

“Green-Eyed Monsters”: a Corpus-Based Study of Metaphoric Conceptualizations of JEALOUSY and ENVY in Modern English

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Abstract

In this paper, I apply *metaphorical pattern analysis* suggested in Stefanowitsch (2006) to a British National Corpus-based study of the emotion concepts of JEALOUSY and ENVY. On identification of central conceptual metaphors of these emotion concepts, I show that although both manifest significant similarity in the source domains via which they are construed in English, their specificity in relation to each other and other emotion concepts can nevertheless be assessed with the help of a quantitative distributional analysis of the frequencies of occurrence of metaphoric expressions associated with each of the concepts under study. Furthermore, I question whether folk metaphoric conceptualizations of the English concepts of JEALOUSY and ENVY, together with three other “prototypical” social emotion concepts of SHAME, GUILT and PRIDE, are consistent with the criteria posited for differentiating them as “secondary” against the set of “basic”, or “primary” emotion concepts in English-speaking psychological literature (Ekman 1992, Ortony/Turner 1990, Parrot 2001) and discuss the implications of this consistency in the context of the role of metaphoric language in forming cultural models of emotions and influencing the English language speakers’ conjectures about emotional experiences in scientific research.

In diesem Artikel wende ich die von Stefanowitsch (2006) entwickelte *metaphorical pattern analysis* auf eine auf dem British National Corpus basierten Studie bezüglich der Gefühlskonzepte JEALOUSY ("Eifersucht") und ENVY ("Neid") an. Bei der Identifizierung der zentralen konzeptuellen Metaphern dieser Gefühlskonzepte zeige ich, dass, obwohl beide signifikante Ähnlichkeiten hinsichtlich ihrer Quellkonzepte, mittels derer sie im Englischen konstruiert werden, aufweisen, ihre Spezifität im Verhältnis zueinander und zu anderen Gefühlskonzepten dennoch festgestellt werden kann mit Hilfe einer quantitativen Distributionsanalyse der Beleghäufigkeiten der metaphorischen Ausdrücke, die mit den hier untersuchten Gefühlskonzepten verbunden sind. Darüber hinaus, gehe ich der Frage nach, ob bei "volksmetaphorischen" Konzeptualisierungen der englischen Konzepte JEALOUSY und ENVY, wie auch bei drei anderen "prototypischen" sozialen Gefühlskonzepten, SHAME ("Schande"), GUILT ("Schuld") und PRIDE ("Stolz"), tatsächlich die Kriterien zutreffen, die diese in der englischen psychologischen Fachliteratur (Ekman 1992, Ortony/Turner 1990, Parrot 2001) als "sekundär" einstufen gegenüber der Reihe "basaler" oder "primärer" Gefühlskonzepte. Ich werde diesbezügliche Implikationen im Kontext der Rolle metaphorischer Sprache beim Bilden kultureller Gefühlsmodelle diskutieren und wie diese die Einschätzungen von Englischsprechern bezüglich Gefühlserfahrungen in der wissenschaftlichen Forschung beeinflusst.

1. Introduction

In recent decades linguists, together with historians, anthropologists, sociologists, psychologists, philosophers and biologists have all been actively

studying their part of what is variously called affect, sentiment, feeling or emotion¹. Current multi-dimensional research on emotions is indeed vast and varied so that to review it all will be beyond the objectives of this paper. At this point, however, it is important to briefly introduce two major psychological paradigms in emotion studies that are relevant to the research questions raised here.

Theoretical and empirical academic research into human sentiment has, for the most part, fallen into two positions: social constructionism and naturalism. In the social constructivist perspective in emotion studies (cf. Averill 1980, Harré 1986, Lutz 1988, Armon-Jones 1986) which maintains that adult human emotions depend upon social concepts (Ratner 1989:211) and recognizes culture as a regulator of emotional displays (cf. Russel 1991, Cornelius 2000), emotions are characterized by attitudes determined by systems of cultural belief and (moral) values of particular communities (Armon-Jones 1986:33, Kleinman/Good, 1985:65). Thus, emotional experience is acknowledged as culturally-bound and emotional qualities as understandable only in terms of cultural activities and concepts (Ratner, 1997:210-213). Averill formulates the relationship between culture, consciousness, and emotions in the following way:

“(....) the emotions are viewed here as transitory social roles, or socially constituted syndromes. The social norms that help to constitute these syndromes are represented psychologically as cognitive structures or schemata. These structures - like the grammar of a language - provide the basis for the appraisal of stimuli, the organization of responses, and the monitoring of behavior” (Averill 1980:305-306).

This paradigm in emotions studies has emerged largely in response to the naturalistic, evolutionary, or biological theories of emotions in psychology that assert that “emotions are products of natural processes which are independent of social norms and conscious interpretation” (Ratner 1989:211). Since naturalism in emotion studies tends to focus on the influence of biological factors, chief emphasis is placed on the study of the so-called *primary*, or *basic*, emotions that are presumed to be equally accessible to many species other

¹ In this paper the term “emotion” will be used following the convention and tradition that emerged in English-speaking scientific literature. For the in-depth analysis of applicability of this term in cross-cultural studies see Wierzbicka (1999:25-26).

than human beings (cf. Ekman 1992, Izard 1992). Primary emotions are not only posited as commonly experienced across species, they are also supposed to be shared by all human societies and are therefore termed as universals on the grounds that they correspond to universal facial expressions² (Ekman et al. 1987). All other emotions are therefore essentially reducible to the basic ones (Plutchik 1980:8-9). Smugness, for example, is considered as a composite of two elemental emotions, happiness and anger (Ekman 1972:222), jealousy is a mixture of anger and fear (Ratner 1989:211). Although lists of basic emotions vary from scientist to scientist³, the standard list of basic emotions agreed to by most researchers includes *fear, anger, disgust, happiness/enjoyment, sadness, and surprise* (cf. Ekman 1972), known also as the *Big Six* (Cornelius 2000). All other emotions, in this view, are considered as *secondary*, or, as in a more recent Ekman's work, as *affective phenomena*, i.e. moods and emotional traits, or, alternatively, *emotional plots* (Ekman 1999). Some works reduce the number of secondary (otherwise termed in literature as *social, complex moral or intellectual*) emotions to twelve (*sympathy, embarrassment, guilt, pride, shame, admiration, gratitude, contempt, jealousy, envy, love, flirtatiousness*) (Damasio 1994) or only four (*shame, guilt, pride, envy*) as in Bennett and Matthews (2000) or Leary (2000). Since there is no well-established list of social emotions, the boundaries between what is termed by proponents of universalistic approach as "basic" and "social" are somewhat blurred, as some scientists include such emotions as *contempt* (Ekman/Friesen 1986), *shame* and *guilt* (Izard 1977), *love* (Parrot 2001, Watson 1930, Arnold 1960) into their basic emotion lists.

Despite the seeming controversy, these two scholarly paradigms, as argued in Kövecses (2000:164-181) and Wierzbicka (1999), are complementary rather than conflicting and far more reconcilable than one would think. In his most recent writings Paul Ekman, a major proponent of universalistic approach, explicitly admits to some changes in his thinking that had happened over 40

² Among other reasons that theorists give for assuming the existence of primary emotions is that: (1) some emotions appear to exist in all cultures; (2) some can be identified in higher animals; (3) some seem to increase the chances of survival (cf. Ortony and Turner 1990). For a complete list of 11 characteristics that distinguish basic emotions from one another and from other affective phenomena see Ekman (1999:53).

³ "The smallest number of basic emotions in the researchers' lists is three and the largest number is eleven, while most proposals list five to nine emotions" (Plutchik 1994:57).

years of his research into emotions (Ekman 1999). Similarly, social constructionist views have also been challenged in some publications (e.g. Sabini/Silver 1998). Following Wierzbicka (1999:63), “there is no real conflict between the view that human feelings can have a biological dimension and the view that they are socially constructed and have a cultural dimension as well as there is also no real conflict between a recognition of cross-cultural differences in the area of emotions and a recognition of similarities”. Numerous emotions have been thoroughly studied in both perspectives (see, for instance, De Silva (1999:116) for an overview of research into *jealousy* in both socio-cultural and the socio-biological perspectives).

This paper, however, shifts the focus from *what* is claimed about emotions in psychological discourse to *why* it is claimed so in view of the wider-level interaction between language and thought formulated by Whorf:

“We dissect nature along lines laid down by our native languages. (...) We cut nature up, organize it into concepts, and ascribe significances as we do, largely because we are parties to an agreement to organize it in this way—an agreement that holds throughout our speech community and is codified in the patterns of our language” (Whorf 1969:212-214).

Although emotions are inherently fluid phenomena empirically inseparable from human beings, and, for that matter, can not be “dissected”, or “cut up”, English-based scientific discourse often treats emotions as if they were objectively existing categories delimited from other categories by nature itself and allowing for being grouped into distinct sets on the basis of selected criteria. Since some of these criteria appear to be questionable or at least open to discussion (cf. overview in Section 4 of this paper), it appears challenging to ask whether some scholarly perceptions of emotions can be language-dependent.

2. Assessing Cultural Specificity of Emotions in Current Linguistic Research

The common assumption underlying the biologically-oriented taxonomies of emotions is that the world cultures possess some more or less uniform set of emotional displays that are universal in character. Natural language data, supporting the empirical findings in socio-constructivism-oriented

psychological studies (cf. Marsh et al. 2003, Sabini and Silver 2005a) suggest, however, that “universal” emotions (belonging mainly to the primary emotions lists) are in fact language-dependent culturally-specific concepts encompassing cultural beliefs, norms and conventions. Varying greatly in the number and kind of emotions they conceptualize and verbalize, world cultures seem to provide different divisions of the “emotional spectra”. Following Ratner (2000:214), some non-Western cultures have a few broad emotion concepts rather than finely differentiated Western emotion concepts⁴. For example, people in Uganda have an emotional concept that combines elements of Western anger and sadness. Samoans have one concept that spans Western hate and disgust and does not distinguish them. In the Australian language Gidjingali the same word *-gurakadj-* appears to cover, loosely speaking, both fear and shame (Hiatt 1978). Conversely, certain societies make exceedingly fine distinctions between emotions, as in the case of the Pintupi people who differentiate 15 kinds of fear. When contrasted to most European languages that are notoriously impoverished in their “love lexicons”, the verbalization of love in Arabic seem to be indeed rich and diverse, as in the poetic example below:

“Hubb” is love, “ishq” is love that entwines two people together, “shaghaf” is love that nests in the chambers of the heart, “hayam” is love that wanders the earth, “teeh” is love in which you lose yourself, “walah” is love that carries sorrow within it, “sababah” is love that exudes from your pores, “hawa” is love that shares its name with “air” and with “falling”, “gharm” is love that is willing to pay the price” (Soueif 1999:386-387).

Also, there are distinct differences in how languages categorize their emotion lexicons. For instance, Shaver and his colleagues have shown that whereas for the English, Italian, and Indonesian speakers self-conscious emotion terms (*shame, guilt, embarrassment*) are subsumed under other emotion families, for the Chinese speakers *shame*, including *guilt* and *embarrassment*, emerge as a separate group of feelings (Shaver et al. 1992, 2001). The Chinese language has 113 terms for shame (Li 2003:767) which shows the significance ascribed to it in the Chinese culture. Conversely, the highly individualistic Anglo culture

⁴ In this usage the term “Western emotions” seems to be an over-generalization from a (cultural)-linguistic point of view; this sweepingness, however, is disregarded here for illustrative purposes.

seems to treat *shame* and *embarrassment* as separate emotions and play down the importance of the former. As Scheff (2004) articulates it, the current usage of *shame* in English involves only one extremely narrow meaning: a crisis feeling of intense disgrace or a painful emotion resulting from an awareness of having done something dishonourable, unworthy, or degrading. In this usage, a clear distinction is made between *embarrassment* and *shame*. Embarrassment can happen to anyone, but shame is conceived as horrible. Wierzbicka formulates the difference between English *shame* and *embarrassment* along the lines of moral vs. social concerns of an individual:

“The two main differences between *shame* and *embarrassment* appear to have to do with what is seen as an objective basis for people’s possible disapproval in the case of *shame*, and with the ‘people here now’ aspect of *embarrassment* (one can feel *ashamed*, but not *embarrassed*, when alone). (...) The (Anglo) concept of ‘shame’ links social concerns with moral concerns, while the modern Anglo concept of ‘embarrassment’ explicitly dissociates the two. In many other cultures, no such distinction is drawn” (Wierzbicka 1999:46-47).

European languages other than English, to varying degrees, define shame more broadly. They include an everyday shame, such as *pudeur* “modesty” in French. Russian and Ukrainian translation equivalents of English embarrassment (*smuscheniye*, *zniyakovilist’*) refer rather to milder versions of shame (*styd*, *sorom*) than to a distinct emotional experience. In Spanish, for example, the same word (*verguenza*) can be used to mean either. The German language seems to be moving toward the English language model of denying everyday shame. In contemporary German, since the word for disgrace shame, stigma (*Schande*) is seen as old fashioned, the word for everyday shame (*Scham*) is being used in its place. This usage is probably making shame less speakable, as in the English language model (Scheff 2004).

In view of the attested variability in conceptualizing and verbalizing emotional experiences across cultures, the role of language in the construction of emotions has come to the forefront of modern anthropologically-oriented cultural and cognitive linguistics (cf. Gyirri 1998, Apresjan 1993, 1997; Ungerer 1995). In her large-scale comparative study of some emotion terms, Anna Wierzbicka was one of the first to document that:

“(....) every language imposes its own classification upon human emotional experiences, and English words such as *anger* or *sadness* are cultural artifacts of the English language, not culture-free analytical tools” (Wierzbicka 1992:456; 1995a:236).

This claim was further substantiated in abounding linguistic research on the cultural specificity of presumably “universal” emotions manifested by the data from various languages including English (cf. Lakoff/Kövecses 1987, Kövecses 1995a, 1995b, Stefanowitsch 2006, Ungerer 1995, Borisov 2005), German (cf. Wierzbicka 2001, Stefanowitsch 2004, Krasavskyy 2001, Butenko 2006), Polish (cf. Mikolajczuk 1998), Russian (cf. Stepanov 2001, Vorkachov 2003, Shmelev 2003, Dorofeeva 2003, Mokshina 2001), French (cf. Belaya 2006, Hout 2004), Spanish (cf. Vorkachov 1995), Zulu (Taylor/Thandi 1998), Maori (Krupa 1996), among others. These and other studies, to varying degrees of insightfulness, have demonstrated that “the way people interpret their own emotions depends, to some extent at least, on the lexical grid provided by their native language” (Wierzbicka 1999:31).

There are a few methodological approaches to assessing cultural specificity of emotion concepts in current linguistic research. In Russian linguistic tradition, emerging from classic works in semiotics and semantics (cf. Apresjan 1993, Lotman 1992, Stepanov 1997, 2001) and influenced largely by the German tradition of the philosophy of language (Humboldt, Weisgerber), on the one hand, and the Sapir-Whorf hypothesis of linguistic relativity, on the other, folk conceptualizations of emotions (as well as those of culturally marked concepts that can be lacunal in other cultures⁵) are accessed with the help of the conceptual analysis, a most influential line of research which aims to disclose the peculiarities of national mentalities by reconstructing *conceptual* and *linguistic pictures of the world*, of which selected concepts are parts⁶. In this framework, together with the toolkit of cognitive lexical semantics viewing the word meaning as mediating between conceptualization and language, the analysis of idiomatic expressions where an (emotion) lexeme participates is widely attested as one of the ways of decoding cultural dimensions of folk

⁵ As, for instance, Russian concepts of *toska*, *nadryv*, *udal'*, *avos'*, French concept of *savoir vivre*, Anglo-American concept of *privacy*, German concepts of *Angst* and *Ordnung*, and so on.

⁶ For an overview of this tradition in Poland (Entholinguistic School of Lublin) see Zinken (2004:116-120).

conceptualizations (Belova 2003). For instance, studies that analyzed the representation of the concept of love in Russian and Spanish idiomatic language have concluded that such definitional components of the Russian concept of ЛЮБОВЬ (LOVE) as its central place with regard to other concepts and its unmotivated, uncontrollable and self-sacrificing character are absent in its Spanish counterpart, AMOR (Vorkachov 1995:56-66). Another investigation suggests that the major culturally-marked implications of the Russian word ЛЮБОВЬ (LOVE) are "pity", "maximalism", "self-negation", "spirituality", "pudency", "inequality" (Veber/Lantuh 2002). The contrastive research into Russian and German concepts of ЛЮБОВЬ and LIEBE claims that common components shared by both concepts are "depth", "respect", "passion", "self-sacrifice", "intimacy", "suffering", "unpredictability". This analysis has also shown that in German the negatively-connoted aspects of love are its open manifestations and recklessness; the German model also appears to deny the mystical character of love conventionally attributed to it in the Russian culture. The Russian language, in its turn, negatively connotes flippancy, lack of modesty and irresponsibility in love (Vilms 1997:20-21). This approach, however, has somewhat limited applications in view of the prerequisite of the extensive elaboration of emotion concept in sayings, language clichés and idioms, which is not always the case with some peripheral emotion words such as *melancholy*, *elation* or *anxiety* and, therefore, it cannot be widely applied to the assessment of cultural specificity of broader sets of (emotion) concepts.

Another approach suggested by Goddard and Wierzbicka (1994) and gaining much credit with cultural and anthropological linguists is based on evidence that there is a small core of basic, universal meanings, known as *semantic primes*, which can be found as words or other linguistic expressions in all world languages. These universals are of a conceptual nature and comprise elements such as *feel*, *want*, *say*, *think*, *know*, *good*, *bad*, and so on (Wierzbicka 1994:140). They can be used as a tool for linguistic and cultural analysis to explicate complex and culture-specific words and to articulate culture-specific values and attitudes in terms that are maximally clear and translatable. In numerous articles, chapters and books Wierzbicka has applied her semantic metalanguage in order "to explore human emotions from a universal, language-independent perspective" (Wierzbicka 1995a:236). The *Lingua Mentalis* approach has been applied to the study of several emotion concepts such as Russian *grust'* and *toska*, English *sadness*, German *Angst*, among others

(Wierzbicka 2001). However, despite unparalleled insightfulness of Wierzbicka's observations, some cognitive scenarios she offers as explicating culture-specific emotion terms nevertheless seem to be overly generalizing. Consider, for instance, a cognitive scenario for the English concept of ANGER:

- (a) This person did something bad
- (b) I don't want this person to do things like this
- (c) I want to do something to this person because of this (Wierzbicka 1999:35).

This scenario serves its purpose very well when it comes to contrasting it, for instance, to the scenario of the Ifaluk concept of SONG that will not include (c) above, which results in that 'song' may manifest itself in sulking, refusal to eat, or even attempted suicide (Wierzbicka 1999:36). Notwithstanding, this scenario seems to overlook some other distinctive features of English ANGER. More specifically, as the scenario of the *English* concept, it does not, however, make any reference to the quite typical Anglo tendency to suppress (negative) emotional displays, which could be explicated linguistically in this case by such conventional phrases as *He tried to fight his anger*; neither does it make reference to (unpleasant) bodily reactions associated with this emotion as in *he was trembling/shivering/paralyzed with/by anger*. Accounting for these conventional expressions might lead to adding (d) *I don't want to feel like this*; and/or (e) *I feel bad because of this* to this scenario. As qualities conventionally attributed to emotions are numerous and varied, and are in many cases semantically incongruent⁷, an exhaustive cognitive scenario of any single emotion may have to get rather lengthy and complex to be all-inclusive.

In this context, a *metaphoric* cognitive scenario of an emotion concept (term after Lakoff 1993) seems to be preferable for the study of the cultural specificity of emotion concepts in that, on the one hand, it is able to elucidate rather subtle nuances of the conceptualization of an emotion in a language,

⁷ For instance, one of the culturally-specific connotations of the English word *love* is ambivalence, i.e. the presence of two incongruous, mutually-exclusive parts. This can be instantiated by an adjective *bitter-sweet* which is a frequent collocate of the noun *love*. On a more general level, the stylistic figure of antithesis is frequently used in speaking about love in English (Ogarkova 2005:50-51). This inner incongruity inherent in the semantics of the lexeme *love* has its parallels in other languages and cultures. For instance, the French *amour* is reported to combine rapture and pity (Kirnoze 2001:197-212), while Russian *любовь* is alleged to embrace mutually opposed violent passion and a calm, tender attitude towards the beloved (Karasik 2003: 152).

and, on the other hand, the total of metaphoric scenarios for any single (emotion) concept can give a substantially exhaustive account of respective conceptualizations. As verbalizing emotions in languages of the world has been widely attested to be ubiquitously metaphoric, the study of conceptual metaphors underlying the production of conventional metaphoric expressions associated with respective emotion concepts has gained in popularity among cognitive and cultural linguists. Within the framework of the conceptual theory of metaphor (Lakoff/Johnson 1980) individual/conventional metaphorical expressions (e.g. *He unleashed his anger*) are viewed as resulting from general mappings between a typically concrete source domain (A CAPTIVE ANIMAL), and a typically abstract target domain (ANGER) (Lakoff 1993:208). Metaphor is seen as a primarily extra-linguistic phenomenon whereby our experience of physical domains guides our understanding of abstract domains (Lakoff 1993:208). As emotion concepts are abstract in nature, the conceptual theory of metaphor has been widely applied to the study of emotions in their metaphoric representations in various languages (cf. Kövecses 1986, 1998, Emanatian 1995, Neumann 2001, Shmelev 2003, Krasavskyy 2001).

Aiming at precision and comprehensiveness in metaphor research, more recent publications have attempted to apply the methodology of corpus-based quantitative linguistics to the study of metaphor. Traditional introspective/eclectic method of collecting data for metaphor analysis, as insightfully argued in Stefanowitsch (2006), has been shown to be clearly inferior in terms of data coverage to the corpus-based study which relies on retrieving representative lexical items from the target domains and systematically and exhaustively identifying the metaphorical patterns⁸ associated with them. The frequencies of individual metaphoric expressions, in this methodology, are then submitted to a series of distribution statistics tests for identification of conceptual metaphors most/least strongly associated with each emotion word. Metaphorical pattern analysis (MPA) has proven to be particularly effective for within-language research into two similar emotion concepts, *happiness* and *joy* (Stefanowitsch 2004). Although MPA captures only

⁸ A metaphorical pattern is a multi-word expression from a given source domain (SD) into which a specific lexical item from a given target domain (TD) has been inserted (Stefanowitsch 2006:8).

those metaphors manifesting themselves as metaphorical patterns for specific lexical items (e.g. *He was seething with anger*) and, thus, disregards broader sets of linguistic expressions associated with the concept but not containing the lexeme embodying this concept (e.g. *She got all steamed up*), MPA has been demonstrated to be able to chart exhaustively not only those conceptual mappings attributed to (emotion) concepts in literature but also many others overlooked in studies relying on introspection or eclectic amassing of citations. Moreover, explicit use of the word referring to the analyzed concept lends more accuracy to metaphorical analysis since some mappings identified in literature as construing emotion concepts appear to be questionable (e.g. *That really got him going* as manifestation of BEING-A-FUNCTIONING-MACHINE and *Here I draw the line* as an instance of the TRESSPASSING mapping for ANGER (Kövecses 1998:129).

Furthermore, the scarcity of experimental evidence that the metaphors used to express abstract concepts trigger source domain conceptual structures perceived as one of the strongest criticisms of the theory of conceptual metaphor has called forth experimental empirical studies of activation of source domains aiming at clarifying if language users rely on source domains to make lexical choices about abstract language (Tseng et al, to appear). More specifically, the cited study from the area of simulation semantics aimed to identify whether the SEARCH-FOR-HAPPINESS and JOY-FILLING-A-CONTAINER mappings found as most strongly associated metaphors for the respective concepts (Stefanowitsch 2004) would manifest themselves more frequently in an experiment where the subjects in the process of searching for something/drinking liquids had to opt between *happiness* and *joy* when shown a picture of a person smiling. The results of the experiment confirmed the hypothesis that subjects engaged in searching behaviour would opt for *happiness* rather than *joy* while subjects engaged in drinking liquids would opt for *joy* rather than *happiness*. These empirical findings quite clearly manifest the extra-linguistic validity of the corpus-based study of metaphorical patterns in identifying central conceptual metaphors for particular concepts and provide firm grounds for the conclusion that extensive language data retrieved from a balanced corpus can in all possibility lead to the accurate assessment of the cultural specificity of emotion concepts manifested by their metaphoric representation in a language.

3. Cultural Models of JEALOUSY and ENVY in Modern English

Whereas the language-dependent conceptualizations of what is termed in literature as “basic emotions” have been comprehensively covered in linguistic publications as testified by the extensive bibliography for *anger*, *fear*, *happiness*, *sadness*, *disgust* and, more recently, *joy*, social emotion concepts with relatively few exceptions (cf. Wierzbicka 1995b, 1999, Kövecses 1986, 1990, Tissari 2006a, 2006b, Balashova 2004, Djenkova 2005) have been somewhat neglected in current cognitive and anthropological linguistics research. Among the least studied are the emotion concepts of ENVY and JEALOUSY that are defined as “prototypical” concepts in the secondary/social emotions set (Demoulin et al. 2004:84).

This paper is called forth to bridge this gap by presenting a relatively exhaustive study of the conceptual metaphors that underlie the production of conventional metaphoric expressions embodying the (British) English concepts of ENVY and JEALOUSY. Thus, in the subsequent sections I will address the following questions:

- (1) What are the central ENVY and JEALOUSY conceptual metaphors instantiated by a corpus study of the frequency of occurrence of individual metaphoric expressions with corresponding emotion lexemes?
- (2) Given that the lexemes *envy* and *jealousy* can be used as rough/contextual synonyms and are sometimes regarded in psychological literature as closely related emotions (cf. Parrot 2001), are there *jealousy*- or *envy*-specific conceptual metaphors that would reveal significant differences in the respective cultural models?
- (3) Are folk metaphoric conceptualizations of the English concepts of JEALOUSY and ENVY consistent with the extra-linguistic criteria posited for differentiating them as “secondary” against the set of “basic” emotion concepts in English-speaking psychological literature and what are the likely implications of this consistency?

The first two questions mentioned above are discussed in Section 3, where I present and analyze conceptual source domains mapped on the target domains of JEALOUSY (3.2) and ENVY (3.3). Furthermore, I consider which of the identified JEALOUSY and ENVY conceptual mappings are central for these concepts *per se* (i.e. showing highest frequencies in the respective corpus

samples) and/or are such in view of the contrastive JEALOUSY-ENVY statistical analysis of their significance (3.4). In Section 4 I discuss the criteria most commonly mentioned in psychology as differentiating between “basic” vs. “secondary” emotions and show how folk metaphoric conceptualizations of these two groups of emotions can influence the speakers’ judgements about their nature in scientific research.

3.1 Method and Data

In this paper, I will be using metaphorical pattern analysis, MPA, suggested and tested in Stefanowitsch (2006). The procedure employed by MPA involves choosing a lexical item referring to the target domain under investigation and extracting (a sample of) its occurrences from the corpus. In this sample, all metaphorical expressions of which the search word is a part are identified, and these expressions are then grouped into coherent groups representing general mappings. Contrasting the frequencies of occurrence of these general mappings using distribution statistics (such as chi-square or Fisher exact test)⁹ will reveal those conceptual mappings that are most/least strongly associated with the (emotion) word under study.

The language data here are borrowed from British National Corpus (BNC), complemented in some cases by informal corpus queries from Web Corp search engine and Leipzig Corpus with collocation statistics.

3.2 Metaphors of JEALOUSY

Unlike some languages other than English (e.g. French, Russian and Ukrainian) that view translation equivalents of English *envy* and *jealousy* as separate emotions belonging to different families, English tends to conflate the two. Despite philosophical consensus that *envy* and *jealousy* are distinct

⁹ Since this paper focuses predominantly on the contrasting of either two items (emotion lexemes) or the totals of two groups of items (‘primary’ vs. ‘secondary’ emotion lexemes) all analyses are based on the Fisher exact test whose p-value is interpreted directly as a measure of association strength (cf. Pedersen 1996). Fisher exact test is one of the statistical tests that are conventionally used to calculate if the observed frequencies of a phenomenon (in our data, the frequencies of appearance of individual metaphoric expressions) are higher/lower than they would be if they happened by chance. Put in other words, the Fisher exact test, among other statistical packages, helps to determine whether the inequalities of the phenomenon distribution are statistically (in)significant. The distribution inequalities are said to be significant at $p \leq 0.05$.

emotions¹⁰, it is nevertheless linguistically acceptable to use both words as referring to identical or very similar situations, as in 1 (1a-b):

- (1a) Perhaps he is jealous of the players who were offered huge sums of money for to tour, while he wasn't.
- (1b) I'm almost never envious of actors, never of directors, but I am envious occasionally of writers (BNC).

Dictionary entries for *envy* and *jealousy* define the respective lexemes as very close in meaning as in 2 (a-b):

- (2a) jealousy: "a feeling of unhappiness and anger because someone has something or someone that you want"
- (2b) envy: "the feeling that you wish you had something that someone else has" (EnD).

More importantly with regard to language usage (i.e. referring more to what is frequent or typical rather than merely possible in the linguistic system), Leipzig Corpus gives English lexemes *envy* and *jealousy* as significant mutual co-occurrences. In the respective samples (237 and 687 hits for *jealousy* and *envy*, respectively) both lexemes co-occur 11 times. *Jealousy* is the fifth in importance co-occurrence of *envy* after the lexemes *world* (27), *neighbors* (17), *green* (14), *I* (13); *envy* in its turn is the second in importance co-occurrence of *jealousy* after the adjective *sexual* (12). This testifies to the fact that contextually both lexemes are rather frequently used simultaneously. *Sexual* as a significant co-occurrence of the English word *jealousy* made us look at the corresponding status of the noun *love* as a collocate of *jealousy*, as the association strength between the two can in all possibility indicate how frequently *jealousy* is used in the sense of "the state of mind arising from the suspicion, aggression, or knowledge of rivalry" (OED) in love relationships, rather than in the sense of "unhappiness or anger about other people's possessions" (EnD). Although Leipzig Corpus gives both lexemes as mutually significant, when contrasted to the corresponding frequencies of co-occurrence of French *jalousie* and *amour* it appears that in the French language *jalousie* and *amour* display a significantly

¹⁰ Most commonly the difference is claimed to be based on the rationale that while envy involves two, jealousy involves three parties (the subject, the rival and the beloved) (cf. D'Arms 2002, Farrell 1980, Yates 2002:86). Also, the distinction can be posited as follows: "Envy concerns what you would like to have but don't possess, whereas jealousy concerns what you have and do not wish to lose" (Van Sommers 1988:1).

stronger association than in the English language model (Fisher exact, $p \leq 0.001$). The same also holds true for the English-German contrast. Out of 3149 instances of the usage of the German noun *Eifersucht* (jealousy) 787 times it co-occurs with the noun *Liebe* (love) compared to 10 out of 237 instances of *jealousy* and *love* co-occurring. Thus, distribution statistics show a significantly stronger association between *Eifersucht* and *Liebe* than between *jealousy* and *love* (Fisher exact, $p \leq 0.001$). Tentatively, the language-dependent over-lapping between English concepts of ENVY and JEALOUSY results in that some English-speaking psychological works view the emotions of *envy* and *jealousy* as very close or interrelated and stemming from the common basic emotion of *anger* (Parrot 2001).

In this context, it should also be expected that the words *envy* and *jealousy* should display significant similarity in their metaphoric behaviour. Thus, the prediction to be verified here is whether the lexemes *jealousy* and *envy* will appear in the same metaphoric patterns both qualitatively (3.2 and 3.3) and quantitatively (3.4).

The cognitive linguistics literature assigns only one conceptual metaphor to the concept of JEALOUSY, which is JEALOUSY (more abstractly, any STRONG EMOTION) IS MADNESS (Lakoff/Esperson/Schwartz 1991:146). To see whether the MADNESS mapping is indeed the central and/or the only one for conceptualizing JEALOUSY in the Anglo culture, I extracted all metaphoric expressions for the noun *jealousy* from BNC. The total of 678 hits yielded 553 metaphorical expressions. Table 1.1 shows 22 most frequent mappings (i.e. those appearing in the sample more than 4 times when normalized to 1000 hits¹¹) together with their frequencies of occurrence (actual frequencies are given in parentheses). The mappings are shown in the decreasing order of their frequencies in the sample; the patterns are presented in an abstracted form: verbs are shown in the infinitive, slots for agents/experiencers are shown as X or Y, and similar patterns are collapsed into compact form using slashes for alternatives and parentheses for optional elements.

¹¹ This was done to render the frequencies of *jealousy* and *envy* mappings immediately comparable; statistical tests, however, were performed with actual frequencies.

MAPPING: JEALOUSY/BEING JEALOUS IS	EXAMPLES	N/1000
A DISEASE/ PAIN	fit/bout of jealousy, X do sth in/throw a fit of jealousy, X be given to jealousy, X suffer/die/be afflicted from/of/with jealousy, symptoms/frissons/torments/nagging/niggle/the pain/the shock/spasms of jealousy, X feel a pang/twinge of jealousy, remedy be needed after jealousy, X be tormented/torment X-self by/with jealousy, jealousy deter X's recovery, X be vulnerable to jealousy, jealousy be symptom/ deficiency/pain, jealousy reach painful extremes, X be aggrieved/(un)troubled by jealousy, debilitating/sick/intolerable/preventable/painful jealousy, jealousy tighten X's stomach muscles/writhe, X quiver with jealousy, jealousy disease/plague X, X's stomach be clenched with jealousy, jealousy coil like acid in X's stomach, sth assuage jealousy;	100 (68)
AN OPPONENT IN A STRUGGLE/ ENEMY	jealousy enfeeble/get the better of/kill X, jealousy leave the place with graves, X (ruthlessly) quash jealousy, a battle against jealousy, furious/ruthless/merciless/murderous/ powerful/ frightening/ violent/ dangerous/dreadful/unbeatable jealousy, X safeguard Y against jealousy, jealousy mar X and Y's relationship, the wounds of jealousy reopen, EMOTION conquer jealousy, conspiracy of jealousy and EMOTION, jealousy and EMOTION conspire, X fall into the trap of jealousy, intrusion of/wrestling with jealousy, beware of jealousy, X confront X's own jealousy, X cope with jealousy, X surrender/stamp to/on jealousy, X be safe from Y's jealousy, X subdue jealousy, X protect Y from Z's jealousy, jealousy refuse to be submerged, jealousy be superseded by EMOTION, X be tortured by jealousy, X combat Y's jealousy, jealousy make X a target, X have no control over jealousy, X be appalled by jealousy, to be free from jealousy, freedom from jealousy, X be seized with jealousy;	71 (48)
MIXED/PURE SUBSTANCE	combination/mixture of jealousy and EMOTION, (im)pure jealousy, jealousy mixed with EMOTION, murky waters of jealousy, a spice of jealousy, jealousy mingled with EMOTION, mixed EMOTION and jealousy, jealousy matched by EMOTION, amalgam of EMOTION and jealousy, EMOTION veined with jealousy, jealousy be mixture of EMOTIONS, EMOTIONS be all part of jealousy, components of jealousy, a grain/hint/tinge/ tincture of jealousy, jealousy and EMOTION combined/mixed together, EMOTION coupled with jealousy, pure jealousy;	44 (30)
(HOT) LIQUID (IN A CONTAINER UNDER PRESSURE)	jealousy spill over into X's behaviour, wave/source/spurt/surge/rush/burst/waters/outbursts of jealousy, jealousy surge through X, jealousy come to the boil, pent-up/deep jealousy, X take a dive in jealousy, X pour out jealousy, X seethe with jealousy, flooding jealousy;	43 (29)
SUBSTANCE IN A CONTAINER	jealousy be in/inside X, jealousy be embedded deep within X, X's life full of jealousy, X be filled with/full of jealousy, jealousy allow no room for EMOTION, there be jealousy within sth, jealousy in X's eyes/heart/soul/mind/nature, jealousy be/settle in (the pit of) X's stomach, jealousy surface in X;	43 (29)
AN ANIMAL/ INSECT	consuming/savage/fierce jealousy, X be gnawed/ eaten up by jealousy, jealousy be a green-eyed/yellow monster, jealousy creep in, X restrain jealousy, jealousy devour/gnaw at X, jealousy be a shark seeking its supper, jealousy bit like sharp teeth, jealousy bit into X, X be dogged by jealousy, jealousy have sharp talons, the buzz of jealousy, jealousy sting like a wasp;	38 (26)

SHARP OBJECT/WEAPON	acute/sharp jealousy, jealousy lance/shoot through X, stab of jealousy, jealousy be a dagger/knife, jealousy pierce X like a spear, jealousy jag through X, jealousy stab X, jealousy be triggered ¹² , X trigger jealousy;	36 (24)
FIRE	flash/spark of jealousy, X be inflamed with jealousy, kindle/inflame X's jealousy, searing jealousy, a fiery ball of jealousy, jealousy fire X's imagination, jealousy be a flame so quickly started, jealousy be fire, extinguish jealousy, jealousy flare (into EMOTION), jealousy sear through X like a forest fire, X's eyes flare with jealousy, jealousy flare in X's eyes, X feel jealousy burn inside;	34 (23)
A HUMAN BEING/ (SLEEPING) ORGANISM	jealousy squat like a diseased vagrant, jealousy be a bedfellow, naked jealousy, X give body to jealousy, EMOTION be born from jealousy, jealousy exist, existence of jealousy, forgeries of jealousy, old jealousy, jealousy mock X, X arouse jealousy, jealousy pale;	32 (22)
INSANITY/ FOOLISHNESS	X go/be mad/crazed with jealousy, X be wild with jealousy, mad/irrational/stupid/obsessive/ unreasonable /manic /small-minded jealousy, jealousy be wildly in X's eyes;	31 (21)
(DESTRUCTIVE) PHYSICAL FORCE	destructive jealousy, X be ruined/destroyed by jealousy, jealousy split/crack Z, jealousy tear X and Y apart, uncontrolled jealousy, jealousy be frightening/driving force, rage of jealousy, tug of jealousy, X be moved/driven by jealousy;	31 (21)
UNPLEASANT TASTE /GORGE	embittered/bitter jealousy, taste of jealousy, X swallow 's jealousy, a choking sensation of jealousy, jealousy be like parachuting so that X cannot breathe, suffocating/stifling jealousy, jealousy choke X;	18 (12)
HIGH/LOW (INTENSITY)	jealousy step up/rise/arise, X give rise to jealousy;	10 (7)
(UN)MASKED OBJECT¹³	open/hidden/masked jealousy, X bury jealousy, a display of jealousy, jealousy be written/shown on X's face;	10 (7)
AN OBSTACLE (TO VISION)/ BARRIER	jealousy be obstacle, jealousy be a lens, jealousy affect what is seen, jealousy get in the way, jealousy hinder sth;	9 (6)
WRONGDOING	jealousy be a failing, X impute Y Y's jealousy, warrant jealousy, accuse X of jealousy, X confess to jealousy;	7 (5)
WEATHER PHENOMENON	climate/atmosphere/air of jealousy, jealousy be dissipated, sth be clouded by jealousy;	7 (5)
PLANT	jealousy have roots, jealousy grow, X plant seeds of jealousy, rootless jealousy;	6 (4)

¹² I was uncertain of whether to classify instances of "triggering jealousy" as the WEAPON or MECHANISM metaphor. Taking into account the primary and diachronically initial meaning of *trigger* as "small lever than fires gun", from which the meaning of "lever that operates mechanism" has evolved, I adhere throughout the paper to labeling these examples as realizations of the WEAPON metaphor. For the same methodological considerations I treat expressions following the pattern *X be consumed with EMOTION* as realizations of the FIERCE ANIMAL metaphor in contrast to Stefanowitsch (2006:36) where this pattern is subsumed under the HEAT conceptual metaphor.

¹³ Since this mapping introduces an important parameter of visibility of an emotional display it is treated here as a specific metaphor rather than one subsumed under the category of the event-structure object mappings.

SPY	suspicious jealousy, prying jealousy;	4 (3)
LIGHT	a flicker of jealousy, jealousy glitter in X's eyes;	4 (3)
SUPERNATURAL BEING	demotic jealousy, X worship at the altar of jealousy, demons of jealousy;	4 (3)
MECHANISM	jealousy produce sth, jealousy be at work, cycle of EMOTION and jealousy;	4 (3)
TOTAL		586 (399)

Table 1.1: Specific metaphors of JEALOUSY from BNC

As can be seen from Table 1.1, most frequent specific metaphors of JEALOUSY that top the list are JEALOUSY-IS-DISEASE/PAIN and JEALOUSY-IS-OPPONENT/ENEMY. Importantly, the DISEASE mapping reached the corrected levels of significance¹⁴ when contrasted to *all other* specific mappings (Fisher exact, $p \leq 4.55 \text{ E-}5^{***15}$) with the only exception of the ENEMY mapping.

Obviously, the DISEASE mapping for JEALOUSY also accounts for the INSANITY/MADNESS metaphor which can be considered a variation/subtype of the former. Taken together, DISEASE and MADNESS constitute 16.6 per cent of the total number of metaphorical expressions identified in the sample. The ENEMY mapping in its turn is further developed in the JEALOUSY-AS-WEAPON scheme and is also consistent with JEALOUSY-AS-DESTRUCTIVE (PHYSICAL) FORCE in that all the three mappings conceptualize JEALOUSY as a powerful hostile entity causing physical damage to its experiencer. The JEALOUSY-AS-DESTRUCTIVE (PHYSICAL) FORCE mapping also correlates with the idea expressed in Kövecses (2000:61-86) that a “master metaphor” for most emotion terms is EMOTION IS FORCE¹⁶. Together these 3 mappings cover 93 individual metaphoric expressions, i.e. 16.8 per cent of all metaphors in the total sample and represent the most numerous grouping across the set. Another set of consistent mappings embraces (MIXED/PURE) SUBSTANCE (IN A CONTAINER) and (HOT) FLUID (IN A CONTAINER UNDER PRESSURE). These metaphors account for 15.9 per cent of all metaphoric expressions. Three

¹⁴ As this amounted to the process of multiple testing, the levels of significance were corrected by dividing them by 22, i.e. the number of the tests performed.

¹⁵ Following convention, one asterisk (*) with corrected levels of significance stands for the p -value ≤ 0.05 , two asterisks (**) stand for $p \leq 0.01$, three asterisks (***) stand for $p \leq 0.001$.

¹⁶ At this point Kövecses is inspired by Talmy's notion of “force dynamic” (1988).

groups of metaphors mentioned above seem to be decisive in the verbalization of the concept of JEALOUSY. Simple quantifying, however, does not suffice for claiming that these metaphors are central for verbalizing JEALOUSY unless complemented with the statistical evaluation of their significance when contrasted to the corresponding frequencies of metaphors construing ENVY. The respective evaluation will be given in subsection 3.4.

It is important to note that the vast majority of mappings in Table 1.1 were also identified as construing basic emotions with few exceptions such as JEALOUSY-IS-A-(UN)MASKED-OBJECT, JEALOUSY-IS-A-MECHANISM, JEALOUSY-IS-A-SPY, JEALOUSY-IS-A-SUPERNATURAL-BEING and JEALOUSY-IS-A-WRONGDOING. Although none of these five mappings have shown considerable base frequencies with *jealousy* in the BNC sample, they appear to introduce an important parameter of moral judgment imposed on either experiencing jealousy (in the WRONGDOING metaphor) or manifesting it (in the (UN)MASKED OBJECT metaphor). Furthermore, the SUPERNATURAL BEING metaphor explicated by expressions like *demotic jealousy*, *X worship at the altar of jealousy*, *demons of jealousy* is semantically coherent with the WRONGDOING mapping in that it adds to the negative perceptions of jealousy as an inherently sinful feeling to be condemned by society. The SPY metaphor (e.g. *suspicious jealousy*, *prying jealousy*) refers to the prototypical behaviour of a jealous person that is metonymically attributed to the emotion itself. Interestingly, suspicion as a key component of jealousy appears to be a cross-cultural phenomenon: a clinical study of morbid jealousy in Sri Lanka reports that the word “suspicion” (or a Sinhalese word with that meaning) was used by non-jealous partners to describe the problem with their jealous spouses (de Silva 1999:117-188).

Twenty two metaphorical mappings in Table 1.1 are instantiated by 399 individual metaphoric expressions, which accounts for 72.15 per cent of the total. The remainder not listed in Table 1.1 is constituted by presumably very general metaphors, that “apply to all emotion concepts” (Kövecses 1998:133), EVENT STRUCTURE metaphors, i.e. general metaphorical systems for verbalizing “notions like states, changes, processes, actions, causes, purposes, and means” (Lakoff 1993:220). There are two major metaphorical event structure systems: the location system, where change is conceptualized as “the motion of the thing-changing to a new location from an old one” (Lakoff

1993:225), and the object system¹⁷, where change is conceptualized as “the motion of an object to, or away from, the thing changing” (Lakoff 1993:225); a specific subcase of the latter is called the possession system, where “the object in motion is conceptualized as a possession and the thing-changing as a possessor”. Both location and object metaphoric systems in conceptualizing emotional reality support and provide further evidence for Benjamin Whorf’s idea (who was initially inspired by empirical findings in the Hopi language) that “Standard Average European” – i.e. Western languages in general – tends to analyze reality as *objects in space* while other languages, including many Native American languages, are oriented towards *process* (Whorf 1969).

Evidence for both major systems can be found in the sample investigated here. There are 38 examples where JEALOUSY is conceptualized as a location, and its experiencers as existing in, moving or being moved into or out of this location (e.g. *X spend/waste life in jealousy, X be raised in jealousy, X’s motive lie in jealousy, X express X self in jealousy, etc.*), i.e., the location system accounts for 6.9 per cent of the metaphorical expressions in the sample. The object system and the possession system are instantiated 104 times, and, thus, constitute the most numerous group (18.8 per cent). In this system, being jealous can be conceptualized as possessing an object (e.g. *X’s jealousy, X have jealousy*), causing jealousy can be conceptualized as transferring an object (e.g. *X bring jealousy*); more generally, jealousy can be conceptualized as a moving object (e.g. *jealousy surge/go through X, jealousy sweep over/through X, jealousy enter somewhere, jealousy be gone, jealousy come over X, jealousy move in/stop/writhe/twist/come to the fore/revolve/escalate*), as a moved object (e.g. *jealousy be summoned forth, X distract Y’s jealousy, X feel jealousy towards Y*), and as an object in some location (e.g. *there be jealousy about X, jealousy be still there, X have no room for jealousy etc.*). Within the conceptualization of JEALOUSY as an object, the intensity of the jealousy can be conceptualized as physical size or quantity (e.g. *great/little jealousy, much jealousy, jealousy be mounting, a certain amount of jealousy, small degree of jealousy, etc.*).

Event structure mappings account for 25.67 per cent of the total sample and are shown below in more detail:

¹⁷ Some researchers label this system as the COMMODITY metaphor (cf. Tissari 2006b).

JEALOUSY/BEING JEALOUS IS X	EXAMPLES	N per 1000
	LOCATION	
1. JEALOUSY IS A LOCATION	X spend/waste life in jealousy, X be raised in jealousy, X's motive lie in jealousy, X express X self in jealousy, X sit on X's jealousy, an area of jealousy, aside from jealousy, smth be beyond jealousy, the outcome of jealousy be sth, X be moved to jealousy, X be removed from jealousy, sth lead to jealousy, there be jealousy between/among X and Y;	43 (29)
2. ACTING ON AN EMOTION IS ACTING IN A LOCATION	X do smth out of jealousy	9 (6)
3. FOUNDATION	smth be based/founded on jealousy	4 (3)
TOTAL		56 (38)
	OBJECT	68 (46)
1. POSSESSION	X have/hold jealousy, X's jealousy	
2. TRANSFERRING AN OBJECT	X bring jealousy	4 (3)
3. MOVING OBJECT	jealousy surge/go/sweep over/through X, jealousy enter somewhere, jealousy be gone, jealousy come over X, jealousy move in/stop/writhe/twist/come to the fore/revolve/escalate, overriding jealousy, jealousy give way to/accompany EMOTION, jealousy come to the fore;	28 (19)
4. MOVED OBJECT	jealousy be summoned forth, X distract Y's jealousy, X feel jealousy towards Y	4 (3)
5. OBJECT IN SOME LOCATION	there be jealousy about X, jealousy be still there, X have no room for jealousy, there be jealousy on X's part, X put jealousy aside	9 (6)
6. THE INTENSITY IS PHYSICAL SIZE OR QUANTITY	great/little jealousy, much jealousy, jealousy be mounting, a certain amount of jealousy, small degree of jealousy	12 (8)
7. PHYSICAL OBJECT	X create jealousy, X apply EMOTION to jealousy, X get rid of jealousy, X modify jealousy into EMOTION, X obliterate jealousy, jealousy crop up, sth put X in touch with jealousy	12 (8)
8. INCOMPLETE OBJECT¹⁸	X be beside X-self with jealousy	3 (2)
9. CAUSER/PATH	jealousy make X act, jealousy lead X to sth	13 (9)
ALL OBJECT MAPPINGS		153 (104)
TOTAL EVENT-STRUCTURE		209 (142)

Table 1.2: Event-structure metaphors of JEALOUSY from BNC

¹⁸ Although the label for this mapping seems to be somewhat questionable as it refers rather to an "out-of-the-body" experience, I nevertheless use it as here as suggested in Kövecses (1998).

Interestingly, the proportional distribution of specific and event-structure metaphors across basic emotion terms, on the one hand, and the emotion word *jealousy*, on the other, is intriguingly uneven: for all basic emotions analyzed in Stefanowitsch (2006) event-structure metaphors cover the vast majority of all mappings (66.35 per cent for *anger*, 70.85 for *fear*, 78.21 percent for *happiness*, 70.24 and 87.68 per cent for *sadness* and *disgust*, respectively) contrasted to only a fourth (25.7 per cent) of all mappings taken up by event-structure metaphors in the BNC sample for *jealousy*. This finding might tentatively indicate that the English concept of JEALOUSY is perceived as a too strong and acute emotional state to be verbalized via very general event-structure metaphors; on the other hand, any claim in this vein cannot be considered definite unless one traces back the evolution of the corresponding lexeme in the English language which might uncover formal (i.e. collocation and syntactic) restrictions of its usage in some (event-structure-like) patterns.

Taken together, specific and event-structure metaphors in Tables 1.1 and 1.2 bring the total coverage to 98.9 per cent. The remainder (1.1 per cent) is made up by 11 metaphors instantiated 13 (12) times in the sample. These infrequent mappings are shown in Table 1.3:

JEALOUSY/BEING JEALOUS IS X	EXAMPLES	N per 1000
BECOMING GREEN IN COMPLEXION	X be (pea)-green with jealousy;	3 (2)
ROT	the rot of jealousy;	1 (1)
LURE	X buy into jealousy;	1 (1)
DARKNESS	dark jealousy;	1 (1)
AIR	X give vent to jealousy;	1 (1)
EXPLOSIVE	X be undermined by jealousy;	1 (1)
BLOOD	jealousy pulse;	1 (1)
GARMENT	X outgrow jealousy;	1 (1)
SOIL	sth have roots in jealousy;	1 (1)
ELECTRICITY	place be charged with jealousy;	1 (1)
WEIGHT	loaded with jealousy;	1 (1)
TOTAL		13 (12)

Table 1.3: Infrequent mappings of JEALOUSY from BNC

The metaphorical pattern analysis has evidenced that JEALOUSY can be conceptualized via a variety of conceptual mappings apart from the MADNESS mapping (which accounts only for 3.8. per cent) that is solely ascribed to it in the linguistic literature.

To verify the frequency results presented in this subsection and to ensure that all the conceptual metaphors construing the English concept of JEALOUSY are taken into consideration, I made a complementary informal Web Corp query

using the same procedure of metaphor retrieval and processing as described above. In this query *jealousy* and the plural *jealousies* appeared together 2022 times and revealed OPPONENT IN A STRUGGLE (73), MADNESS (54), DISEASE (33), and the (DESTRUCTIVE) PHYSICAL FORCE (32) as most frequent metaphors, confirming, thus, the frequency results obtained from BNC. Interestingly, the Web Corp query featured additionally the occurrence of the HEALTH (e.g. *healthy/normal jealousy, jealousy be a healthy sign*) and the SUPERIOR (e.g. *jealousy penalize X, jealousy exact service from X, etc.*) mappings. That these metaphors were not found in BNC can be accounted for by the size of the sample under investigation since both unaccounted for mappings appeared only 5 times in the Web Corp sample of 2022 hits, i.e. 2.4 times per 1000 usages of the word *jealousy*. Interestingly, that the HEALTH metaphor has shown to be very rare for JEALOUSY seems to confirm the claim that there has been a gradual debasement of the term *jealousy* from what was seen, in earlier historical times in the West, as a “noble passion”, to its current, less flattering meaning (Shepherd 1961). Etymologically, most of the words which became distinctive terms for *jealousy* were originally used also in a good sense, “zeal, emulation” (ED).

Another consideration is due here in view of MPA as a method of getting a presumably complete charting of mappings associated with the concept. It appears that it will contribute the completeness of the mappings lists if one searched the corpus not only for the noun in singular embodying the concept but also for the corresponding plural (e.g. *jealousies, envies*), adjectival (e.g. *jealous, envious*) and other forms of the lemma word¹⁹. For instance, the BNC search for *jealous* (916 hits) revealed the existence of the JEALOUS-PERSON-IS-AN-ANIMAL mapping (e.g. *X be jealous as a wildcat, X be jealous as an ousted tom-cat, X be like a jealous hen*). This mapping, again, did not show considerable frequency as it appeared only 3 times in the total sample. A complementary Web Corp search has shown some other animals nouns participating in the simile-like patterns instantiating the metaphor mentioned above, e.g. *X be jealous as a Barbary pigeon/turkey-(cock)/tiger/louse/beast/fiend/hornet/hatch of hens/toad/goat/trunkfish, etc.* With the established PERSON-IN-LOVE-IS-AN-ANIMAL and LUSTFUL-PERSON-IS-AN ANIMAL metaphors (cf. Lakoff

¹⁹ This methodological nuance is accounted for in Tissari (2006b), though the paper itself does not employ a large-scale quantitative analysis.

1991:162, Ogarkova 2005:112-113) in mind, it might be revealing to have a closer look at animal idioms across emotion terms as they appear to capture folk conceptualizations of animals as prototypical experiencers of certain emotional states. A BNC and Web Corp queries for this pattern suggest the existence of this metaphor across basic emotion terms as well, e.g. *angry as a bee/wasp/dog barking/hornet/bull/wet cat/snake, happy as a clam in the high tide/dog/lark/robin/turkey in January/a pig(hog) in poop/shit/the mire/goldfish in the sea, disgusted as a wet hen/hen in a rainstorm, afraid as a grass-hopper*. In the cultural perspective, animal idioms appear to reflect diverse natural environments in which English-speaking people live, which evokes, for instance, the emergence of such a (restricted in its usage and rather rare) Australian variation of the “happy-as” pattern as *happy as a (boxing) kangaroo in a fog* (Colin 2006:17); similarly, *happy as a clam (in the mud at the high tide)* mirrors natural environment of the British Isles which can suggest that parallel expressions will not be found in languages of communities that do not have access to sea or ocean. The implications of the quantitative aspect of animal similes across both social and basic emotion terms are further discussed in subsection 4.3.

Apart from this, other simile-like patterns with the adjective *jealous* found with the complementary Web Corp search can make reference to the ethnic stereotypes encoded in conventional sayings and clichés. Thus, the expression *jealous as a Turk* and *jealous as a Spaniard* mirror stereotypical perception of the Turkish and the Spanish people as more passionate and, consequently, more given to experiencing jealousy²⁰.

3.3 Metaphors of ENVY

The metaphoric conceptualization of the English concept of ENVY has not been so far analyzed in current linguistic literature, so the corpus-based study of its major conceptual mappings is likely to give a new insight into the multiple way in which this emotion concept is metaphorically construed in English.

²⁰ Along this line it could be expected that the French are perceived in the same way. However, the slang expressions like *French movie/book/kiss/sickness/bath*, etc. explicitly suggest “sexual indecency” rather than “passion” (cf. Ogarkova 2005:104).

The BNC returned 730 hits for *envy* and these instantiated 442 metaphoric expressions. Corresponding BNC concordance lines were in the first place searched for mappings analogous to those identified for *jealousy*. They are listed in Table 2.1 in the same order as in Table 1.1:

MAPPING: ENVY/BEING ENVOIOUS IS X	EXAMPLES	N/1000
A DISEASE/ PAIN	a twinge/pang of envy, X be sensitive/immune to/from envy, X live with envy, envy make X's body cold and unhappy, X be blighted/eroded by/through envy, envy be intolerable, X soothe Y's envy, poignant envy, envy grate painfully through X;	27 (20)
AN OPPONENT IN A STRUGGLE/ ENEMY	X be beyond envy's reach, envy be strong/indefeasible, X neutralize envy, defend X against envy, X succumb/be subject to envy, X be free of envy, envy be repressed/unmitigated/murderous/malevolent/ hateful/baleful, repression of envy, X exercise a defense against envy, envy be deadly struggle, X do sth against envy, X escape/fear/overcome envy, X be victim/prisoner of envy, X be at the mercy of envy, X be invaded by envy, X's envy and EMOTION thwart;	40 (29)
MIXED/PURE SUBSTANCE	a touch/tinge/measure/note/some degree of envy, a slight/faint envy, SENSATION mixing/mingling with envy, mixture of EMOTION and envy, SENSE coupled with envy, mixed envy and EMOTION, envy tinge X's feelings, pure envy, sth be part EMOTION part envy, envy and EMOTIONS be part of sth in varying proportions, sth combine EMOTION and envy, X act half in envy half in derision;	38 (28)
LIQUID	X ooze envy, envy seep from every X's pore, a rush/source of envy, deep envy;	7 (5)
SUBSTANCE IN A CONTAINER	envy fill X's files, X be filled with/full of envy, there be envy in X's heart/mind/eyes/voice/glance, sth prick X's envy, envy be there in human beings, sth contain envy;	26 (19)
AN ANIMAL/ INSECT	X be consumed with/by envy, envy find material it feeds on, envy be nourished, ferocious envy, envy spring, X be bitten by envy, X breed envy, envy creep in;	15 (11)
FIRE	X stoke up envy, envy be fanned, X burn with envy;	4 (3)
A HUMAN BEING/ (SLEEPING) ORGANISM	envy exist, envy cease to exist/be dead, envy take sth from X's heart, X foster envy, X arouse envy, envy marry, envy go hand in hand with EMOTION, envy be magnanimous/wistful/old, envy sneer with trumpeter's lips, envy have its party, envy wish sth, envy scamper, envy play a deadly tag, envy say sth;	30 (22)
MADNESS	stupid envy;	1 (1)
(DESTRUCTIVE) PHYSICAL FORCE	envy be destructive, X be driven by envy, envy drive X;	5 (4)
WEAPON	a stab of envy, X be target of envy;	4 (3)
TASTE /GORGE	X stifle envy, bitter envy;	3 (2)
HIGH/LOW (INTENSITY) (UN)MASKED OBJECT	n/a	0
MECHANISM	envy disappear, envy be veiled/masked/open/frank/ secret, envy masquerade, envy be written on X's face;	11 (8)
MECHANISM	envy have function, sth be exercised by envy, X exploit envy for X's purposes;	5 (4)
AN OBSTACLE (TO VISION)/ BARRIER	X cannot see for envy, envy be obstacle;	3 (2)

WRONGDOING	sth degenerate into envy;	1 (1)
WEATHER PHENOMENON	atmosphere of envy, envy be dissipated, sth be a lightning-conductor for envy;	4 (3)
PLANT	trefoil of envy, EMOTION and EMOTION, envy grow, envy have its roots	5 (4)
SPY	n/a	0
LIGHT	X's eyes glisten with envy, X gleam maliciously, a flash/flicker of envy	5 (4)
SUPERNATURAL BEING	X exorcise envy, demon/devil envy, X worship at the altar of envy	8 (6)
TOTAL		242 (179)

Table 2.1: Specific metaphor of ENVY from BNC

Metaphoric patterns in Table 2.1 show that the vast majority of metaphorical patterns for JEALOUSY is also found as construing ENVY. Only two mappings, ENVY-IS-A-SPY AND INTENSITY-OF-ENVY-IS-HEIGHT were not found in the BNC sample for *envy*. The absence of the SPY mapping does not come as a great surprise since it makes reference to *jealousy* as an acute feeling of competitiveness and fear of loss in a relationship which can result in spying behaviour on part of its experiencer. The absence of the INTENSITY-IS-HEIGHT mapping for ENVY might initially suggest that ENVY is construed as a less intense emotion when contrasted to JEALOUSY. This nevertheless will be further tested below as, firstly, the HEIGHT metaphor was not used considerably frequently as construing intensity of JEALOUSY, and, secondly, the intensity of emotions can be conceptualized via several non-related mappings, such as INTENSITY-OF-EMOTION-IS-HEIGHT, EMOTION-IS-(HOT)-FLUID (IN A CONTAINER), EMOTION-IS-MADNESS, and EMOTION-IS-FIRE/HEAT. Physiology-based EMOTION-IS-BLINDNESS or EMOTION-IS-BARRIER (TO VISION) can also be seen as correlating with the criterion of intensity. Although the former was not instantiated in our data, a web search with Web Corp suggests that metaphoric expression *blind with jealousy* is twice more frequent than *blind with envy* (35:16).

As can be seen from Table 2.1, three groups of metaphors found to be most significant for *jealousy* are not such in the case of *envy*. DISEASE/PAIN and MADNESS mappings account for mere 4.8 per cent in the total sample, which is roughly four times less frequent than with *jealousy*. ENEMY/WEAPON/DESTRUCTIVE FORCE group of metaphors instantiated 36 patterns that cover only 8.2 per cent, that is, the ratio of *jealousy* to *envy* in

this group of metaphors is roughly 2:1. The LIQUID group of patterns (32 times, i.e. 7.2 per cent) is somewhat close in its significance to the respective group found with JEALOUSY (the ratio of *envy* to *jealousy* in this group of mappings is 1:1.5), but there is a distinct difference in the actual wording of the corresponding patterns. While JEALOUSY can be conceptualized as a HOT LIQUID (IN A CONTAINER UNDER PRESSURE) as in *burst of jealousy*, *outbursts of jealousy*, *pent-up jealousy*, *a spurt of jealousy*, ENVY is conceptualized rather as an INTERNAL/BODILY LIQUID, as in *X ooze envy*, *envy seep from every X's pore*. In fact, the BNC did not instantiate any individual metaphoric expression referring to ENVY as A HOT LIQUID. Similarly, an informal query from Web Corp returned 6 hits of *pent-up envy* against 15 hits of *pent-up jealousy* (ratio roughly 1:3), 20 instances for *simmering envy* against 121 equivalent jealousy patterns (ratio 1:6), 11 hits for *outburst of envy* against 45 analogous hits with *jealousy* (ratio 1:4) and no hits for *a spurt of envy* against 14 valid hits for *jealousy*.

Table 2.2 below shows three additional conceptual metaphors of ENVY that were not found as construing the concept of JEALOUSY.

MAPPING: ENVY/BEING ENVIIOUS IS X	EXAMPLES	N/1000
BECOMING GREEN IN COMPLEXION	X be/go/grow/become green with envy, X be pea-green with envy, X make/leave Y green with envy	22 (16)
ANTIDOTE/POISON	envy be antidote to EMOTION, envy be poison, poisonous envy;	5 (4)
FUEL	sth be fuelled by envy, envy provide ample fuel for EMOTION	4 (3)
TOTAL		31 (23)

Table 2.2: Other specific metaphor of ENVY from BNC

The most significant mapping here is BEING ENVIIOUS IS BECOMING GREEN IN COMPLEXION which appears 16 times, i.e. 3.6 per cent of the total sample as compared to only 2 parallel instances with the noun *jealousy*²¹ (0.3 per cent). To some extent, this mapping can be consistent with the DISEASE mapping as green is a colour associated with sickness, as people's skin takes on a slightly yellow/green tinge when they are seriously ill. Green is also the colour of many unripe foods that cause stomach pains. Neaman and Silver

²¹ The study of a larger corpus, the Bank of English (450 million words) revealed even greater difference in frequencies of *green with envy* vs. *green with jealousy* (136 against 4) (Phillip 2006:82).

report that “green” and “pale” were alternate meanings of the same Greek word²² (Neaman/Silver 1995). The Greeks believed that envy and jealousy were accompanied by an overproduction of bile, lending a pallid green cast to the victim (PF)²³. Relevantly, the English word *jaundice* which is contextually used as a synonym of *envy* comes into English from Latin *galbinus* “greenish yellow” (and earlier, probably, from Proto-Indo-European **ghel-* “yellow, green”) through Old French *jaunisse* “yellowness” (ED), which again indicates the correlation between *envy* and ‘becoming green/yellow in colour’.

Thus, BEING ENVIOUS IS BECOMING GREEN IN COMPLEXION metaphor is consistent with both the DISEASE and the FLUID-INSIDE-HUMAN-BODY (referring, perhaps, to bile) mappings. In view of etymological connection between *green* as “envious” and *green* as “sick”, the question still remains whether *green with envy* should be subsumed under the DISEASE/PHYSICAL ANNOYANCE mapping. In this paper, however, I treat these expressions as instantiating a separate conceptual metaphor for two methodological considerations. Firstly, BECOMING GREEN IN COMPLEXION refers rather to a specific case of the DISEASE mapping (i.e. when one is so envious/jealous that the overproduction of bile makes him/her feel unwell) and it takes some reflection on part of a language speaker to associate this expression with the source domain of DISEASE. Secondly, this expression, with the only exception of *jealousy*, is not used with other emotion lexemes and adding its frequencies to the DISEASE group will lead to some confusion in contrastive statistical results.

Green is also associated with jealousy as in the proverbial *green-eyed monster*, the phrase used by, and possibly coined by, Shakespeare to denote jealousy in *Othello*: “O, beware, my lord, of jealousy; // It is the green-eyed monster which doth

²² On the poorly defined boundaries between *green* and *yellow* in historical sources and beyond see also (Phillip 2006:81-82).

²³ Noteworthy, the color/emotion correspondences are by no means universal. In Japanese culture envy is associated with the red colour, in Arabic the color for envy is yellow, as in *yaSfaru wajhahu mina al-Heqd* “His face (turns) yellow with envy”, in German the associates of envy are yellow, green and pallid as in *der grüne/gelbe/blasse/bleiche Neid*. The Arabic and German equivalents suggest perhaps the same correlation with the change in the facial complexion as well the Russian *позеленеть от зависти* “turn green with envy”. The Japanese model, however, as well as Russian expressions *завидовать белой /черной завистью* “to envy with a white (i.e. *positive*)/black (i.e. *negative*) envy” do not offer the same semantic correlation. Phillip (2006:82) suggests that Italian *invidia* (envy) is less strongly associated with green than *rabbia* (anger).

mock // The meat it feeds on" (SW). This idiom does not, however, seem to be pervasive in speaking about jealousy since it appeared only 6 times in our data.

Taken together, specific ENVY mappings constitute 45.6 per cent of the total number of metaphoric expressions for *envy*. All event structure mappings (shown in Table 2.3 below) account for 51.2 per cent: 209 object metaphors, or 47.4 per cent and 17 location metaphors, or 3.9 per cent.

MAPPING: ENVY/BEING ENVIOUS IS X	EXAMPLES	N per 1000
	LOCATION	
1. LOCATION	X come to envy, X put sth down to envy, X move through Y's envy, X spend X's life in envy, X look on in envy, an area of envy, expansion of envy, envy between X and Y;	15 (11)
2. GROUND/ FOUNDATION	sth stem from envy, envy underlie sth, the soil of envy, ATTITUDE be based/founded on envy, EMOTION be derived from envy;	8 (6)
LOCATION TOTAL		23 (17)
	OBJECT	
1. POSSESSION	X have envy, X's envy, X be Y's envy, X be the envy of Y;	177 (129)
2. BEING ENVIOUS IS ACTING WITH AN OBJECT	X do sth with envy, sth be done with envy;	45 (33)
3. MOVING OBJECT	envy spread/reach/arise/go/pass through X/ drive/ grate through X/stir, envy replace EMOTION;	15 (11)
4. MOVED OBJECT	envy be misplaced/restored to a place/reinstated in a place/removed/ projected/carried/ heaped on, X attract envy;	18 (13)
5. OBJECT IN SOME LOCATION	there be envy in/about X, X induce envy in Y, EMOTION approach envy/be near envy;	5 (4)
6. THE INTENSITY IS PHYSICAL SIZE /QUANTITY	envy be in plentiful supply, a lot of/ little /some / extreme envy;	7 (5)
7. CAUSER	envy give rise to sth, envy make the world go round, envy be motivator/ motive, envy motivate X/drive X in;	8 (6)
8. INCOMPLETE OBJECT	n/a	0 (0)
9. PHYSICAL OBJECT	produce/create/provide ground for envy, get rid of/ avoid envy, win/deserve envy;	10 (7)
10. TRANSFERRED OBJECT	X give sth for envy;	(1) 1
OBJECT TOTAL		286 (209)
EVENT-STRUCTURE TOTAL		309 (226)

Table 2.3: Event-structure metaphor of ENVY from BNC

The frequencies from Table 2.2 let us conclude that most frequent mappings for ENVY are two sub-cases of the object system, namely, ENVY IS A POSSESSED OBJECT (29.2 per cent of the total) and BEING ENVIOUS IS ACTING WITH AN OBJECT (7.5 per cent). Although the proportional distribution of specific *vs.* event-structure metaphor of ENVY (45.6 % *vs.* 51.2%) is somewhat closer to the respective distribution of these 2 classes of metaphors across basic emotions in Stefanowitsch (2006), the tendency to conceptualize ENVY via specific rather than general mappings can nevertheless be observed.

Taken together, specific and event-structure metaphors bring the coverage to 96.9 per cent. The remaining 3.1 per cent are made up by 17 (14) examples instantiating 10 less frequent mappings shown in Table 2.4.

MAPPING:	EXAMPLES	N per 1000
ENVY/BEING ENVIOUS IS X:		
BODILY PART	envy be fingers, envy be a member of X's body;	3 (2)
PROCESS	stages/dynamics of envy;	3 (2)
COLOUR	white/black envy;	3 (2)
FOOD	sth feed on envy;	1 (1)
WEIGHT	millstone envy;	1 (1)
BOND	envy fasten upon sth;	1 (1)
HEALTH	envy be preservative;	1 (1)
DIRT	unstained with envy;	1 (1)
ORDEAL	X survive envy;	1 (1)
GEMSTONE	facets of envy	1(1)
TOTAL		17 (14)

Table 2.4: Infrequent mappings of ENVY from BNC

Therefore, the BNC-based identification of metaphoric expressions associated with ENVY has revealed little difference in the actual mappings construing both emotion concepts under investigation. Nevertheless, the analysis suggests that the difference in JEALOUSY *vs.* ENVY metaphoric conceptualization is rather a quantitative than a qualitative one.

3.4 JEALOUSY- and ENVY-Specific Metaphors

As shown in the preceding sections, qualitative variation in JEALOUSY and ENVY metaphors amounts to 2 specific and one event-structure mapping. Thus, the actual usage of any of the metaphors with an emotion lexeme cannot in all possibility provide any valuable insight into the culturally-specific conceptualization of the respective emotion concept as "(...) given a large enough corpus, all metaphors will be instantiated for all emotions"

(Stefanowitch 2006:40). Culturally-bound conceptualizations can therefore be assessed via identifying statistically significant associations of particular source domains with particular emotion domains. To identify them, I cross-tabulated the frequencies of occurrence of each of the 56 metaphoric mappings found with *jealousy* and/or *envy* against the frequency of occurrence of all other mappings and then submitted them to a series of Fisher exact tests. Since this involves the process of multiple testing, the levels of significance were corrected according to the standard procedure of dividing them by the total number of tests performed, i.e. 56 in this case. Distribution statistics has revealed that there are 8 conceptual metaphors (i.e. 14 per cent of the total number of mappings used to construe *jealousy* and/or *envy*) that quantitatively differentiate between the two lexemes under investigation, which testifies to the fact that the concepts of ENVY and JEALOUSY are somewhat conflated in the English language. However, 14 per cent are a relatively good result for contextual near-synonyms if compared for instance, to 4 per cent of mappings that distinguish between *joy* and *happiness* (Stefanowitsch 2006:48).

Five out of eight metaphors have been found to be significant for JEALOUSY. The most strongly associated metaphor among these is JEALOUSY-IS-DISEASE/PAIN/PHYSICAL ANNOYANCE ($p=1.49E-5 \leq 1.79E-5^{***}$). The regularity of the recurrent mapping between the abstract target domain of JEALOUSY and the concrete source domain of DISEASE results in a detailed elaboration of the concept of JEALOUSY via the DISEASE cognitive scenario/script where JEALOUSY is seen as an extremely painful state (e.g. *X feel a pang/twinge of jealousy, torments of jealousy, nagging/niggle of jealousy, jealousy be pain/painful, jealousy reach painful extreme, debilitating jealousy, etc.*) which predominantly comes all of a sudden (e.g. *the fit of jealousy, X do sth in a fit of jealousy, X be seized with jealousy, jealousy seize X, a bout of jealousy, etc.*), causes great suffering to its experiencer (e.g. *X suffer from jealousy, spasms of jealousy, jealousy be intolerable, sth assuage jealousy, torments of jealousy, etc.*) or even brings about death (e.g. *X die of jealousy, jealousy plague X*). This observation does not, however, suggest that the observed significance of the DISEASE source domain for conceptualizing JEALOUSY is an exclusively Anglo phenomenon. A brief look at the collocation statistics (Leipzig Corpus) of the translation equivalents of *jealousy* and *envy* in other European languages reveal that the former is also thought of in terms of physical pain or disease. This can be illustrated by the significance of the French adjectives *maladive*

“sick” (84), *morbid* “morbid” (16), and *pathologique* “pathological”(9) as significant co-occurrences of the French noun *jalousie* that do not feature as frequent with the French noun *envie*²⁴. The German noun *Eifersucht* “jealousy” is significantly frequently modified by the adjectives *krankhaft* “sick, unhealthy” (67), *pathologisch* “pathological”(6), *quälend* “painful, poignant”(6), *wahnhaft* “delirious” (6), *tödlich* “mortal, deadly”(4), which is not the case with the noun *Neid* “envy”.

Interestingly, together with conventional conceptualizations of such bodily parts as heart, eyes, voice or elements of psyche such as mind or brain as containers/seats for emotions in many languages (cf. Kövecses 1990: 172, Csábi 2005, Mikolajczuk 1998, Niemeier 1997), metaphoric patterns referring to the DISEASE mapping suggest that JEALOUSY is also thought of as being located in the stomach and/or as causing stomach aches (e.g. *jealousy tighten X's stomach muscles*, *X's stomach be clenched with jealousy*, *jealousy coiling like acid in X's stomach*, *there be jealousy in the pit of X's stomach*, etc.). Similar patterns are lacunal in metaphoric conceptualization of *envy*. The only basic emotion term that was found to be conceptualized via a similar pattern is *fear*, as in *X's belly churn with fear* (Stefanowitsch 2006:87). This can possibly be accounted for by the fact that metaphoric *heart-*, *mind-*, *eyes-* and other patterns are perceived as somewhat trite in the English language which in some contexts evokes the necessity to express the painfulness of JEALOUSY in a novel way.

Another related metaphor for JEALOUSY consistent with the DISEASE mapping and following it closely in its association strength is JEALOUSY-AS-INSANITY/FOOLISHNESS ($p=4.4E-5 \leq 1.79E-4^{**}$). That this metaphor has reached the corrected levels of significance confirms its central place for JEALOUSY accorded to it in linguistic literature on emotions (Lakoff et al. 1991:146). Moreover, MADNESS mapping for JEALOUSY is consistent with the criterion of intensity of emotions as all strong feelings are assumed to be verbalized via MADNESS/INSANITY metaphorical scheme (Lakoff et al. 1991:146).

That the concept of JEALOUSY is thought of as a kind of madness has its parallels in psychiatry, where ‘morbid/delusional jealousy’ (dubbed in popular usage as ‘Othello syndrome’) is recognized a clinical condition

²⁴ It seems important to note that French *envie* means both “envy” and “desire” which of course has its impact on collocation statistics.

viewed upon as “the result of a number of psychopathologies within separate psychiatric diagnoses” (Kingham/Gordon 2004:207). Experiences of ‘morbid jealousy’ have been reported widely in individualistic cultures of Europe, North America and Australia, i.e. cultures that place great value on the exclusive ownership of a partner and where dyadic marriages are norm. This can suggest that the translation equivalents of English *jealousy* in other European languages will also show a tendency to be construed in terms of pain, disease or madness. Conversely, in cultures that put no emphasis on the exclusiveness in a partner’s possession, like the polyandrous Nyinba people of Nepal (Ratner 1996), respective languages are not likely to show the significance of the DISEASE/MADNESS metaphors in verbalizing corresponding emotional experience.

The intensity of JEALOUSY is further developed in the FIRE metaphor ($p=4.5E-4 \leq 8.9E-4^*$). Importantly, with respect to this mapping the concepts of JEALOUSY and ENVY differ qualitatively as well. Consider the patterns instantiating the FIRE metaphor for ENVY and JEALOUSY from BNC:

(3a) X stoke up envy, envy be fanned, X burn with envy;

(3b) flash/spark of jealousy, X be inflamed with jealousy, kindle/inflame X’s jealousy, searing jealousy, a fiery ball of jealousy, jealousy fire X’s imagination;

Whereas in (3a) the FIRE patterns with *envy* conceptualize the respective concept as a low- or steady-burning fire which might become greater due to some external effort, in (3b) corresponding patterns with *jealousy* tend to verbalize it as a fire that is very bright and intense.

The DISEASE/PAIN metaphor found across emotion terms and implying that the subject of an emotion is experiencing “abnormal” (ranging from unpleasant to extremely painful) sensations is semantically related to another mapping that reached the corrected levels of significance for JEALOUSY, the WEAPON/SHARP OBJECT ($p=2.6E-4 \leq 8.9E-4^*$), which conceptualizes JEALOUSY as an object capable of inflicting serious damage on the experiencer and producing, thus, excruciating pain. Once again, in the case of JEALOUSY this metaphoric pattern seems to be elaborated in a variety of images attributed to JEALOUSY as, for instance, in the indications of the type of the weapon as explicated by nouns (e.g. *jealousy be stagger, knife, spear*) or verbs (*jealousy stab/pierce/lance/shoot through X*). The corresponding ENVY

patterns (only 3 instances in the BNC sample for *envy*) suggest that ENVY-AS-A-WEAPON mapping is of a somewhat subdued quality as in *a stab of envy* (appearing only twice in the total sample) and a rather ambiguous *a target of envy*. Similarly, the Web Corp search revealed no patterns that would refer to ENVY as *a knife/dagger/spear* returning instead only one relevant instance of *minor pricks of envy*.

The last mapping that is significantly stronger associated with JEALOUSY is (HOT) LIQUID (IN A CONTAINER UNDER PRESSURE) ($p=3.09E-4 \leq 8.9E-4^*$). The analogous ENVY mapping, as discussed in 3.2, is present in the form of the LIQUID metaphor and refers exclusively to bodily fluids. An informal Web Corp search has revealed some other patterns referring to the FLUID-INSIDE-THE-HUMAN-BODY scheme for ENVY such as *X purge X-self of envy*, *envy simmer in X's heart*, *X be brewing with envy*. It also revealed a very infrequent (only one instance) pattern *source of envy*, which provides additional evidence of infrequency of the FLUID mapping in conceptualizing ENVY in general.

Three out of 56 metaphors in the JEALOUSY-ENVY cross-table have been found to be stronger associated with *envy*. The most significantly associated metaphors are ENVY-IS-A-POSSESSED-OBJECT mapping ($p= 8.13E-18 \leq 1.79E-5^{***}$) and ACTING ON ENVY IS ACTING WITH AN OBJECT ($p=1.17 E-12 \leq 1.79E-5^{***}$). Before the discussion of these mappings in more detail, note that both metaphors mentioned above belong to the OBJECT system, which stresses the necessity of including the event-structure metaphors in the corpus-based study of metaphoric representations.

That the POSSESSED-OBJECT metaphor has proved to be significant for ENVY is an interesting fact in itself since none of the basic emotion terms in Stefanowitsch (2006) have manifested a similar tendency. Moreover, it is noteworthy that the vast majority of individual metaphoric expressions instantiating this general metaphor follow the pattern of '*envy of + collective noun*' (e.g. *envy of the world/neighbours/the rest of the UK/thousands of comedians/most/the civilized world*, etc.), which appears to play down envy as a personal feeling suggesting instead that it is more likely to be experienced by many subjects in response to one situation or stimulus. Interestingly, this finding complies rather well with the notion of 'excusable general envy' posited in Rawls (1971:534), an author on the Theory of Justice, who supposes

that the main root of people's liability to envy lies in the societal structure: envy will be more severe and more pervasive the greater the (economic) differences between subjects and those they envy; thus, in a well-ordered society, he presumes, pervasive envy will not be the case since, firstly, the liberties and political status of equal citizens encourage self-respect even when one is less well off than others. Second, he suggests that background institutions (including a competitive economy) make it likely that excessive inequalities will not be the rule. The British English language data, however, suggest that, given this in view of the rationale of the relation between the pervasiveness of envy and societal inequalities, the latter should have been great in the UK for such a language construal of ENVY to appear. Whether highly hierarchical in the past centuries British society had indeed contributed to such a construal is a question difficult to solve here; nevertheless, it is also possible to interpret the "collective sense" of envy as an attempt to 'justify' this emotional experience by ascribing it linguistically to many experiencers at a time rather than to an individual one.

BEING ENVIOUS IS ACTING WITH AN OBJECT, which is lacunal in the metaphoric conceptualization of JEALOUSY in our data, can be interpreted along the cultural-behavioural lines. 17 out of 33 instances, i.e. more than 50 per cent of corresponding patterns contain the verbs of the semantic group of "ways of looking" in the "acting" slot (i.e. *watch/glare/see/eye/view/regard with envy*). This appears to point at the conceptual interrelation between the notions of "envy" and the "evil eye", a widely distributed element of folklore, in which it is believed that the envy elicited by the good luck of fortunate people may result in their misfortune, whether it is envy of material possessions including livestock, or of beauty, health, or offspring. Defining the "evil eye" as a "curiosity", "though not unworthy to be thought of in the fit place", Francis Bacon nevertheless acknowledges the belief in evil eye as pervasive in culture:

"We see likewise the Scripture calleth envy an *evil eye*; and the astrologers call the evil influences of the stars *evil aspects*; so that still there seemeth to be acknowledged, in the act of envy, an ejaculation or irradiation of the eye. Nay some have been so curious as to note that the times when the stroke or percussion of an envious eye doth most hurt are when the party envied is beheld in glory or

triumph; for that sets an edge upon envy: and besides, at such times the spirits of the person envied do come forth most into the outward parts, and so meet the blow" (Bacon 1909-14).

Etymologically, the noun *envy* in the English language has developed from the verb to denote 'evil looking': the lexeme *envy* comes via Old French from Latin *invidia*, from *invidēre* "to eye maliciously", "to look askance", "to cast an evil eye upon" (ED). This conceptual correlation does not seem to be a uniquely Anglo phenomenon, as "evil eye" is a cross-cultural concept found in various non-related societies and languages²⁵.

On a more general level, both object-like metaphors considered above conceptualize ENVY as an object potentially manipulated by the experiencer and which thus can be viewed upon as a relatively easily controllable emotion, i.e. such that can be directed at the envied party at will of the experiencer. Similarly to the majority of basic emotion terms *envy* appears to prefer the OBJECT to the LOCATION model. As is tentatively posited in Stefanowitsch (2006:45) more controllable emotions are conceptualized via the OBJECT model (where the emotion is seen as an object that can potentially be manipulated by the experiencer) whereas less controllable emotions would tentatively prefer the LOCATION model (where the emotion is seen as a location surrounding the experiences on all sides). In contrast to *jealousy*, *envy* shows a more significant association strength not only with selected object metaphors but also with the class of the object metaphors on the whole ($p=7.6E-22 \leq 1.79E-5^{***}$).

Finally, the only specific mapping significant for ENVY when contrasted to JEALOUSY is BEING ENVIOUS IS BECOMING GREEN IN COLOUR ($p=1.27E-4 \leq 1.79E-4^{**}$) discussed previously in subsection 3.3.

²⁵ In most languages the name translates literally into English as «bad eye», «evil eye», «evil look», or just «the eye». Some variants on this general pattern from around the world are: Arabic *دسح نبي ع* *ayin hasad* "eye of envy"; Turkish *nazar* or *kem guz* («stare» and «evil eye», respectively), Yiddish *aynare* or *ahore*, from Hebrew *תַּיִן דַּחַת* *ayin hara*; Hungarian *szemmel verés* «beating with eyes»; Tagalog *ohiya* or *mata ng diablo* «the devil's eye»; Romanian *deochi* «from the eye»; Urdu *buri nazar* or simply *nazar* «bad eye» or simply «eye»; Polish *oko proroka* «the eye of the prophet»; Sicilian (also Italian) *jettatura* «casting» [of evil from the eye]. Brazilian Portuguese has *olho gordo* «fat eye» or *quebranto* «breaker». In Spanish, the phrase is *mal de ojo* «the eye's curse». In Greek, to *matiasma* or *mati* someone refers to the act of cursing someone with the evil eye (*Mati* being the Greek word for eye). In Persian people use *cheshm zakhm* which means «wound from the eye» (WP).

4. SECONDARY vs. BASIC EMOTIONS in their metaphoric conceptualization in English

Scientific literature that sets apart “basic” vs. “secondary” emotions (predominantly, emerging in the interactionist and naturalistic paradigms in English-speaking psychological literature) posits several criteria on which such a differentiation should be grounded. First and foremost, the criterion of “uniquely-human” vs. “non-uniquely-human” is postulated implying, thus, that some (i.e. basic) emotions can be experienced across species other than humans, while some (i.e. secondary) emotions are reserved exclusively to people. Secondly, primary emotions are assumed to have corresponding (easily recognizable) facial expressions and are, therefore, accessible to observation. The basic emotions are also attested as appearing early in human development and not long-lasting in contrast to “secondary” emotions that are assumed to last longer and appear later in humans’ life through the acquisition of moral and cognitive resources. While primary emotions are expected to involve low degrees of both morality and cognition, and should be caused by external events, the appraisal of secondary emotions relies on the internal interpretation of the situation rather than on the situation itself (Averill 1982). With these criteria in mind, an empirical psychological study into lay conceptualizations of basic and secondary emotions attempted to test whether these coincided with the respective conceptions of emotions in scientific literature (Demoulin et al. 2004). In this study the total of 448 emotions in 4 languages (French, Dutch, American English and Spanish) have been studied via an elaborated questionnaire of 13 points which asked the subjects to rate each of the emotion terms on a 7-point scale with reference to the following aspects: humanity, culture, visibility, age, duration, morality, cognition, cause, desirability, acceptability, gender, intensity and sensitivity (Demoulin et al. 2004:78-79). Crucially, this study arrived at the conclusion that “people from all samples not only differentiated between “uniquely” human” and “non-uniquely human” emotions on a continuum, but they did so on the same basis as the one used by emotion scientists to distinguish between “primary” and “secondary” emotions” (Demoulin et al. 2004:71, emphasis added).

Nevertheless, the grounds upon which some emotions are classified as falling into either class seem to be provisional in many cases. In relevance to our case studies, it might be in this context quite rightfully asked why (in English-

speaking psychological works at least) the feeling/emotion of *jealousy*, for instance, is classified as a “non-basic” emotion (cf. Ekman 1998:60, 213, 260). Numerous findings about the manifestations of jealousy run counter to such a classification²⁶. First and foremost, contrary to the claim of non-universality of secondary emotions, jealousy has been reported to be found in every culture (Buss 2000, White/Mullen 1989) and have evolutionary dimension ensuring the survival of the species (Harris 2004:64). Moreover, jealousy has been shown to be observed in infants as young as 5-6 months old, appearing, thus, quite early in human’s development (cf. Draghi-Lorenz 2000, Shackelford et al. 2004, Hart 2002, 2004). Critically, some very recent studies into non-primate animals have provided good empirical evidence that dogs at least demonstrate behaviour that is very similar to human jealousy (Morris, to appear). Defining parental/romantic love, jealousy, envy and hatred as “affective phenomena”, “emotional plots” rather than emotions, Ekman offers a rather provisional reason for this:

“Emotions are brief and episodic, lasting seconds or minutes. Parental love, romantic love, hatred, envy or jealousy last for much longer periods – months, years, a lifetime for love and hatred, and at least hours and days for jealousy and envy” (Ekman 1998:83).

This durational criterion for differentiation between jealousy or envy, on the one hand, and sadness or anger, on the other, seems to be rather questionable. Following Ryle (1961), the emotion terms like *anger*, *jealousy* and others are likely to have both a dispositional and an episodic senses. In the dispositional sense someone can be jealous for 40 years ever since, for instance, his brother stole his sweetheart in high school (Sabini/Silver 2005b:701), but it is in the episodic sense that someone can have periods of *acute jealousy* or experience *pangs of jealousy*. Linguistically, numerous metaphoric patterns associated with *jealousy* discussed in 3.2 make reference exactly to the episodic sense, as, for instance, the expressions falling into the group of the DISEASE and SHARP OBJECT/WEAPON conceptual metaphors (e.g. *X throw a fit a jealousy, bout/spasms of jealousy, jealousy pierce/lance/shoot through X*) as well as some patterns instantiating the (HOT) LIQUID (e.g. *surge/outbursts of jealousy*), the

²⁶ In this context it seems appropriate to add that a presumably non-basic emotion of *shame* is hypothesized in some anthropological linguistics works as a universal one: “All languages have words overlapping (though not identical) in meaning with the English words angry, afraid and *ashamed*” (Wierzbicka 1999:36, emphasis added).

LIGHT (e.g. *a flicker of jealousy*) or the AIR (e.g. *X give vent to jealousy*) mappings.

The attested difficulty in singling out any unequivocal parameter that would apply to the *basic* vs. *secondary* emotion differentiation, it is of a great interest (as well as novelty) to investigate whether the distinction between “basic” and “secondary” emotions can manifest itself systematically in the language *per se*. More specifically, it appears critical to assess if there are metaphoric conceptualizations of emotions (explicating presumably the corresponding “folk theories” (term after Kövecses (1999)) or lay conceptualizations of emotions) more pertinent to either of the two groups. Put more broadly, it would be challenging to test whether emotion scientists as well as ordinary people speaking a language can to some extent be “prompted” to distinguish emotions as “primary” and “secondary” by the language itself.

Evidently, for claiming such a distinction on the conceptual and language level does exist the data of numerous languages should be expected to be analyzed. This study, however, narrows the question to whether the English language suggests such a distinction between conceptualizations of “primary” and “secondary” emotions. The confinement of the study to the only language is not viewed as a major drawback here since (academic) English is the predominant language in the field of the emotion research.

With this in view, the prediction verified in this subsection is whether “basic” vs. “secondary” emotions’ metaphoric conceptualization in the English language will reveal systematic significant differences in conceptual mappings most/least strongly associated with the either group of lexemes embodying respective emotion concepts.

The first question to be asked here is whether there are any conceptual metaphors that can be viewed as consistent with the criteria posited to differentiate between basic and social emotions in scientific literature. Bearing in mind the grid of conceptual metaphors identified as construing emotion concepts here and in Stefanowitsch (2006) it appears that in all likelihood the EMOTION-AS-(NON)VISIBLE OBJECT mapping (with non-visibility pertinent to social emotions) can be assumed as consistent with the criterion of

visibility from Demoulin et al.'s questionnaire (2004)²⁷. Furthermore, the *humanity* dimension²⁸ of secondary emotions can be reflected in that the corresponding lexemes would be found more frequently within EMOTION-AS-HUMAN-BEING mapping. Conversely, the PERSON-EXPERIENCING-EMOTION-IS-AN-ANIMAL metaphor can be expected to show greater association strength with the basic rather than social emotion terms. EMOTION-AS-WRONGDOING metaphor found so far as construing JEALOUSY and ENVY can be congruent with the *morality* criterion²⁹, since this mapping implies the idea of moral judgement imposed on emotional experience. The EMOTION-AS-ENEMY mapping can be considered consistent with both criteria of *morality* and *acceptability*³⁰ of public displays of emotional experience, as it seems to suggest that the experiencer of an emotion struggles to suppress it because either the emotion is perceived as somewhat criticized in a culture or the cultural norms ban its open display. Additionally, one can also hypothesize a stronger correlation of "secondary" emotion lexemes with the MIXED/PURE SUBSTANCE mapping, as this metaphor is explicitly used with reference to emotions in psychological literature:

"This (...) approach makes the assumption that a small number of emotions are considered primary or fundamental or basic, and that all other emotions are secondary, *derived mixtures*, or *blends* of the primary ones. From this perspective, one needs to identify the basic emotions and then explain which *mixed emotions* or *blends* are derived from them" (Plutchik 1994:54, emphasis added).

In this logic, the set of secondary emotions would be expected to manifest themselves more frequently in the MIX mapping while basic emotion lexemes would prefer EMOTION-AS-THE-PURE SUBSTANCE metaphor.

²⁷ The question was asked as "When a person experiences this characteristic, to what extent do you believe that another person would be able to detect it, that is to say, to what extent is this characteristic visible in the eyes of an observer?" (Demoulin 2004:79).

²⁸ The corresponding prompt was: "In your judgement, is the ability to experience this characteristic exclusive to human beings or can animals also experience it? (Demoulin 2004:79).

²⁹ This criterion was explicated as follows: "Does the fact that people experience this characteristic gives us, in your judgement, any idea about their moral nature, about their morality?" (Demoulin 2004:79).

³⁰ The latter was explicated in the questionnaire as: "In your opinion, to what extent is the public expression of this characteristic acceptable?" (Demoulin 2004:79).

4.1 Method

I cross-tabulated the frequencies of all 35/35 metaphors found with JEALOUSY/ENVY³¹ against the corresponding frequencies of the same mappings with prototypical basic emotions analyzed in Stefanowitsch (2006)³². In this testing, the event-structure metaphors were considered as two broad sets as, firstly, the cited study does not provide exact figures for each subtype of the event-structure metaphors, and, secondly and more importantly, the event-structure metaphors are not of a substantial relevance for the hypothesis tested here as certainly are the specific mappings mentioned above as potentially relevant to the selected criteria distinguishing primary vs. secondary emotions. Since the focus of this subsection is finding larger-scale differences between two sets of emotion terms, the frequencies of conceptual metaphors for basic emotions were added and tests were performed using these totals against the frequencies of individual social emotion lexemes. Thus, each mapping's frequency for JEALOUSY/ENVY was cross-tabulated, on the one hand, against the frequencies of all other JEALOUSY/ENVY mappings in the respective BNC samples and, on the other, against the total frequencies of the corresponding mappings found with basic emotion lexemes. Since conceptual metaphors in this paper embrace somewhat broader sets of individual metaphoric expressions (e.g., in contrast to Stefanowitsch (2006), the DISEASE, the PAIN and the PHYSICAL ANNOYANCE are treated here as one conceptual metaphor) the corresponding frequencies from the cited study were added in order to be comparable to the ones posited here.

This analysis revealed some mappings that have shown to be more strongly associated with both JEALOUSY and ENVY. Since for claiming that exactly these mappings differentiate the metaphoric conceptualizations of basic vs. secondary emotions one needs a broader set of tested conceptualizations, I chose three additional emotion lexemes that embody the respective prototypically secondary emotion concepts (SHAME, GUILT and PRIDE). Apart from equalizing the number of emotions words in both sets to five, this

³¹ Identical number of JEALOUSY and ENVY conceptual metaphors is coincidental since, as shown in 3.2 and 3.3, these concepts differ somewhat in their metaphors.

³² The cited study deals with metaphors for the concepts of ANGER, FEAR, SADNESS, DISGUST and HAPPINESS (studied as represented by the noun *joy*). Together with SURPRISE, these emotion concepts are known in the literature as *the Big Six* and are commonly viewed upon as prototypical basic emotions.

choice seems to be rather favourable in the qualitative aspect since each of the sets will then comprise four generally negatively connoted emotion lexemes (*anger, fear, sadness* and *disgust* vs. *shame, guilt, envy* and *jealousy*) and one generally positively connoted emotion lexeme (*happiness* vs. *pride*)³³. The BNC concordance lines of the additional emotion words (*shame, guilt* and *pride*) were then searched for verbal manifestations of the mappings that proved significantly associated with *envy* and *jealousy*. To conform to the principles of testing used here the totals of metaphoric expressions with *shame, guilt* and *pride* were also identified. The observed frequencies were then again submitted to a series of Fisher exact tests against the corresponding frequencies of mappings for basic emotion lexemes. In each case, the levels of significance were corrected according to the number of tests performed.

4.2 Results

Fourteen out of thirty-five JEALOUSY mappings reached the corrected levels of significance in JEALOUSY/BASIC EMOTIONS cross-table. Similarly to the contrast with ENVY, the most strongly associated JEALOUSY metaphor when contrasted to the set of basic emotions is JEALOUSY IS DISEASE ($p = 7.44E-34 \leq 2.9E-5^{***}$), followed by the INSANITY mapping ($p=3.37E-16 \leq 2.9E-5^{***}$). Another set of metaphors that differentiate between JEALOUSY and basic emotions comprises three related mappings, namely, JEALOUSY IS OPPONENT IN A STRUGGLE ($p=5.69E-12 \leq 2.9E-5^{***}$), the SHARP OBJECT/WEAPON ($p=5.08E-15 \leq 2.9E-5^{***}$) and the DESTRUCTIVE FORCE mappings ($p=3.77E-8 \leq 2.9E-5^{***}$), which is not surprising since these mappings have displayed considerable base frequencies in the initial JEALOUSY chart (Table 1.1). Similarly to *envy* contrasted to *jealousy*, basic emotions have turned out to be less strongly associated with the FIRE and the (HOT) FLUID IN THE

³³ To be more precise, the emotion word *pride* in its current usage in English encompasses two distinct and confusing senses (cf. Scheff 2004). One is negative, with an inflection of arrogance or hubris as in the proverbial "*Pride goeth before the fall*", which is reminiscent of conceptualization of pride as one of the Seven Deadly Sins (DPF). However, in many contexts it is positive (e.g. when preceded with adjectives like *justified, authentic* or *genuine*) as Western civilization of which the Anglo culture is a part tends to stress the fundamental notions of *individualism, self-autonomy, personal achievement*, which results in the high axiological status of pride as "proper sense of own value" or "satisfaction with self when having or achieving something other people admire". For a more detailed analysis of the conceptualization of PRIDE in its VICE-VIRTUE dimension see also (Tissari 2006b).

CONTAINER metaphors ($p=1.8E-5$ and $p=1.1E-6^{***}$, both $\leq 2.9E-5^{***}$, respectively) that are generally consistent with the criterion of intensity of emotions. This may initially suggest that jealousy is perceived as a more intense feeling than any emotion on the basic emotion list. Among other mappings significantly strongly associated with JEALOUSY are JEALOUSY IS MIXED/PURE SUBSTANCE ($p=2.9E-5 \leq 2.9E-4^{**}$), FIERCE/CAPTIVE ANIMAL ($p=2.8E-9 \leq 2.9E-5^{***}$), HUMAN BEING/(SLEEPING) ORGANISM ($p=1.42E-11 \leq 2.9E-5^{***}$) and GORGE ($p=3.98E-7 \leq 2.9E-5^{***}$).

Finally, three mappings that did not initially show considerable base frequencies in the JEALOUSY chart in Section 3.2 were nevertheless found significant when contrasted to the basic emotions set. These mappings include (UN)MASKED OBJECT ($p=1.39E-7 \leq 2.9E-5^{***}$), OBSTACLE/BARRIER ($p=1.3E-6 \leq 2.9E-5^{***}$), WRONGDOING/SIN ($p=1.27E-5 \leq 2.9E-5^{***}$).

Twice fewer mappings, i.e. 7, have reached the corrected levels of significance in ENVY-BASIC EMOTIONS cross-table. These are ENVY IS A DISEASE ($p=1.05E-5 \leq 2.9E-5^{***}$), ENVY IS AN OPPONENT IN A STRUGGLE ($p=9.5E-6 \leq 2.9E-5^{***}$), ENVY IS A MIXED/PURE SUBSTANCE ($p=2.5E-6 \leq 2.9E-5^{***}$), HUMAN BEING/SLEEPING ORGANISM ($p=2.23E-13 \leq 2.9E-5^{***}$), (UN)MASKED OBJECT ($p=2.92E-9 \leq 2.9E-5^{***}$), MECHANISM ($p=5.4E-5 \leq 2.9E-4^{**}$), BECOMING GREEN IN COLOUR ($p=6.95E-18 \leq 2.9E-5^{***}$).

It is important to note that both JEALOUSY and ENVY are significantly less strongly associated with LOCATION metaphors than basic emotions ($p \leq 2.9E-5^{***}$). This finding suggests that, since less controllable emotions are assumed to prefer the LOCATION scheme where the emotion is seen as a location surrounding the experiences on all sides, both JEALOUSY and ENVY are conceptualized as more controllable emotions than basic ones.

In total, five specific mappings have shown to be more strongly associated with both JEALOUSY and ENVY vs. basic emotion concepts. Importantly, four of them (the DISEASE/PAIN, the ENEMY, the MIXED/PURE SUBSTANCE, the HUMAN BEING/ORGANISM) mappings are used in verbalizing basic emotions. Crucially, three of them (the DISEASE, the ENEMY and the MIX mappings) are used to construe *each* of the basic emotions. Since EMOTION-IS-AN-(UN)MASKED OBJECT mapping was not posited as a separate one in the study from which the frequencies for comparisons are derived in this paper, it will be omitted in the formal statistical testing presented here. The

frequencies of the remaining 4 mappings across basic emotion terms are quoted in Table 3.1.

Mapping/Emotion	ANGER	FEAR	JOY	SADNESS	DISGUST	TOTAL
DISEASE	25	17	5	4	10	61
ENEMY	47	35	7	15	19	125
MIX	17	9	19	42	13	126
HUMAN/ ORGANISM	10	9	0	1	0	19
Total N of MP in 1000 sample	1443	886	906	716	747	4698

Table 3.1: Distribution of the selected specific metaphors across prototypical basic emotion terms (Stefanowitsch 2006)

The MPA of the hits returned by BNC for *shame*, *guilt* and *pride* has shown the following distribution of the selected mappings across the social emotions set:

Mapping/Emotion	SHAME	GUILT	PRIDE	JEALOUSY	ENVY ³⁴	TOTAL
DISEASE	41	76	68	68	20	273
ENEMY	41	63	49	48	29	230
MIX	14	25	19	30	28	116
HUMAN/ ORGANISM	19	23	30	22	22	116
Total N of MP in 1000 sample	568	869	1191	553	442	3623

Table 3.2: Distribution of the selected specific metaphors across prototypical social emotion terms (BNC)

The cross-tabulation of the SHAME mappings with the frequencies from Table 3.1 and further statistical analysis have shown that three out of four metaphors have reached the corrected levels of significance: DISEASE ($p=5.89E-15 \leq 2.5E-4^{***}$), ENEMY ($p=1.86E-8 \leq 2.5E-4^{***}$), HUMAN/ORGANISM ($p=2.73 E-9 \leq 2.5E-4^{***}$).

Critically, both PRIDE and GUILT cross-tabulation with the basic emotions and further statistical analysis have shown that *the same three* out of four mappings from Table 3.2 have reached the corrected levels of significance: DISEASE ($p_{pride}=1.29 E-16$, $p_{guilt}=1.2 E-27$, both $\leq 2.5E-4^{***}$), ENEMY ($p_{pride}=2.01E-3 \leq 2.5E-3^{**}$ and $p_{guilt}= 2.165 E-11 \leq 2.5E-4^{***}$), HUMAN/ORGANISM ($p_{pride}= 7.49 E-10$ and $p_{guilt}= 8.95 E-9$, both $\leq 2.5E-4^{***}$).

³⁴ For illustrative purposes the table also features the relevant frequencies for JEALOUSY and ENVY.

Before interpreting these results, it should be noted that there is obviously no within-group uniformity in frequencies of individual mappings across the set of social emotions. Similarly to the results presented in Stefanowitsch (2006), five social emotion terms analyzed here differ significantly in their association to four metaphors at hand ($X^2=30.49$, $df=12$, $p\leq 0.01$).

4.3 Discussion

The fact that the MIX metaphor has not proved to be significantly associated with either group of emotion words suggests that everyday language does not conceptualize some emotions as “pure” and some as “mixtures”. As William James (1890:485) noted, we know from introspection that, on the one hand, we are capable of a great variety of feelings, and on the other, that these different feelings are not clearly separated from one another.

The mappings that proved strongly associated with exclusively “secondary” emotions comply rather well with some of the criteria posited in the scientific literature for differentiating them from “primary” ones. The EMOTION-AS-A-HUMAN mapping working along the personification and ‘whole-part’ metonymy lines is consistent with the ‘*uniquely-human*’ criterion where “secondary” emotions are presumed to appear exclusively in human beings. It should however be noted that the HUMAN mapping identified for secondary emotions under study also embraced the instances of verbalization of the (SLEEPING) ORGANISM metaphor as in ‘*arouse EMOTION*’ pattern identified for basic emotions in Stefanowitsch (2006:22) on the grounds that it can refer to humans as well as to any other (unspecified) organisms. These instances, however, constitute a rather insignificant (if any) number in the realization of the HUMAN/SLEEPING ORGANISM mappings in the investigated samples: *jealousy* (3), *envy* (1), *guilt* (2) *shame* (0), *pride* (2) and thus cannot influence the final results.

The HUMAN BEING metaphor conceptualizes any secondary emotion in a variety of ways, as, for instance, as A CHILD³⁵ (e.g. *foster/nurse EMOTION*) and/or A HUMAN BEING subject to processes like being born, dying, ageing, delivering offspring (e.g. *EMOTION be born/die/cease to exist, old EMOTION*,

³⁵ Interestingly, the CHILD metaphor was also posited as conceptualizing HOPE (Lakoff et al. 1991:151) which can be seen, in contrast to ANTICIPATION (a basic emotion on Plutchik’s list (1980)), as a cognitively-based uniquely-human phenomenon.

children of EMOTION), having exclusively human organs (e.g. EMOTION *go hand in hand*, *the face of EMOTION*, EMOTION *sneer with trumpeter's lips*, EMOTION *pale*, *portrayal of EMOTION*, *naked EMOTION* etc.), being engaged in human rituals (e.g. EMOTION *marry/have its party/share the feast/play tag*, EMOTION *be a bedfellow*, etc.) or indulging in human activities (EMOTION *be a vagrant*). More importantly, the language data attribute purely human features to secondary emotions (e.g. *lonely/irritated/avuncular/grim/honest/navel-gazing/stern-faced/sympathetic/avid/austere/conscious/magnanimous/wistful* EMOTION) or suggest that personified emotions are capable of cognitively-based actions (e.g. EMOTION *know/admit/demand/insist/be willing/wish/say/mock* etc.)³⁶ Therefore, that the English-speaking scientists are so reluctant to attribute “secondary” emotions to non-human species can to some extent be tentatively explained by the respective cultural models of “secondary” emotions encoded in English where these emotions are construed as human beings capable of complex mental processes and patterns of behaviour that by semantic incongruence cannot be applied to nonhumans.

In this context, it should have been expected that EMOTION-IS-ANIMAL metaphor would manifest a greater association strength with basic emotion terms than with social ones. That this did not happen in our analyses seems to suggest that FIERCE/CAPTIVE ANIMAL metaphor is not a good choice for assessing whether in folk conceptualizations entities construed via this metaphor are viewed upon as attributable to nonhumans. Rather, it appears that that idea of animals being capable of experiencing an emotion is more likely to be expressed via animal simile-like metaphoric patterns, e.g. *jealous as a cat* or *angry as a bull* as these expressions make an explicit reference to an animal as a prototype of an experiencer of an emotion. Since BNC data for the “*being (emotional) as a-*” pattern were extremely scarce and, in fact, were found only for *happiness* and *jealousy*, I retrieved all relevant patterns from the web using Web Corp. The results of this informal corpus query are displayed in Table 3.3.

³⁶ It goes without saying that the source of the HUMAN BEING is mapped onto many target domains other than EMOTIONS. In this study, however, the revealed significance this source domain shows in construing one group of emotion concepts rather than the other is crucial.

SOCIAL EMOTION	Animal Similes	Other	BASIC EMOTION	Animal Similes	Other
JEALOUSY	24	109	HAPPINESS	105	62
ENVY	3	37	SADNESS	32	96
SHAME	0	144	FEAR	11	118
GUILT	1	173	ANGER	22	142
PRIDE	70	87	DISGUST	3	77
TOTALS	98	550	TOTALS	173	495

Table 3.3: Distribution of animal idioms across social and basic emotion terms (informal Web Corp search).

A Fisher exact test of animal idioms totals used with social and basic emotion terms (98 and 173, respectively) cross-tabulated against the rest of structurally identical patterns across both sets of emotion words (550 and 495) indicate that social emotion words are repelled by the ANIMAL domain ($p \leq 0.001$). This estimate, however, is a very rough one since, as can be seen from Table 3.3, the within-group distribution of animal idioms is extremely uneven (compare, for instance, 0 appropriate tokens for *shame* and 70, i.e. almost a half of the total number of relevant patterns, for *pride*), which necessitates a qualitative analysis focusing more on the types of patterns rather than the number of tokens. Qualitatively, being *jealous* as evidenced by the language data is associated with metaphorical behaving as or resembling 12 different types of animals (e.g. *a cat, a tiger, a peahen, a hornet, a louse, etc.*), being *envious* is metaphorically construed as being/behaving like *a cat* or *a snake* (2 types of animals), being *guilty* and *proud* show only one animal association (e.g. *a mangy hound* and *a peacock*, respectively), being *ashamed* did not show any relevant pattern at all. Importantly, the simile *proud as a peacock* which showed unparalleled high frequency within the social emotion set is instantiated by exclusively this one pattern; moreover, it also seems to focus on exclusively negative connotations of the lexeme *pride*. Across the set of basic emotions *sadness* has shown to have 15 animal associates (e.g. *a basset, a dog, a puppy, a butterfly, a dolphin, etc.*), *happiness* - 15 (e.g. *a clam in the high tide/lark/pig/goldfish, etc.*), *being angry* is associated as resembling or behaving like 12 types of animals (e.g. *a bull/donkey/dog/snake, etc.*). *Being afraid* and *being disgusted* have proved to participate in one and two animal idioms patterns, respectively. Thus, the social emotions terms are associated totally with 16 animal species while basic emotion terms participate in animal similes involving 45 species (ratio, then, roughly 1:3).

The ENEMY mapping that proved to be statistically very strongly associated with each of the secondary emotion lexemes is regarded here as consistent with *morality* and *acceptability* criteria posited for secondary emotions in that “secondary” (otherwise termed as *complex* or *moral*) emotions’ display is subject to moral judgement and cultural norms of a society. In this logic, morally or ethically unwelcome emotions are most likely to be suppressed in their open manifestations, which is reflected in language by their metaphoric conceptualizations as ENEMIES/OPPONENTS. The English language data show that although negative basic emotion concepts of FEAR, ANGER, SADNESS and DISGUST embodied by the corresponding English nouns *fear*, *anger*, *sadness* and *disgust* can be and in fact *are* construed via the ENEMY metaphoric mapping, they do so on a less systematic level than the nouns *jealousy*, *envy*, *guilt*, *pride* and *shame* that embody the corresponding moral emotion concepts. The well-known tendency of the British to suppress their emotions (Gorer 1955:287), on the one hand, and the abundance of conventional ways of verbalizing *jealousy*, *envy*, *guilt*, *pride* and *shame* as entities that should be “combated”, on the other, might contribute to the rationale upon which language speakers (scientists no less than lay people), relying on their introspection, would classify these emotions as subject to a greater extent of moral evaluation than some other emotions that are less likely to be spoken of in terms of “fighting” and seem to come more naturally to people.

Apart for this, the ENEMY metaphor can also be viewed as indicative of INTENSITY of emotions parameter insofar overlooked in this quality in metaphoric research. Also, at least partially, the ENEMY/OPPONENT mapping can also refer to the “humanity” criterion since a human being (not less unlikely than an animal or a natural force) is one of the possible candidates for the slot of the OPPONENT in this mapping. To conclude the discussion of the ENEMY metaphor, it seems appropriate to add that metaphorical “fighting (with) emotions” seems to have a dimension that would be challenging to study across languages and cultures: a comparison of the ENEMY source domain mapped onto the target domain of EMOTIONS in various languages might reveal whether a culture welcomes or bans open emotional display and how these restrictions differ both quantitatively and qualitatively, i.e. to what extent and what emotions in particular are expected to be “subdued”, “fought against” or “repressed”. As a prediction to be tested

in further research, it can be hypothesized that culturally-specific discretion of Britons in open display of their emotions might result in higher frequencies of the ENEMY mapping when contrasted to the data of languages other than English.

That the DISEASE metaphor featured in the metaphoric conceptualizations of all 10 emotion concepts compared here is an interesting fact in itself, which, to our knowledge, has not been so far accounted for in cognitive and cultural linguistics literature on emotions. In our view, it can be interpreted in the vein of an observation made by Wierzbicka:

“In a culture where it is common to regard “composure” as a person’s “normal state”, phenomena such as joy, despair, shame, or fear may indeed be viewed as a “departure” from the normal, “baseline state”” (Wierzbicka 1999:25).

The idea that various emotions, metaphorically, are able to disease or cause pain, suffering or even death to their experiencers seem to be indicative of the perception of emotional stability as the normal, the “healthy” state of human’s psyche typical of Anglo culture (cf. EMOTIONAL STABILITY IS BALANCE mapping in Lakoff et al. 1991:148). In this logic, that English basic emotion words are significantly less associated with the DISEASE mapping than their “secondary” counterparts indicates that the respective basic emotion concepts are perceived as less “painful”, i.e. displaying less “deviation” from the “norm” (i.e. composure), as more “normal”, “healthy”, “natural”, in a way. Thus, “folk theory” of emotions encoded in English seems to differentiate between emotional states that are closer to being “healthy” or “natural” and those that are closer to be “unhealthy” or “unnatural”. This differentiation can tentatively be consistent with the “*uniquely human-non-uniquely human*” dimension where “healthy” and “natural” emotional states are more likely to be attributed to both humans and animals whereas “unhealthy” and “unnatural” are reserved exclusively to people.

In this context it would be of interest to note that the very usage of the word “emotion” with respect to states like *jealousy*, *envy*, *guilt*, *pride* and *shame* seems to be more justifiable than applying it to the lexemes like *anger*, *fear*, *happiness*, *sadness* and *disgust*. Following Wierzbicka (1999:24), while in the conventional usage of the word “feeling” is limited to either bodily events (e.g. *feeling of hunger*, *feeling of heartburn*) or to purely cognitively-based states with no

reference made to associated bodily events or processes (e.g. *feeling of loneliness, feeling of alienation*), the English word *emotion* seems to combine in its meaning a reference to “feeling”, a reference to “thinking”, and a reference to a person’s body: “(...) the noun *emotion* itself (...) links the idea of cognitively based “feelings” with that of “bodily events” (Wierzbicka 1999:26). As shown by MPA, this is exactly the case with emotional states like *jealousy, envy, pride, shame* and *guilt*. From the usage-oriented perspective, it should be nevertheless be mentioned that the emotion words *jealousy* and *envy* have not shown significant attraction to either *emotion of* - or *feeling of* - patterns in both BNC and Web Corp searches. *Guilt* has shown preference for the *feeling of*- pattern: BNC instantiated 23 hits for *feeling of guilt* and none for *emotion of guilt*, the informal Web Corp query suggests the former is used 1.5 times more frequently than the latter (265:164). The results concerning *shame* and *pride* are somewhat confusing: whereas BNC data do not suggest that these lexemes prefer either pattern, Web Corp searches instantiated *feeling of shame/pride* patterns as 1.5 and 2 times more frequent than *emotion of shame/pride* strings (249:171 and 232:101, respectively).

In view of the interpretation of the meaningfulness of the selected mappings offered above, it would be of interest to have a closer look at the p-values interpreted here as direct indicators of the association strength of each secondary emotion word with the three mappings that distinguish them as a separate group. The corresponding figures are given in Table 3.4:

EMOTION/MAPPING	JEALOUSY	ENVY	SHAME	PRIDE	GUILT
DISEASE	7.43E-34	1.05E-5	5.89 E-15	1.28E-16	1.2 E-27
ENEMY	5.69E-12	9.5 E-6	1.86 E-8	2.01E-3	2.165 E-11
HUMAN BEING	1.42E-11	2.22E-13	2.73 E-9	7.48E-10	8.94E-9

Table 3.4: Significance of selected specific metaphors across prototypical social emotion terms

As it is clear from this table, the emotion word most significantly attracted by the DISEASE domain is *jealousy*. Followed closely by GUILT, the respective concept also displays the strongest association with the ENEMY domain. Thus, the concept of JEALOUSY as it is metaphorically construed in English indicates that the perspective emotion is perceived as the state which is the most distant “departure” from the “baseline” of emotional stability. In other

words, experiencing jealousy is viewed as excruciatingly painful and, in some contexts as a minimum, as extremely unhealthy. Moreover, its strong association with the ENEMY metaphor signals its conceptualization as an exceptionally unwelcome emotion whose open display as well as, potentially, private experiencing are regarded negatively in Anglo culture.

The lexeme *envy*, used in English to embody the concept of ENVY shows most significant association with the HUMAN BEING source domain which conceptualizes the respective feeling as such that is pertinent exclusively to human beings.

Interestingly, all the three remaining emotion words, *shame*, *guilt* and *pride*, are more significantly attracted by the DISEASE domain than by the domains of the ENEMY or HUMAN BEING. This once again indicates the cultural relevance of the prerequisite of emotional stability perceived as the norm in Anglo culture, on the one hand, and, on the other, clearly shows that these emotions are viewed upon as “deviating” from this norm in that experiencing them “destabilizes” a person both emotionally and physically. It also should be stressed here that while the DISEASE mapping across such emotion words as *jealousy*, *envy*, *guilt* and *shame* displays considerable consistency in the respective individual metaphoric patterns (e.g. *X be exacerbated/plagued/tormented/disturbed by EMOTION*, *guilt, a (sharp) twinge/pangs/twitch/fit of EMOTION*, *X die of/suffer from EMOTION*), the metaphoric conceptualization of PRIDE via this metaphor to a large extent implies that PRIDE is viewed upon as a diseased/painful/damaged ORGAN/PART OF THE ANATOMY as in *pride be assuaged, hurt/injured/wounded/ disturbed/damaged/bruised pride*, *pride be disturbed beyond recovery*, etc. This folk belief linking pride to a bodily organ can result in that the EMOTION-AS-ENEMY metaphor, which explicitly refers to an emotion as an *external* entity with respect to its experiencer, shows weaker association strength with PRIDE.

5. Conclusion

This paper has revealed that metaphoric pattern analysis applied to the corpus data and coupled with statistical processing conventionally used within the framework of current quantitative linguistics is a potent method of uncovering differences in metaphoric conceptualization of two (semantically close)

concepts. More specifically, the application of MPA to the case studies of this paper has brought to light conceptually relevant language-dependent differences in the respective cultural models of two emotion concepts under study. Most importantly, the analysis has shown that the English concept of JEALOUSY as it is metaphorically construed in the English language is perceived as a significantly more painful and unwelcome emotion in contrast to the concept ENVY. Furthermore, the contrastive analysis of the conceptual mappings more pertinent to either JEALOUSY or ENVY has shown that while JEALOUSY is predominantly viewed upon as an entity *external* with regard to its experiencer, implying, thus, that the respective feeling is difficult to be controlled (also testified by its weak association with the OBJECT system of event-structure metaphors when contrasted to ENVY) and should be “fought” against (manifested by the significance of the ENEMY metaphor), the cultural model of ENVY seems to posit the respective feeling as an *internal* entity within the human’s body (as in the FLUID-INSIDE-THE-HUMAN-BODY metaphor) or as a possession, suggesting a less conflicting relationship with the experiencer. Additionally, JEALOUSY has been assessed to be more strongly associated with all metaphors posited in literature as construing the intensity of emotions. Finally, while JEALOUSY metaphoric patterns tend to focus on the *physiological* effects this emotion has on the human’s psyche and, most importantly, body (shown by the significance of attributing unhealthy symptoms and excruciating pain to it via the DISEASE/MADNESS, the WEAPON/SHARP OBJECT and the DESTRUCTIVE FORCE metaphors), the cultural construal of ENVY shifts the focus to *behavioral* patterns associated with this emotion in a culture (as shown by the significance of *evil eyeing* as a indicator of the public display of envy).

A broader look at the two distinct sets of emotion concepts labeled as “basic” and “secondary” in current scientific research has allowed us to arrive at two important conclusions. The first conclusion lies in that lay metaphoric conceptualizations of what is termed in the scientific literature as “basic” and “secondary” emotions differ significantly in their associations to particular source domains. The systematic and recurrent character of these differences show that “folk theories” of emotions reflected in a natural language (intuitively and introspectively) view two classes of emotion concepts as distinct sets. Secondly and more importantly, the very conceptual mappings found to be more strongly associated with one of these groups indicate that

the distinctive criteria adopted in science to differentiate between “primary” and “secondary” emotions are in some way consistent with the conventional ways of speaking about these emotions using ordinary language. An implication of this second conclusion can be that at least partially the English language itself provides a conceptual basis for the biological theory of emotions which in turn appears to have (at least some) ethnocentric language-dependent bias.

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