

Do near-synonyms occur with the same metaphors: A comparison of anger terms in American English

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Abstract

When studying metaphorical target domains by means of corpus linguistics, a problem that needs to be addressed is how to retrieve metaphorical expressions associated with that domain from a corpus. One suggested answer is metaphorical pattern analysis, which claims that we can map out all the metaphors for a target domain by choosing one word to represent the domain and by analyzing its occurrences in the corpus. The method makes the assumption, among others, that near-synonyms occur with the same metaphorical mappings. This paper tests the assumption by examining an earlier metaphorical pattern analysis of near-synonyms and by analyzing the metaphors in which *anger*, *rage*, *fury*, and *wrath* occur in the Corpus of Contemporary American English. The results show that, broadly speaking, near-synonyms do occur with the same metaphorical mappings, but not necessarily to the extent that we could always map out entire target domains with a single search word.

1. Introduction

Metaphor has been a popular research topic in linguistics especially since the publication of Lakoff and Johnson's *Metaphors We Live By* (1980). For decades, linguists have studied the nature of metaphor and its significance in our language use, but only recently have they started to pay closer attention to the methods in which metaphor is studied. Some have developed procedures for identifying metaphorically used words (Pragglejaz Group 2007, Steen et al. 2010), others have come up with methods for extracting metaphors from a corpus (Partington 1997, Stefanowitsch 2006b).

One such method is metaphorical pattern analysis (MPA), which suggests that it is possible to map out all the metaphors for a target domain by choosing just one word to represent that domain and studying the metaphorical expressions in which the word occurs (Stefanowitsch 2006b: 64). An important assumption behind this method is that near-synonyms occur broadly with the same metaphorical mappings (Stefanowitsch 2006b: 101–102). It should therefore not matter whether we use the word *anger* or *rage* to study the target domain of ANGER; both words should produce more or less the same results. This assumption is given some support in Stefanowitsch (2006b: 96–99), where little differences are found in the metaphors in which the words *happiness* and *joy*

occur. Although Stefanowitsch (2006b: 101–102) takes the results of this comparison as proof that near-synonyms produce similar results, I would like to submit the hypothesis to further tests.

In this paper, I will therefore examine a previous study that has applied MPA on a pair of near-synonyms (Ogarkova 2007) as well as analyze a set of near-synonyms—*anger*, *rage*, *fury*, and *wrath*—in the Corpus of Contemporary American English (COCA) (Davies 2008–). I will also discuss how the ANGER metaphors identified in this study compare with metaphors identified in earlier literature.

2. Background

Much of the linguistic work done within conceptual metaphor theory has been based on intuition rather than empirical studies (Stefanowitsch 2006a: 4, Rojo and Orts 2010: 3301), but corpus linguistics has meant a change. Large electronic corpora are usually accessed by means of words or word forms, but because metaphorical mappings are not necessarily associated with particular words, retrieving them from a corpus can be difficult (Stefanowitsch 2006a: 1–2). Stefanowitsch (2006a: 1–2) lists and evaluates three separate strategies that have been used for extracting metaphors from a non-annotated corpus (Rojo and Orts 2010: 3301).

The first strategy is to search for metaphors manually, but this limits the size of the corpora and therefore renders the representativity of the results questionable. The second strategy relies on source-domain vocabulary, which is a convenient choice because metaphorical expressions contain source-domain words by definition. We can therefore choose a source domain, list lexical items relevant to it, search for them in a corpus, and identify the metaphorical occurrences among the hits. These occurrences can then be analyzed in more detail, uncovering information about the mappings in which the source domain participates.

The source-domain oriented approach or course doesn't work if we want to investigate mappings associated with a particular target domain (Stefanowitsch 2006a: 3). The third strategy therefore relies on target-domain vocabulary. Stefanowitsch exemplifies this third strategy with the approach in Partington (1997: 111–112), where a list of keywords is first extracted from a

corpus specialized in the target domain. Potentially metaphorical words are then identified in the list, and these as well as related words are finally searched for in a more general corpus. This approach has two weaknesses: first, it is only applicable for target domains where specialized corpora exist, and second, it can only identify source domains whose vocabulary is frequent enough to appear on the keyword list (Stefanowitsch 2006a: 3).

To overcome these limitations, Stefanowitsch (2006a: 3–4) suggests another approach, MPA. Similar approaches have been used by other scholars, for example in Tissari (2003) and Martin (2006), but Stefanowitsch (2006b: 64–65) seems to be the first one to argue that the approach exhaustively identifies the metaphors associated with a target domain.

MPA is built on the observation that there are two kinds of metaphorical expressions: ones that include target-domain words and ones that do not. Examples (1) and (2), from COCA, illustrate these types:

(1) *Tonya's confession [...] sparked an **anger** in Jacob.*

(2) *Bryan sat **fuming** in his room.*

Example (1) is what Stefanowitsch calls a metaphorical pattern: it contains both target-domain vocabulary (*anger*) and source-domain vocabulary (*spark*). Example (2) is not a metaphorical pattern, because it only contains source-domain vocabulary (*fuming*) and no target-domain vocabulary.

Stefanowitsch (2006b: 64) suggests that we can use metaphorical patterns to investigate mappings in the following way:

We choose a lexical item referring to the target domain under investigation and extract (a sample of) its occurrences in the corpus. In this sample, we then identify all metaphorical expressions of which the search word is a part, and these expressions can then be grouped into coherent groups representing general mappings.

This procedure is what Stefanowitsch calls metaphorical pattern analysis.

3. Ogarkova's comparison of *jealousy* and *envy*

Some studies have already applied MPA on near-synonyms, but the comparison of *happiness* and *joy* in Stefanowitsch (2006b: 96–99) seems to have been the only one to directly address the question whether near-synonyms

occur with the same mappings. Rojo and Orts (2010) compare the near-synonyms *crisis* and *recession* in a collection of news texts, but because their sample sizes are very small (167 occurrences of *crisis* and 193 of *recession*) and because their corpus of financial articles from *The Economist* is not representative of general English, I will not analyze their results here. I will, however, concentrate on Ogarkova's 2007 study, which applies MPA on all the occurrences of *jealousy* and *envy* in the British National Corpus.

Ogarkova treats JEALOUSY and ENVY as distinct emotions and therefore as distinct conceptual domains, and if we accept this view, her results are not relevant for the purposes of this paper. However, as Ogarkova acknowledges (2007: 100), the words *jealousy* and *envy* are often used interchangeably. The dictionary definitions in Macmillan (2012) are certainly very similar:

jealousy

an unhappy feeling because someone has something that you would like or can do something that you would like to do

(a) a feeling of being unhappy and upset because you think someone who you love is attracted to someone else

envy

the unhappy feeling that you have when you want very much to do something that someone else does or to have something that they have

Apart from wording, the main sense descriptions of *jealousy* and *envy* are almost identical. The only notable difference is that *jealousy* has a subordinate sense that is specifically related to love relationships, and this sense seems to be what motivates the treatment of JEALOUSY and ENVY as separate emotions (Ogarkova 2007: 99–101). The similarity of Macmillan's sense descriptions, however, suggests that *jealousy* and *envy* can just as well be taken to represent a single domain. Whether we treat JEALOUSY and ENVY as two distinct domains seems to depend on how specific our categorization of domains is. Even if there are two domains, JEALOUSY and ENVY, it could be argued that only those instances of *jealousy* that fit the subordinate sense description represent the domain of JEALOUSY and the rest the domain of ENVY.

Ogarkova's results show that there are altogether seven mappings that occur exclusively with either *jealousy* or *envy* (2007: 101–116). I gathered the

mappings that Ogarkova has found with both *jealousy* and *envy* into a single table so that it would be easy to compare the coverage achieved with each word. Table 1 summarizes her results. The absolute numbers of hits are normalized to a sample of 1000 occurrences.

Table 1 Mappings associated with *jealousy* and *envy* in Ogarkova (2007)

Mapping: JEALOUSY/ENVY IS	Jealousy n/1000	Envy n/1000	Total
POSSESSION	68	177	245
A DISEASE/PAIN	100	27	127
AN OPPONENT IN A STRUGGLE/ENEMY	71	40	111
MIXED/PURE SUBSTANCE	44	38	82
SUBSTANCE IN A CONTAINER	43	26	69
A HUMAN BEING/(SLEEPING) ORGANISM	32	30	62
LOCATION	43	15	58
AN ANIMAL/INSECT	38	15	53
(HOT) LIQUID (IN A CONTAINER UNDER PRESSURE)	43	7	50
BEING ENVIOUS IS ACTING WITH AN OBJECT	0	45	45
MOVING OBJECT	28	15	43
SHARP OBJECT/WEAPON	36	4	40
FIRE	34	4	38
(DESTRUCTIVE) PHYSICAL FORCE	31	5	36
INSANITY/FOOLISHNESS/MADNESS	31	1	32
BECOMING GREEN IN COMPLEXION	3	22	25
MOVED OBJECT	4	18	22
PHYSICAL OBJECT	12	10	22
(UN)MASKED OBJECT	10	11	21
CAUSER/PATH	13	8	21
UNPLEASANT TASTE /GORGE	18	3	21
THE INTENSITY IS PHYSICAL SIZE OR QUANTITY	12	7	19
OBJECT IN SOME LOCATION	9	5	14
AN OBSTACLE (TO VISION)/BARRIER	9	3	12
GROUND/FOUNDATION	4	8	12
SUPERNATURAL BEING	4	8	12
PLANT	6	5	11
WEATHER PHENOMENON	7	4	11
HIGH/LOW (INTENSITY)	10	0	10
ACTING ON AN EMOTION IS ACTING IN A LOCATION	9	0	9

Mapping: JEALOUSY/ENVY IS	Jealousy n/1000	Envy n/1000	Total
LIGHT	4	5	9
MECHANISM	4	5	9
WRONGDOING	7	1	8
ANTIDOTE/POISON	0	5	5
FUEL	0	4	4
SPY	4	0	4
TRANSFERRING AN OBJECT	4	0	4
Total	795	581	1376

Table 1 shows the 37 mappings in Ogarkova's sample that occurred at least four times with either search word when the number of hits was normalized to a sample of 1000 occurrences. Out of those mappings, *jealousy* instantiated 34 (91.89 percent) and *envy* 33 (89.19 percent). This means that there are three mappings that did not occur with *jealousy* (BEING ENVIOUS IS ACTING WITH AN OBJECT, ENVY IS ANTIDOTE/POISON, and ENVY IS FUEL) and four mappings that did not occur with *envy* ((THE INTENSITY OF) JEALOUSY IS HIGH/LOW, ACTING ON AN EMOTION IS ACTING IN A LOCATION, JEALOUSY IS A SPY, and JEALOUSY IS TRANSFERRING AN OBJECT).

The main focus in Ogarkova's comparison is on mappings that are statistically more significantly associated with either *jealousy* or *envy*. According to Ogarkova (2007: 117-122), there are five metaphors that are more significantly associated with *jealousy* (JEALOUSY IS A DISEASE/PAIN/PHYSICAL ANNOYANCE, JEALOUSY IS INSANITY/FOOLISHNESS, JEALOUSY IS FIRE, JEALOUSY IS A WEAPON/SHARP OBJECT, and JEALOUSY IS (HOT) LIQUID (IN A CONTAINER UNDER PRESSURE)) and three metaphors that are more significantly associated with *envy* (ENVY IS A POSSESSED OBJECT, ACTING ON ENVY IS ACTING WITH AN OBJECT, and BEING ENVIOUS IS BECOMING GREEN IN COLOR). In a similar comparison, Stefanowitsch (2006b: 48) finds that 4 percent of metaphorical patterns distinguish between *happiness* and *joy*, which is interpreted as a positive result that suggests that focusing on one word only does not affect the results too much. In Ogarkova (2007: 117), the corresponding amount is 14 percent (8 out of 56 mappings), which seems much higher.

4. A comparison of *anger, rage, fury, and wrath* in COCA

4.1 Materials and methods

I tested the hypothesis that near-synonyms occur with the same mappings by applying MPA on a set of near-synonyms from COCA. The analysis was divided into two major phases. The first phase consisted of a rather straightforward application of the procedure outlined above:

- (a) I chose four lexical items that refer to the target domain of ANGER: *anger, rage, fury, and wrath*. This set of words is identified in Stefanowitsch (2006b: 71) as containing possible candidates to represent the domain of ANGER.
- (b) I took a random sample of 500 occurrences of each noun from COCA.
- (c) Among these occurrences, I identified the metaphorical expressions in which ANGER was the target domain. The identification relied on the metaphor identification procedure (MIP) (Pragglejaz Group 2007) and on its extension MIPVU (Steen et al. 2010), where a word is considered to be used metaphorically if its contextual meaning contrasts with a more basic meaning but can be understood in terms of it.
- (d) I categorized the metaphorical expressions according to their source domains. When possible, I used the same categories that are used in the analysis of ANGER in Stefanowitsch (2006b) – many of which are taken from Kövecses's (1998: 128–129) summary of earlier studies.

The second phase of the analysis focused on mappings that were not found with all search words. To find out whether this was due to sample size or whether it reflected real differences between the words, I did the following for each search word:

- (e) I drew all the occurrences of the word from COCA and stored them in a text file.
- (f) I listed the mappings with which the search word did not occur but that did come up with other search words.
- (g) I compiled a list of search strings that instantiated the missing mappings in the other samples and in Stefanowitsch (2006b). For example, for the mapping ANGER IS A DISEASE, the list would consist of the following strings: *fester, froth, relapse, impotent, livid, sick, symptom, purge, and infect*.

The search strings did not have to occur as full words—*infect*, for example, would find words such as *infectious* and *infected*.

- (h) Out of all the occurrences of the search word, I selected those that included the search strings listed in step (g).
- (i) For the selected occurrences, I applied steps (c) and (d).

4.2 Results and discussion

Table 2 summarizes the metaphors found with *anger*, *rage*, *fury*, and *wrath*; it lists the mappings that occurred at least three times in the total set of 2000 samples in the order of their overall frequency and conflates less frequent ones under the OTHER category¹. Columns *Anger-Wrath* show how many times a particular search word instantiated a particular category. The numbers of occurrences that were found with additional queries in the second phase of the analysis and not in the actual 500-word samples are shown in brackets and are not included in the total count.

Table 2 A summary of the mappings associated with *anger*, *rage*, *fury*, and *wrath*

Mapping: ANGER IS	Ange r	Rage	Fury	Wrath	Total*
A POSSESSION	128	82	102	322	634
A PLACE	31	59	55	4	149
A MOVING OBJECT	52	23	13	32	120
AN OBJECT	39	21	15	25	100
FIRE	19	15	21	5	60
AN OBJECT IN A LOCATION	26	13	12	1	52
AN OPPONENT IN A STRUGGLE	15	11	15	4	45
A SUBSTANCE IN A CONTAINER (UNDER PRESSURE)	9	20	13	1	43
AN EXPLOSION	7	8	4	1	20
LIGHT	12	2	4	1	19
HIGH/LOW	10	(18)	6	1	17
PHYSICAL ANNOYANCE (I.E. PAIN)	1	9	1	4	15
A SOUND	(16)	3	10	1	14
A LIQUID	3	6	4	1	14
A (DEAR) PERSON	5	1	(2)	7	13
DARKNESS	3	3	5	2	13
A DISEASE	(32)	6	6	(0)	12
FLUID IN A CONTAINER	3	2	3	4	12

¹ A more detailed account of the results can be found in appendices 1–8.

Mapping: ANGER IS	Ange r	Rage	Fury	Wrat h	Total*
AGGRESSIVE ANIMAL BEHAVIOR	3	2	4	2	11
A NATURAL FORCE	6	2	3	(1)	11
A MIXED OR PURE SUBSTANCE	6	4	(9)	1	11
A BURDEN	6	(10)	1	4	11
HOT FLUID IN A CONTAINER	3	5	1	1	10
HEAT	5	1	2	1	9
A CAPTIVE ANIMAL	1	2	3	3	9
AN ORGANISM	4	2	3	(0)	9
A SLEEPING ORGANISM	3	(4)	2	4	9
COLD	1	1	5	1	8
A CONTAINER	1	(12)	3	4	8
BLIND	1	5	(15)	(1)	6
A SUPERIOR/AN INFERIOR	2	2	2	(0)	6
FOOD	1	2	2	(1)	5
PHYSICAL STRENGTH	3	1	(5)	(1)	4
A PLANT	3	(14)	(4)	(0)	3
INSANITY	(9)	2	1	(0)	3
A WEATHER PHENOMENON	(3)	(0)	3	(1)	3
A MASK	(16)	2	1	(0)	3
OTHER	5	6	4	1	16
Total*	417	323	329	438	1507

*Bracketed amounts are not included in the total count.

Most of the mappings in Table 2 are familiar from earlier literature such as Lakoff and Kövecses's (1987: 195–219) analysis of ANGER in American English and in Stefanowitsch's (2006b: 71–78) metaphorical pattern analysis of ANGER in the British National Corpus. As in Stefanowitsch's analysis, the most frequent mappings identified here represent event structure metaphors. In Stefanowitsch's sample, the location system (ANGER IS A LOCATION/PLACE) accounts for 10.2 percent of metaphorical patterns and the object system (ANGER IS A POSSESSION, ANGER IS A MOVING/MOVED OBJECT, ANGER IS AN OBJECT, ANGER IS AN OBJECT IN A LOCATION) for 56.15 percent. Here, the total percentages are quite similar, 9.89 for the location system and 60.12 for the object system, but there is some variation between the search words. The location is system is hardly at all instantiated by *wrath*—it accounts for 0.91 percent of the metaphorical patterns identified with the word—whereas the object system accounts for a total of 86.76 percent. The corresponding percentages with the rest of the

search words are 7.43 and 58.75 with *anger*, 18.27 and 43.03 with *rage*, and 16.72 and 43.16 with *fury*.

The largest group after event structure metaphors is also the same as in Stefanowitsch (2006b: 75–77). Mappings related to the general domains of LIQUID and HEAT (ANGER IS FIRE, ANGER IS A SUBSTANCE IN A CONTAINER (UNDER PRESSURE), ANGER IS AN EXPLOSION, ANGER IS A LIQUID, ANGER IS FLUID IN A CONTAINER, ANGER IS A NATURAL FORCE, ANGER IS HOT FLUID IN A CONTAINER, and ANGER IS HEAT) account for 11.88 percent, which is not very far from the 13.3 percent reported in Stefanowitsch (2006b: 77). This group of mappings corresponds with Lakoff and Kövecses's metaphor ANGER IS HEAT and its more specific variants ANGER IS THE HEAT OF A FLUID IN A CONTAINER and ANGER IS FIRE, which they suggest are the most central metaphors for ANGER in American English (1987: 197)—a claim that these results seem to support. Again, *wrath* instantiates these mappings much less frequently than the other search words: the group accounts for only 3.20 percent of the metaphorical patterns in its sample, when the corresponding percentages are 13.19 with *anger*, 18.27 with *rage*, and 15.50 with *fury*.

Similar variation is also apparent in the next most frequent mapping, ANGER IS AN OPPONENT IN A STRUGGLE. It accounts for 2.99 percent of the metaphorical mappings in the total sample but only 0.91 percent in the sample for *wrath*. Another group of metaphors, ANGER IS AGGRESSIVE ANIMAL BEHAVIOR, ANGER IS A CAPTIVE ANIMAL, ANGER IS A SLEEPING ORGANISM, which Lakoff and Kövecses (1987: 206–207) see as instances of a more general metaphor ANGER IS A DANGEROUS ANIMAL, does not display similar variation. The group accounts for 1.92 percent of metaphorical patterns identified in the total sample and 2.05 percent in the sample for *wrath*. These observations show that not all mappings display the same variation, but even when a mapping can be identified with *wrath*, it often instantiates it less frequently than the other search words.

Next, I wish to draw attention to some differences between the results of this analysis and the metaphors identified in earlier studies. The metaphor ANGER IS A SUPERIOR (*His actions were completely governed by anger*) is suggested in Kövecses (1998: 129) and also identified in Stefanowitsch (2006b: 74) (*anger rule the day*). This data set includes several patterns where the person

experiencing anger has the superior position (*banish rage from awareness, in command of anger, keep anger in its place, ungovernable anger, ungoverned fury*) and only one pattern where anger is the superior (*fury banish emotion*). In the light of this data, the label ANGER IS SUPERIOR/INFERIOR seems more appropriate for the mapping.

Table 2 includes 5 mappings that seem to be absent from the earlier literature on ANGER metaphors:

ANGER IS A SOUND

fury pulse on X's tone, the echo of fury, quiet fury/rage, silent fury/rage, whirring fury, wrath echo

ANGER IS A (DEAR) PERSON

accommodate X's wrath, a stranger to X's anger, attract anger, court X's anger, foster rage, get in touch with anger, invite X's wrath/the wrath of X, long-cherished anger, meet ((with) the wrath of) X

ANGER IS FOOD

feed on rage, fresh fury, fury ripen, raw rage

ANGER IS BLIND

blind anger/rage

ANGER IS A MASK

don a mask of fury, face be contorted in a mask of rage, rage mask X

The SOUND metaphor has come up in investigations on other emotion concepts, at least in Stefanowitsch's metaphorical pattern analysis of SADNESS (2006b: 88), but it does not seem to have been identified as a metaphor for ANGER. The PERSON/PEOPLE metaphor is not usually listed among emotion metaphors at all, but Esenova (2009) does suggest a more specific version ANGER IS A CHILD. One pattern in the (DEAR) PERSON category (*foster rage*) is compatible with the CHILD metaphor, but most patterns imply a more general or completely different relationship. FOOD is another source domain that usually does not come up in analyses of emotion concepts, and even here some of its instances could perhaps be categorized under ANGER IS PLANT. The last two mappings ANGER IS BLIND and ANGER IS A MASK are specific and not very productive: both of them are instantiated by a single lexical unit (the former by *blind* and the latter by *mask*). The instances under ANGER IS BLIND might also be motivated by the

metonymy INTERFERENCE WITH ACCURATE PERCEPTION FOR ANGER (Lakoff & Kövecses 1987: 196–197).

Do the near-synonyms *anger*, *rage*, *fury*, and *wrath* occur with the same metaphorical mappings? Table 2 shows that more or less the same metaphorical mappings can be identified with *anger*, *rage*, and *fury*—provided that the sample size is large enough. The only exception is the mapping ANGER IS A WEATHER PHENOMENON, which I was unable to find with the search word *rage*. This should not be a major problem for MPA, because the mapping status of ANGER IS A WEATHER PHENOMENON can be questioned for at least two reasons: first, even when the additional searches are included, the mapping is very infrequent, and second, the metaphorical patterns could also be accounted for by the more general mapping ANGER IS A NATURAL FORCE. In fact, Stefanowitsch (2006b: 74) does not list WEATHER PHENOMENON as a mapping for ANGER (he does so for other emotion concepts) but subsumes the example *climate of anger* under the NATURAL FORCE mapping. If we treated the WEATHER PHENOMENON and NATURAL FORCE mappings as one category, we could say that *anger*, *rage*, and *fury* are associated with all the same metaphorical mappings that exceed the threshold level of three occurrences in the total sample.

The discussion above has already shown that *wrath* stands out in the extent to which it participates in many mappings, but it also stands out in terms of coverage. Even after additional searches, there are six mappings that were not found with *wrath*: ANGER IS A DISEASE, ANGER IS AN ORGANISM, ANGER IS A SUPERIOR/AN INFERIOR, ANGER IS A PLANT, ANGER IS INSANITY, and ANGER IS A MASK.

The overall results show that all the metaphorical mappings for ANGER in COCA can more or less be mapped out with the search word *anger*, *rage*, or *fury*, but not with *wrath*. I do not know the exact reason why *wrath* stands out, but I can say the following. First, *wrath* is by far the least frequent of these words in COCA. Its relative frequency per million words is 3.59, which does not differ that much from the frequency of *fury* (7.74), but which is considerably lower than that of *rage* (16.61) and *anger* (35.08). Second, the Corpus of Historical American English (COHA) (Davies 2010–) shows that the relative frequency of *wrath* per million words in that corpus has decreased from the 1810s to the 2000s much more than that of the other words. The

decrease in the relative frequency of *wrath* is as much as 93.66 percent, whereas *rage* has decreased 73.98 percent, *fury* 69.27 percent, and *anger* 21.20 percent. This change is also reflected in the fact that both dictionaries used in this analysis for metaphor identification, Macmillan (2012) and Longman (2012), tag *wrath* as formal.

5. Conclusions

This paper set out to investigate whether near-synonyms occur with the same metaphorical mappings and whether we can make generalizations about a whole conceptual domain from the metaphors with which a single representative word occurs. The discussion of Ogarkova's (2007) results shows that the answer may not be as straightforward as assumed in Stefanowitsch (2006b)—her comparison of *jealousy* and *envy* in BNC shows that the corpus contains 4 metaphorical mappings that are specific to *jealousy* and 3 metaphorical mappings that are specific to *envy*. In this study, the variation is not as great: depending on how fine-grained our categorization of metaphorical mappings is, *anger*, *rage*, and *fury* produce either an identical list of metaphorical mappings or an identical list with the exception of one mapping that does not occur with *rage*. *Wrath*, on the other hand, clearly stands out; there are as many as 6 mappings with which *wrath* does not occur.

There are two possible conclusions that can be made from this result: either *wrath* is not a near-synonym of *anger*, *rage*, and *fury*, or near-synonyms do not always appear with the same metaphorical mappings. Even if the latter conclusion is true, the consequences for MPA are not necessarily severe. The method calls for a representative word, and there are at least two reasons why *wrath* is not as representative as *anger* and *rage*, or even *fury*.

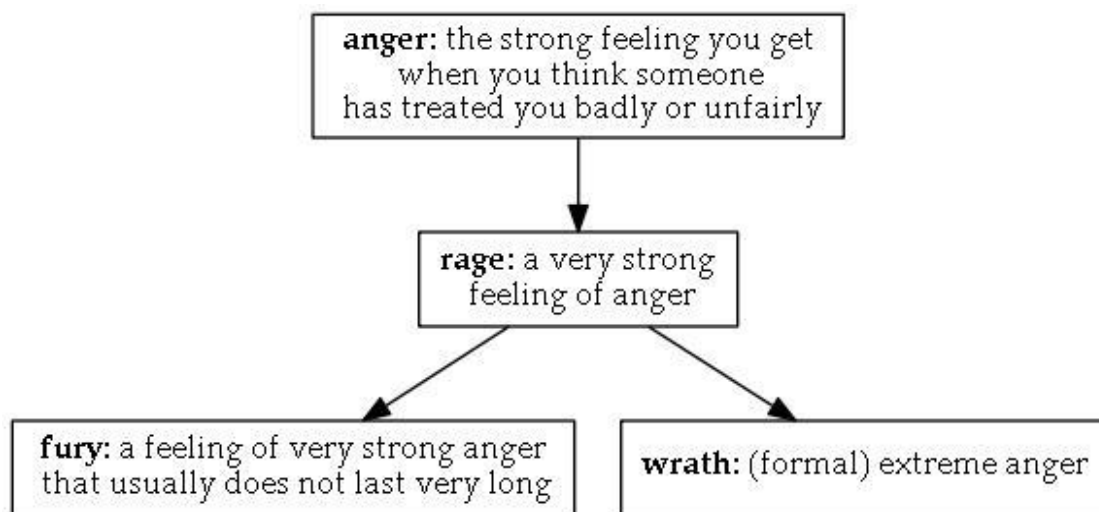
First, Stefanowitsch (2006b: 71) takes the frequency of a word as a sign of its representativeness. The total occurrences of *anger*, *rage*, *fury*, and *wrath* in COCA amount to 5752, and *wrath* accounts for only 6 percent of these, whereas *fury* accounts for 18 percent, *rage* for 20 percent, and *anger* for 55 percent. In terms of frequency, *wrath* is clearly the least representative word and *anger* the most representative one.

Second, we might assume that the more general a word's meaning is, the more representative it is of its domain. Figure 1 below shows that *wrath* is the most

specific of these words, both in terms of its logical denotation ('a feeling of very strong anger that usually does not last very long') and the register in which it is used (formal). In this respect, too, *anger* is the most representative word; it is superordinate to all the three other words.

In fact, near-synonyms occurring with the same metaphorical patterns would only be a problem for MPA when less representative words occur with mappings with which more representative words do not occur. This is clearly not the case with *anger*, *rage*, *fury*, and *wrath* in COCA, but at least according to the results in Ogarkova (2007), it seems to be the case with *jealousy* and *envy* in BNC. If we take *jealousy* and *envy* to represent the same domain, it seems that a single representative word might not be enough to map out the all the mappings that structure a target domain. MPA might therefore benefit from further explorations into the metaphors in which near-synonyms occur, and as suggested in Ogarkova (2007: 109), including other word forms than nouns might also add to the mappings that can be uncovered.

Figure 1: Lexical relations between *anger*, *rage*, *fury*, and *wrath* derived from Macmillan (2012)



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Appendices

Appendix 1: Metaphorical mappings associated with *anger* found in the first phase of the analysis

Mapping: ANGER IS	Examples	n
A POSSESSION	X's anger, have/own/get rid of anger, share X's anger/feelings of anger, the anger of X	128
A MOVING OBJECT	anger at/from/toward X, deflect anger onto Y, divert anger away from X, take anger aimed at X and turn anger on Y, target for/of anger, turn anger toward X	52
AN OBJECT	anger about/against/among/over X, anger between X and Y, anger displace emotion, anger passed between X and Y, anger surface, anger washed away, beneath X's anger, cover up/hide/lay down anger, emotion displace anger, fling all X's anger into Y, hidden anger, let anger go, let go of anger, place to put anger	39
A PLACE	be seated in anger, beyond anger, drive X to anger, (expression waver) between anger and emotion, get past the anger, in anger, move X to anger, out of anger, step out of anger	31
AN OBJECT IN A LOCATION	(an) anger within/in/inside X, anger be from within, anger come into X's eyes, anger in X's eyes/heart/voice/face, anger spread, have anger inside, keep anger out of X's voice	26
FIRE	anger burn inside X, anger flare (through X), anger fueled by X, consumed with anger, eyes blaze with anger, face aflame/flare with anger, fuel/ignite/spark/stoke anger, fuming/glaring with anger, glare at X with anger, tamp down the smoldering anger	19
AN OPPONENT IN A STRUGGLE	anger and emotion war in Y, anger get the best of/stun/take hold of X, anger take over, appease/give way to anger, control/overcome/secure control of anger, emotion overtake anger, suppressed anger, suppression of anger	15
LIGHT	a flash of anger, anger fade (to emotion), anger flash (behind X's glasses/in X's eyes), anger shimmer in X's eyes, eyes/mind flash with anger	12
HIGH/LOW	anger drift higher and higher, anger fall to dust, anger rise, level of anger	10

Mapping: ANGER IS	Examples	n
A SUBSTANCE IN A CONTAINER (UNDER PRESSURE)	anger erupt, burst of anger, eyes hold anger, filled/full up with anger, release anger, releasing anger, swelling anger	9
AN EXPLOSION	X's anger fuse shorten, anger explode through X, defuse/trigger anger, explode releasing anger, explode with anger	7
A BURDEN	anger be lifted, anger to carry around, carry anger, drop the anger, dump X's anger on Y's shoulders, shake off anger	6
A MIXED OR PURE SUBSTANCE	anger dissolve, mixture of anger and emotion, pure anger, stir X to anger	6
A NATURAL FORCE	X's anger rush through Y, (a) rush/wave of anger, anger sweep X	6
A (DEAR) PERSON	a stranger to X's anger, attract/court X's anger, get in touch with anger, long-cherished anger	5
HEAT	anger be hot, broil with anger, eyes hot with anger, hot red anger, the heat of anger	5
AN ORGANISM	anger breed/grow, growing anger	4
A LIQUID	channel anger into X, words be saturated with anger	3
A PLANT	anger bloom in X's heart, anger have roots in X, stunted anger	3
A SLEEPING ORGANISM	arouse/awaken/rouse anger	3
AGGRESSIVE ANIMAL BEHAVIOR	anger swallow X whole, anger tamer, wild anger	3
DARKNESS	blue eyes turn navy with anger, dark anger	3
FLUID IN A CONTAINER	a bubble of anger well up in X's stomach, anger well (up) in X	3
HOT FLUID IN A CONTAINER	anger boil out of X, anger simmer under the surface, stoke anger to full boil	3
PHYSICAL STRENGTH	the force/power of anger	3
A SUPERIOR/AN INFERIOR	in command of anger, keep anger in its place	2
A CAPTIVE ANIMAL	handle anger	1
A CONTAINER	deep anger	1
BLIND	blind anger	1
COLD	snowcold anger	1
FOOD	seasoned with anger	1

Mapping: ANGER IS	Examples	n
PHYSICAL ANNOYANCE (I.E. PAIN)	a prickle of anger tweak the back of X's neck	1
A DISEASE	n/a	0
A MASK	n/a	0
A SOUND	n/a	0
A WEATHER PHENOMENON	n/a	0
INSANITY	n/a	0
OTHER	a knot of anger, anger resolve itself into a tight knot, anger run deep, use anger to immunize X against Y	5
Total		417

Appendix 2: More metaphorical mappings associated with *anger* found in the second phase of the analysis

Mapping: ANGER IS	Examples	n
A DISEASE	anger (and emotion) fester, anger be (an) infectious (disease), (long-)festering/frothing/impotent anger, feverish with anger, get infected with the virus of anger, livid with anger, purge anger, red froth [at the corner of X's mouth] from the anger at Y, sick with anger, symptom/symptomatic of anger	32
A MASK	X adopt a mask of anger, X be masked by anger, a mask of anger harden on X's face, a red mask of anger, anger be a mask for emotion, anger mask emotion, feeling be masked by anger, mask emotion with anger, mock anger be a mask for real anger, put on a mask of anger to hide emotion	16
A SOUND	quiet/silent anger	16
A WEATHER PHENOMENON	anger relent, try see past X's anger [but] the fog was total	3
INSANITY	anger spiral into violent madness, delirious from anger, half-mad/insane/mad with anger, insane anger, mad anger, mad beyond simple anger, maddened by anger	9

Appendix 3: Metaphorical mappings associated with *rage* found in the first phase of the analysis

Mapping: ANGER IS	Examples	n
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Mapping: ANGER IS	Examples	n
A POSSESSION	X's rage, have/share rage, rage be shared, sharing of rage, steal X's rage, the rage of X, trade out emotion for rage	82
A PLACE	(be) in (a) rage, climb out of rage, fly into a rage, go from rage, (go) into (a) rage, out of rage, send X into rage	59
A MOVING OBJECT	hold back rage, rage at/toward X, rage rumble/sweep through X, rage wants a target, send rage inward, target of rage, turn rage on X	23
AN OBJECT	bring rage, concealed rage beneath the irony, find X's rage, rage about/against/among/on/over X, underneath rage	21
A SUBSTANCE IN A CONTAINER (UNDER PRESSURE)	X be filled with/full of rage, a volcano of rage, contain rage, eyes/sound (be) filled with/full of rage, heart be bursting with rage, rage bottle inside X, rage build in/inside X/X's eyes, rage burst from emotion, rage fill X/the emptiness, rage find outlet, rage swell inside X, release of rage, stamp down a swell of rage	20
FIRE	a flare of rage, blazing fury of rage, consumed by/with rage, emotion flare into rage, fuel/spark rage, full of rage, hurt-fueled rage, on fire with rage, rage flare, red rage	15
AN OBJECT IN A LOCATION	cut the rage out of X, have rage inside, rage in X's eyes/heart, rage inside (X), rage on X's face, rage slide over X's brain, rage sweep across X's face, rage within X, rage work in X, room be heavy with rage	13
AN OPPONENT IN A STRUGGLE	control/fight/struggle with rage, have control over rage, overcome by rage, rage and its divisions, rage take X (over), repress/suppress rage, suppressed rage	11
PHYSICAL ANNOYANCE (I.E. PAIN)	a fit/spasm of rage	9
AN EXPLOSION	defuse/trigger/let off (X's) rage, explode with rage, explosion of rage, explosive rage, rage rip through X, snuff the rage fuse	8
A DISEASE	festering/frothing/impotent rage, livid with rage, symptom of rage	6
A LIQUID	a source/torrent/well of rage, rage flow through X's body, rage flush from every pore, the rage bubbled up from his gut and flowed out his shoulders down his arms into his fists in a red wave	6
BLIND	blind rage	5
HOT FLUID IN A CONTAINER	boiling rage, emotion boil over into rage, rage boil over, rage boil up in X, rage seethe	5
A MIXED OR PURE SUBSTANCE	distillation of rage, pure rage, stir X into rage	4
A SOUND	quiet/silent rage, silent rage	3

Mapping: ANGER IS	Examples	n
DARKNESS	black/dark rage	3
A CAPTIVE ANIMAL	feed rage, rage be unleashed	2
A MASK	face be contorted in a mask of rage, rage mask X	2
A NATURAL FORCE	rage engulf X, surge of rage wash over X	2
A SUPERIOR/AN INFERIOR	banish rage from awareness, ungovernable rage	2
AGGRESSIVE ANIMAL BEHAVIOR	rage gnaw away, wild rage	2
AN ORGANISM	growing rage, rage live inside X	2
FLUID IN A CONTAINER	a rage well up inside X, rage churn in X's stomach	2
FOOD	feed on rage, raw rage	2
INSANITY	insane/psychotic rage	2
LIGHT	blinded with rage, rage flash in X's eyes	2
A (DEAR) PERSON	foster rage	1
COLD	cold rage	1
HEAT	white-hot rage cool	1
PHYSICAL STRENGTH	the strength of rage	1
A BURDEN	n/a	0
A CONTAINER	n/a	0
A PLANT	n/a	0
A SLEEPING ORGANISM	n/a	0
A WEATHER PHENOMENON	n/a	0
HIGH/LOW	n/a	0
OTHER	[rage be] a bitter bile in X's mouth, be worn by rage, eyes be twisted in a rage, rage for X, stiff with rage	6
Total		323

Appendix 4: More metaphorical mappings associated with *rage* found in the second phase of the analysis

Mapping: ANGER IS	Examples	n
A BURDEN	(X) carry (a) rage (inside), burden/ weight of rage, carry a burden of rage, (expression) bear rage, rage be lifted	10
A CONTAINER	(a) deep rage, deepening rage, full rage, rage be three centuries deep	12
A PLANT	quick-blossoming rage, root/roots/seeds of (X's) rage, (seeds of) rage take root	14
A SLEEPING ORGANISM	(X) arouse rage (in Y), keep rage awake, rouse X into a rage	4
A WEATHER PHENOMENON	n/a	0
HIGH/LOW	X be in a high rage, X let rage rise, X's rage rise, as high as the rage, erupt into a high rage, height/level of (X's) rage, rage rise (up) (in/inside X), raise X's rage to a fighting level, rising rage	18

Appendix 5: Metaphorical mappings associated with *fury* found in the first phase of the analysis

Mapping: ANGER IS	Examples	n
A POSSESSION	X's fury, have fury, the fury of X	102
A PLACE	beyond fury, emotion take a leap to fury, fly into a fury, in (a) fury, send X into a fury, swing between fury and emotion	55
FIRE	X's heart burn with fury, a fury burn in X, blaze of fury (ignite X's face), burning (with) fury, eyes blaze/burn with fury, flames/flare of fury, fury flare, glare at X in fury, ignite/spark/stoke fury, red-looking fury, white fury	21
AN OBJECT	a fury locked away in X's mind, bring fury, fury about/against/on/over X, fury behind the murk, fury saved up, hide fury, immense fury	15
AN OPPONENT IN A STRUGGLE	be in a battle with fury, control fury, emotion give way to fury, fury give way to emotion, fury grip/shake/take/tear at X, give way to fury, seized by fury, the attack of fury, unappeased fury, uncontrollable fury	15
A MOVING OBJECT	fury at X, fury pass through X, turn fury against X	13

Mapping: ANGER IS	Examples	n
A SUBSTANCE IN A CONTAINER (UNDER PRESSURE)	X be filled with fury, burst of fury, contain fury, emotion swell into fury, eyes fill with a fury, full of fury, fury erupt, release fury, volcanic fury	13
AN OBJECT IN A LOCATION	X force a calm facade to slam down over X's fury, fury in/inside/within X, fury in (X's) glare/smile/voice/eyes, fury sprawl across X's features, fury with an overlay of emotion, the fury in the soul of X	12
A SOUND	fury pulse on X's tone, quiet/silent fury, the echo of fury, whirring fury	10
A DISEASE	fury fester into rage, fury relapse, impotent fury, sick with fury	6
HIGH/LOW	fury rise/reach peak, level of fury, stoke fury to a new level	6
COLD	cold fury, eyes icy with fury	5
DARKNESS	black/dark fury, eyes dark with fury, face cloud in fury, face turn black with fury	5
A LIQUID	fury course through X, plunge (X) into fury, send fury coursing through X	4
AGGRESSIVE ANIMAL BEHAVIOR	fury eat at X, fury roar, wild fury	4
AN EXPLOSION	explosive fury, fury explode (through X), set off a fury	4
LIGHT	eyes flash/glow/shine with fury, fury fade away	4
A CAPTIVE ANIMAL	unleash fury on X, unleashed fury	3
A CONTAINER	bottomless fury, full fury	3
A NATURAL FORCE	a live hurricane of fury, engulfed in fury, tide of fury	3
A WEATHER PHENOMENON	a fog of fury and emotion, fury relent	3
AN ORGANISM	fury grow, growing fury	3
FLUID IN A CONTAINER	fury pour out of X, fury slosh into X's marriage	3
A SLEEPING ORGANISM	arouse fury, rouse X to fury	2
A SUPERIOR/AN INFERIOR	fury banish emotion, ungoverned fury	2
FOOD	fresh fury, fury ripen	2
HEAT	cool the heat of X's fury, hot fury	2

Mapping: ANGER IS	Examples	n
A BURDEN	expression bear fury	1
A MASK	don a mask of fury	1
HOT FLUID IN A CONTAINER	fury seethe	1
INSANITY	mad fury	1
PHYSICAL ANNOYANCE (I.E. PAIN)	a fit of fury	1
A (DEAR) PERSON	n/a	0
A MIXED OR PURE SUBSTANCE	n/a	0
A PLANT	n/a	0
BLIND	n/a	0
PHYSICAL STRENGTH	n/a	0
OTHER	blond fury, carry a charge of fury and emotion, open fury on X, redolent with fury	4
Total		329

Appendix 6: More metaphorical mappings associated with *fury* found in the second phase of the analysis

Mapping: ANGER IS	Examples	n
A (DEAR) PERSON X	be met by fury, fury attract X	2
A MIXED OR PURE SUBSTANCE	fury be pure, mixture of fury and emotion, pure fury	9
A PLANT	fury be rooted in emotion, fury begin to blossom, root X's fury in emotion, seeds of fury	4
BLIND	blind fury	15
PHYSICAL STRENGTH	force of (X's) fury, fury maintain its force, powerful fury, strength of fury	5

Appendix 7: Metaphorical mappings associated with *wrath* found in the first phase of the analysis

Mapping: ANGER IS	Examples	n
A POSSESSION	X's wrath, have wrath in store for X, return wrath to X, the wrath of X	322
A MOVING OBJECT	call down on X the wrath of Y, call down the wrath of X on Y, draw X's wrath upon Y, duck/waylay X's wrath, target for/of wrath, turn away wrath, turn wrath on/onto X, wrath at/toward X, wrath come upon/down on X, wrath descend on Y, wrath from X, wrath shift away from X and onto Y	32
AN OBJECT	bring X the wrath of Y, bring X's wrath down on/upon Y, bring (down) the wrath of X (on/upon Y), bring down wrath, reveal wrath, the transfer of divine wrath to the Son, wrath against/upon X	25
A (DEAR) PERSON	accommodate/invite X's wrath/the wrath of X, meet (with) the wrath of X, meet wrath	7
FIRE	fan/kindle wrath, fire-spitting wrath, ignite wrath (to another level)	5
A BURDEN	a ton of wrath, bear X's wrath, the weight of wrath	4
A CONTAINER	the full wrath of X	4
A PLACE	in wrath, work X into a wrath	4
A SLEEPING ORGANISM	arouse/awaken wrath	4
AN OPPONENT IN A STRUGGLE	appease wrath, mobilize the wrath of X, wrath overcome emotion, wrath seize control of X's body	4
FLUID IN A CONTAINER	pour out X's wrath on Y's head, pour out (the vials of the) wrath, pour wrath on X	4
PHYSICAL ANNOYANCE (I.E. PAIN)	a spasm/sting of wrath, a strain of wrath in X's voice	4
A CAPTIVE ANIMAL	unleash the wrath of X, unleash wrath on X	3
AGGRESSIVE ANIMAL BEHAVIOR	fall prey to X's wrath, snarling wrath	2
DARKNESS	face darken/grow dark with wrath	2
A LIQUID	absorb wrath	1
A MIXED OR PURE SUBSTANCE	wrath dissolve into emotion	1

Mapping: ANGER IS	Examples	n
A SOUND	wrath echo	1
A SUBSTANCE IN A CONTAINER (UNDER PRESSURE)	fill X with wrath	1
AN EXPLOSION	detonate with wrath	1
AN OBJECT IN A LOCATION	wrath assume unprecedented proportions	1
COLD	insulate X from wrath	1
HEAT	wrath cool	1
HIGH/LOW	wrath rise higher	1
HOT FLUID IN A CONTAINER	X be a boiling cauldron of wrath	1
LIGHT	wrath fade	1
A DISEASE	n/a	0
A MASK	n/a	0
A NATURAL FORCE	n/a	0
A PLANT	n/a	0
A SUPERIOR/AN INFERIOR	n/a	0
A WEATHER PHENOMENON	n/a	0
AN ORGANISM	n/a	0
BLIND	n/a	0
FOOD	n/a	0
INSANITY	n/a	0
PHYSICAL STRENGTH	n/a	0
OTHER	foul wrath	1
Total		438

Appendix 8: More metaphorical mappings associated with *wrath* found in the second phase of the analysis

Mapping:	Examples	n
ANGER IS		
A DISEASE	n/a	0
A MASK	n/a	0
A NATURAL FORCE	waves rise up against X, the seas, the wrath of rulers	1
A PLANT	n/a	0
A SUPERIOR/AN INFERIOR	n/a	0
A WEATHER PHENOMENON	X's wrath relent	1
AN ORGANISM	n/a	0
BLIND	blind wrath	1
FOOD	bitter wrath	1
INSANITY	n/a	0
PHYSICAL STRENGTH	the force of wrath	1