme relationship the resulting pattern is either less metaphorical or may be used to conceptualise other abstract domains.
Table 20. Frequency of the source domain STRUCTURED OBJECT in the BNC and COCA

The linguistic expressions of ECONOMIC EXCHANGE employ both relationship and love as target domain items. Just like receive love and give love, invest relationship and get something out of relationship are relational opposites. In the case of get something out of relationship while BNC returns no hits, in COCA 18 of the 19 occurrences manifest the mapping in question. In both corpora give love is more frequent than receive love.

When all six collocates and their respective metaphorical patterns are investigated, both corpora give similar percentages (BNC: 6.62%; COCA: 7.16%) The major difference can be summed as follows: COCA data focuses on benefit or self gain from the romantic relationship, the BNC data gives emphasis on giving/adding value to the relationship, contributing from the self to the partnership.

Table 21. Frequency of the source domain ECONOMIC EXCHANGE in the BNC and COCA

The representation of metaphorical patterns manifesting HIDDEN OBJECT mapping are almost equal in both corpora. We observe relatively higher frequencies of romantic love expressions in the number of occurrences. This may be attributed to the fact that the target domain item love is contained in all patterns formed with the source domain verbs. Other than find love, all of the four metaphorical patterns conceptualise love as desirable object, evaluated positively. Love finds you / love finds a way are frequent usages noted in the corpora which we do not discuss here.
Table 22. Frequency of the source domain HIDDEN OBJECT in the BNC and COCA

Get first base with makes use of a sport term specific to American English. It returns 2 hits in the BNC without any love metaphor reference. On the other hand, number of returns in the COCA are also very small indicating that the lexical unit get first base is not preferred as a source domain item in conceptualising love in English. Make play and play with me emphasize the non-serious side of romantic relationship. All four patterns we searched in the corpora do not contain any target domain lexeme. This means that connection is less transparent.

<table>
<thead>
<tr>
<th></th>
<th>BNC</th>
<th>COCA</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No of Occur.</td>
<td>RomLove</td>
</tr>
<tr>
<td>SPORT/GAME</td>
<td></td>
<td></td>
</tr>
<tr>
<td>make a play for</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>play hard to get</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>get first base with</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>play with me</td>
<td>22</td>
<td>6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>34</strong></td>
<td><strong>12</strong></td>
</tr>
</tbody>
</table>

Table 23. Frequency of the source domains SPORT/GAME in the BNC and COCA

The living organism metaphor makes the abstract emotion more concrete. Except flourish relationship, the remaining 4 instantiations contain the target domain lexeme love. As opposed to the COCA, flourish relationship, cultivate love and nurture love return no hits in BNC. Grow love and die love as relational opposites are represented by the highest frequencies compared to the other metaphorical patterns of this specific mapping in both corpora.

<table>
<thead>
<tr>
<th></th>
<th>BNC</th>
<th>COCA</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No of Occur.</td>
<td>RomLove</td>
</tr>
<tr>
<td>LIVING ORGANISM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>love grow</td>
<td>56</td>
<td>11</td>
</tr>
<tr>
<td>flourish relationship</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>cultivate love</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>love die</td>
<td>39</td>
<td>10</td>
</tr>
<tr>
<td>nurture love</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>103</strong></td>
<td><strong>21</strong></td>
</tr>
</tbody>
</table>

Table 24. Frequency of the source domain LIVING ORGANISM in the BNC and COCA

The instantiations of journey mapping are represented by equal percentages in both corpora. While three of the instantiations contain target domain items (relationship, marriage) the remaining metaphorical patterns signal the mapping indirectly in the absence of the target domain item. Bumpy road, and dead-end street return no hits in the BNC whereas in the case of marriage on the rocks, all occurrences are the manifestations of romantic love metaphor in both corpora.

<table>
<thead>
<tr>
<th></th>
<th>BNC</th>
<th>COCA</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No of Occur.</td>
<td>RomLove</td>
</tr>
<tr>
<td>JOURNEY</td>
<td></td>
<td></td>
</tr>
<tr>
<td>we at a crossroads</td>
<td>34</td>
<td>3</td>
</tr>
</tbody>
</table>
4. Conclusions

Metaphorical pattern analysis, based on patterning source and target domain lexemes allows us to access corpora to find instantiations of conceptual metaphors. To the extent that the aim is to find relevant manifestations of metaphorical patterns that represent the conceptual metaphors, we may say that the method works.

On the other hand, any discussion on the resulting frequencies and level of representation of metaphorical patterns in the corpora requires further analyses. For example, sophisticated statistical analyses may tell us what types of conclusions may be drawn from the figures we have presented here. We cannot tell whether out of 13,070 hits in the corpora represent 1,914 (14.85%) metaphorical patterns is sufficient or an insufficient representation.

A part of the question also concerns the representativeness of the patterns in question that are derived from introspective manifestations. In other words, a study may derive an inventory of metaphorical instantiations in the corpora that are not identified by conceptual metaphor theory, and then may compare the results derived from corpora via a simple search of already identified pattern. Since we did not conduct such a study we cannot conclusively argue that the missing metaphorical patterns are pointing to a defect in the theory since introspective data representations are not confirmed by the corpora; or that existing corpora are still small as they return no hits for seemingly natural language uses exemplified in the introspective data.

Yet to a certain level, we can say that the two corpora of English differ from each other in relative frequencies of various instantiations of conceptual love metaphors. In this study we have pointed out some of conclusions from these differences. A further detailed research may derive even more insights from the quantificational differences presented here.

References


**Appendix**
Examples of the conceptual love metaphors from BNC and COCA

**LOVE IS A PATIENT: BNC**
2008 SPOK NBC_Today That’s how you keep a healthy marriage. Don’t lunch together.
1998 SPOK NBC_Dateline She testified that long before the murder it was a sick relationship. That you were sex-crazed and violent, used a gun during sex.

**LOVE IS A DISEASE: BNC**
G0F 2445 (W:fict:prose) Suffering in love is one of the new bitter flavours he has learnt to appreciate.
EVC 780 (W:fict:prose) You’re sick with love for him, but he’d never give a plain Jane like you a second’s thought.
JY1 1423 (W:fict:prose) Oh, the dear love, thought Leith, having just realised that, heartsick for a sight of Rosemary,
A6N 2399 (W:fict:prose) After Luke and then Maggie had left for London there were still enough people to dull the heartache and emptiness but now that all the girls had gone

**LOVE IS A NUTRIENT**
2001 FIC Ploughshares I cried because I wanted our love back. I was starved for our love, for the physical and reciprocal cycles and sensations
CB8 238 His guest list is headed by Mr and Mrs Branagh — Ken as a Hollywood-based sitcom writer with a faddy Californian wife (played by Rita Rudner) and Emma Thompson as the good hearted and love-starved spinster.

**LOVE IS AN OPPONENT: COCA**
2000 FIC Esquire had given herself over to him sometime at midweek and was not even fighting the love that had taken her.
2007 FIC Mov Atonement of his remorseless wickedness, but that made it no easier to overcome the voluminous love she felt for Sir Romulus
1998 FIC ScholScope Their eyes meet. David is seized with feelings of love, and shame at having to abandon Lisa like everyone else has.

**LOVE IS FIRE**
CAE 1811 yet still capable of extreme passion. One minute soothing and seductive, the next, heart on fire.

**LOVE IS A NATURAL / PHYSICAL FORCE**
CEK 7062 In 1966 she married German playboy Gunther Sachs, following a whirlwind romance.
Their whirlwind romance lasted less than five weeks. Well, all I know is,

LOVE IS A SOCIAL SUPERIOR
2000 SPOK CNN_King wouldn't -- you think you can control falling in love? No, I think what matters more than anything are values and
I994 ACAD SocialHistory if she continued to hold him back, and she affirmed the power of love to rule as it would, despite the intentions of

LOVE IS HIGH / RAPTURE
2006 FIC FantasySciFi He must also be besotted with love for the princess; but that,
JY3 3705 ‘You’re in love with him, and I’ll lay odds he's besotted with you.
2005 FIC Triquarterly even Larry Tomsich and other pals at the club had he been so truly intoxicated with love. A glimpse of her,
H8S 1548 I gave Cherith everything except what she really wanted. I was intoxicated with her — and she played me like a fish on a line

LOVE IS A FLUID IN A CONTAINER
2002 FIC ContempFic Boy’s heart melted like ice cream in the summer. He was so completely wild about her.
2008 FIC ScholScope you how I feel. ROXANE: How do you feel? CYRANO: So full of love that I’m overflowing! Talking to you fills me with happiness.

LOVE IS A BOND
2001 Town Country You'll also find that harboring secrets will exert an undermining effect on a romantic tie, even if you do so out of a desire to protect a loved one
ADG 14 Mum begins to notice my attachment to John, the amount of hours I am spending away from home, the fact that I am growing up and away from her,

LOVE IS A STRUCTURED OBJECT: BNC
HUU 169 He now says that he does love his girlfriend, he does want to make that relationship work, and he's very hopeful of making a reconciliation.
ALM 1245 But when he had asked her to marry him, she had declined out of nothing more than pique. Since then, they had maintained their relationship — a kind of teasing familiarity

LOVE IS AN ECONOMIC EXCHANGE: COCA
2005 FIC BkGen:IfLooksCould she’d been dating for four months, hot and bothered. What did I get out of the relationship? I was totally dazzled by her,
2008 NEWS Denver at the wedding in the middle. It asks audiences to emotionally invest in a relationship it knows is doomed from the start.

LOVE IS AN ECONOMIC EXCHANGE: BCN
GWG 830She would explain, calmly and directly, that she felt there was nothing in their relationship worth preserving and she would ask him to move out straightaway

LOVE IS A HIDDEN OBJECT
007 NEWS USA Today premiering June 18. According to NBC, the 31-year-old athlete will seek “true love,” reality-style, among two groups of women
2008 ACAD Studies Novel prisoner in the underworld, and Ofeyi descends into hell to search for his lost love.