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# HAPPINESS in English and German: A metaphorical-pattern analysis

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## 1 Introduction

Despite the continuing interest in metaphor on the one hand and a growing interest in corpus-based methods on the other, few studies have attempted to combine these two—presumably because metaphorical mappings by their very nature are not systematically associated with particular words and expressions and thus cannot be straightforwardly retrieved.

In this paper I demonstrate a corpus-based method of investigating metaphorical target domains and apply it to a contrastive analysis of metaphors associated with two English emotion words and their German translation equivalents: *happiness* and *Glück*, as well as *joy* and *Freude*. I show that there are item-specific and language-specific differences in the degree to which these words participate in particular metaphorical mappings.

## 2 Theoretical and Methodological Prerequisites

### 2.1 The Conceptual Theory of Metaphor

The conceptual theory of metaphor views individual metaphorical expressions as resulting from general mappings between a (typically concrete) source domain, and a (typically abstract) target domain (cf. Lakoff 1993: 208). Metaphor is not seen as a primarily linguistic phenomenon, but as a psychological phenomenon whereby our experience of physical domains

guides our understanding of abstract domains (cf. Lakoff 1993: 208). For example, the abstract domain TIME is understood in terms of the concrete domain SPACE via the TIME-AS-SPACE mapping, which may manifest itself differently in different languages but is likely to be near-universal (cf. Lakoff 1993: 224-5); in contrast, a mapping like TIME IS MONEY is restricted to cultures where money is used and has a central status.

Cognitive metaphor research has focused on uncovering large-scale mappings rather than an exhaustive description of the specific linguistic items instantiating these mappings in a particular language. Such studies are mostly based on introspective data or more or less systematically collected citations. This is not a major problem if the aim is to establish the existence of a particular mapping, but it runs into difficulties if the aim is the systematic characterization of a specific source or target domain or the comparison of its linguistic manifestations in different languages. First, it is difficult to decide whether the metaphors relevant to a particular target domain have been exhaustively charted; second, it is impossible to quantify the results in order to determine the importance of a given metaphor in a given language; third, it is difficult to determine a standard for crosslinguistic comparison.

## 2.2   A Corpus-Based Approach to Metaphor

For methodological reasons, the (orthographic) word plays a central role in corpus linguistics: as corpora are accessed via word forms, corpus-based studies typically take the word as a focal point around which observations are made and theories are built. At first glance, this does not make corpus linguistics an ideal research tool for the investigation of metaphor, as metaphorical mappings cannot be uniquely identified by particular words or formal properties. This is unproblematic for source-domain oriented studies (e.g. Barlow 1997, Deignan 1999), as metaphorical expressions necessarily contain words from the source domain, and can thus be identified exhaustively. For target-domain oriented studies this is impossible, as metaphorical expressions do not necessarily contain words from the target domain:

(1)     a.     HAPPY IS UP: I am *six feet off the ground*, Thinking about her gives me a *lift* (Kövecses 1998, Lakoff and Johnson 1980).
        b.     HAPPINESS IS A LIQUID: She *bubbled* with joy, There was an *outpouring* of joy, What is your *source* of happiness?

The examples in (1a) do not contain any linguistic clues to HAPPINESS, and thus could not be retrieved automatically for a study of this target domain. In contrast, the examples in (1b) contain words from the target domain, *joy* and *happiness*, occurring in syntactic/semantic frames from the source domain LIQUID (*bubble with NP, outpouring of NP, source of NP*). A

corpus search for a word like *happiness* allows us to identify all such frames (which I will refer to as *metaphorical patterns*, cf. Stefanowitsch, submitted) in which this word occurs. Metaphorical pattern analysis resolves most of the problems outlined above, and although it captures only those metaphors manifesting themselves as metaphorical patterns for specific lexical items, these metaphors are particularly interesting as they allow us to investigate systematically and exhaustively how specific concepts expressed by individual lexical items in specific languages interact with large-scale conceptual mappings found in many different languages.

## 3  Two Case Studies

One application of metaphorical pattern analysis is the investigation of culture- and language-specific differences between translation equivalents; the possibility is intriguing that words may interact with metaphorical mappings in language-specific ways.

Crosslinguistic corpus studies require comparable corpora. As no such corpora are readily available for English and German, I used news texts available via the web archives of ten German and ten American newspapers, whose web sites returned at least thirty hits for each of the relevant words using the search engine *Webcorp*. This yielded 983 hits for *happiness*, 863 for *joy*, 865 for *Glück,* and 1376 for *Freude*. To render the frequencies of individual metaphorical mappings discussed below immediately comparable, they were normalized relative to 1000 hits; statistical tests were performed using the original frequencies. The choice of news texts limits the scope of this study somewhat, but newspapers are a significant part of public discourse and are thus representative of the way in which a speech community publicly constructs its cultural models through language.

## 3.1  Culture-Specific Differences in the Intensity of Emotions

One way in which translation equivalents may differ is the way in which the nature of the concepts associated with them is conceptualized in the languages in question.

Goddard (1998: 94) claims that the English words *happy* and *happiness* have a 'comparatively muted quality' in comparison to their translation equivalents in other European languages, such as German *glücklich* and *Glück* and French *hereux* and *bonheur*; these 'imply an intense but generalized and almost euphoric view of one's own current existence', more like English *joy*. German and French also have translation equivalents for *joy* (*Freude* and *joie*), which encode emotions that are intuitively more intense

than those encoded by *Glück* and *bonheur* in the same way that *joy* is more intense than *happiness*; Goddard's claim is thus limited to differences between *Glück/bonheur* and *happiness*. If such differences exist, they might show up in the metaphorical mappings in which the words participate. Goddard implicitly suggests such a difference: '[s]peaking metaphorically, emotions such as *Glück* and *bonheur* fill a person to overflowing, leaving no room for any further desires or wishes' (Goddard 1998: 93). This suggests that the degree to which an emotion concept participates in the EMOTION-AS-LIQUID mapping may correlate with the intensity of the corresponding emotion.

In order to test this hypothesis, I extracted all metaphorical patterns instantiating the metaphors EMOTION-AS-LIQUID and EXPERIENCER-AS-CONTAINER. We would expect these metaphors to be more frequent for *joy* than for *happiness*, and more frequent for *Glück* than for *happiness*. The total number of patterns instantiating these mappings is 32 (31) for *happiness*, 64 (55) for *joy*, 25 (22) for *Glück*, and 63 (86) for *Freude*. The within-language differences are highly significant, providing evidence for the hypothesis that the frequency of LIQUID metaphors correlates with the intensity of an emotion (Fisher exact, *happiness* vs. *joy*, p<0.001; *Glück* vs. *Freude*, p<0.001); but the between-language differences are *not* significant, providing initial evidence against the claim that *Glück* is more intense than *happiness* (*happiness* vs. *Glück*, p>0.1; *joy* vs. *Freude*, p>0.1).

However, a detailed analysis of the specific mappings instantiating the LIQUID and CONTAINER mappings yields a more complex picture. First, consider the examples in (2) and (3), which map the property of (im)purity from LIQUIDs to EMOTIONs (here and below, the overall normalized frequency of the patterns instantiating a mapping are given for each word, followed by the actual frequency and an exhaustive list of the patterns themselves; German examples are paraphrased as literally as possible rather than translated into idiomatic English):

(2)  E IS A PURE LIQUID
   a.  HAPPINESS 2 (3): *pure* $NP_E$
   b.  JOY 14 (12): *pure* $NP_E$
   c.  GLÜCK 2 (2): *pur-* $NP_E$ 'pure E', *rein-* $NP_E$ 'pure E'
   d.  FREUDE 19 (26): *pur-* $NP_E$ 'pure E', *rein-* $NP_E$ 'pure E', *ungetrübt-* $NP_E$ 'uncontaminated E'

(3)  E IS AN IMPURE LIQUID
   a.  HAPPINESS 8 (8): $NP_E$ *mixed together*, *mix of* $NP_E$, *mixture of* $NP_E$, *laced with* $NP_E$, *drop in* $NP_E$
   b.  JOY 3 (3): *mixture of* $NP_E$

    c.   GLÜCK 2 (2): *nicht ungetrübt-* $NP_E$ 'not uncontaminated E', *Wermutstropfen in* $NP_E$ 'drop of vermouth in E'

    d.   FREUDE 15 (20): *trüben* $NP_E$ 'contaminated E', *nicht ungetrübt-* $NP_E$ 'not uncontaminated', *mischen REFL in N* $P_E$ 'mix into E', *getrübt-* $NP_E$ 'contaminated E', *Mischung aus* $NP_E$ 'mixture of E'

In the case of the mapping in (2), the within-language differences are significant (*happiness* vs. *joy* $p<0.05$; *Glück* vs. *Freude* $p<0.001$), but the across-language difference is not (*happiness* vs. *Glück* $p>0.1$); in the case of the mapping in (3), the within-language difference is significant for German but not for English, and the cross-language difference is not significant (*happiness* vs. *joy*, $p>0.1$; *Glück* vs. *Freude*, $p<0.01$; *happiness* vs. *Glück* $p<0.1$). In other words, *joy* and *Freude* are conceptualized as PURE LIQUIDS more frequently than *happiness* and *joy*; this fits in with the idea of an emotion that is so intense that it leaves no room for other emotions, but there is no difference between *Glück* and *happiness* with respect to this mapping.

Let us now turn to the metaphorical mappings most directly related to the distinction suggested by Goddard, THE EXPERIENCER OF AN EMOTION IS A CONTAINER, and AN EMOTION IS A LIQUID FILLING THE EXPERIENCER:

(4)    a.   HAPPINESS 9 (9): *filled with* $NP_E$, *open sb (up) to* $NP_E$, $NP_E$ *enter heart, hold* $NP_E$, $NP_E$ *be in sb, contain* $NP_E$, *drain* $NP_E$ *out of sb*

    b.   JOY 21 (18): *fill sb with* $NP_E$, $NP_E$ *fill sb, full of* $NP_E$, *open sb (up) to* $NP_E$, *hold* $NP_E$, *contain* $NP_E$

    c.   GLÜCK 8 (7): *voll(er)* $NP_E$ 'full of E', *fass-* $NP_E$ 'hold E', *inner-* $NP_E$ 'inner E'

    d.   FREUDE 20 (28): *voll(er)* $NP_E$ 'full of E', *erfüllen jmd mit* $NP_E$ 'fill PERSON with E', *erfüllt mit* $NP_E$ 'filled with E', *fassen* $NP_E$ 'hold E', *inner-* $NP_E$ 'inner E', $NP_E$ *sein Inhalt* 'E be contents', $NP_E$ *aufnehmen* 'take up E', $NP_E$ *sein in* 'E be in'

Again, the within-language differences are significant, but the between-language differences are not (*happiness* vs. *joy*, $p<0.05$; *happiness* vs. *Glück* $p>0.1$; *Glück* vs. *Freude*, $p<0.05$), but a different picture emerges when we look at metaphorical patterns that conceptualize the experiencer of a very intense emotion as a container that is unable to contain a liquid:

(5)    a.   HAPPINESS 3 (3): *bubble with* $NP_E$, *uncontainable* $NP_E$, *overflow with* $NP_E$

    b.   JOY 14 (12): *burst with* $NP_E$, $NP_E$ *burst through body, erupt* $NP_E$, *overflow with* $NP_E$, *bubble with* $NP_E$, *surge of* $NP_E$, *burst of* $NP_E$, *explosion of* $NP_E$, *explode with* $NP_E$

    c.   GLÜCK 8 (7): *platzen vor* $NP_E$ 'burst with E', *unfassbar-* $NP_E$ 'un-hold-able E', $NP_E$ *übersprudeln* 'E overflow', $NP_E$ *überschwemmen PERSON* 'E flood PERSON', *explodieren vor* $NP_E$ 'explode with E'

    d.   FREUDE 4 (6): *überschäumend-* $NP_E$ 'over-bubbling E', $NP_E$ *überschwemmen PERSON* 'E flood PERSON',

As expected, and as seen with the other mappings, this mapping is significantly more frequent with *joy* than with *happiness* (p<0.01), but unlike the case of the other mappings, it is actually more frequent with *Glück* than with *Freude*, although this difference does not reach significance (p=0.2). The direct comparison between *happiness* and *Glück* shows a statistical trend towards significance (p=0.12). These results may be interpreted as support for the claim that *Glück* denotes a more intense emotion than *happiness*: with respect to this pattern, it is very similar to *Freude*, while *happiness* is clearly very different from *joy*.

Finally, for completeness' sake, consider (6), which shows the remaining patterns instantiating the EMOTION-AS-LIQUID mappings:

(6)   OTHER METAPHORICAL PATTERNS

    a.   HAPPINESS 8 (8): *source of* $NP_E$, *fountain of* $NP_E$, *sea of* $NP_E$, *thirst after* $NP_E$, *thirst for* $NP_E$, $NP_E$ *come in small doses*

    b.   JOY 9 (8): $NP_E$ *spring from*, *source of* $NP_E$, $NP_E$ *well up*, *sweep away with* $NP_E$, $NP_E$ *wash through PERSON*, *inject* $NP_E$,

    c.   GLÜCK 5 (4): *(ver-/zurück-)sinken in* $NP_E$ 'sink (back) into E', *trunken vor* $NP_E$ 'drunk with E', $NP_E$ *sein Champagner* 'E be champagne'

    d.   FREUDE 9 (13): *Quelle* $NP_E$.*GEN* 'source of E', $NP_E$ *entspringen aus* 'E spring from', *schöpfen* $NP_E$ *aus* 'scoop E from', $NP_E$ *davontragen PERSON* 'E carry away PERSON, $NP_E$ *verebben* 'E ebb away', *Pokal* $NP_E$.*GEN* 'cup of E', *Glas* $NP_E$.*GEN* 'glass of E'

A full discussion of these patterns would reveal further interesting differences; note, for example, that *joy* and *Freude* but not *happiness* and *Glück* occur with expressions like *sweep/carry away*.

## 3.2   Attaining HAPPINESS in English and German

A second way in which translation equivalents may differ is the way in which speakers of a language conceptualize the relationship between the concept associated with these words and other concepts. In this section I will look at one such case, namely the metaphors associated with attaining the emotional state referred to by *happiness*, *joy*, *Glück*, and *Freude*, i.e. the relationship between BECOMING and EMOTIONS. There are two major metaphorical models: one where a person attempting to attain an emotional state

is conceptualized as moving toward an entity or location (referred to here as the QUEST model), and one where a person attaining an emotion is conceptualized as a receiver of an emotion (referred to as the TRANSFER model). These models are directly related to the dual nature of the general EVENT STRUCTURE metaphor, which either construes states/events as locations and changes as movements of participants relative to these locations (Lakoff and Johnson 1999: 179), or states/events as objects and changes as movements of these objects relative to participants (Lakoff and Johnson 1999: 196).

Let us begin with the QUEST model. The total number of patterns instantiating this model in the corpus is 158 (155) for *happiness*, 25 (22) for *joy*, 136 (118) for *Glück*, and 8 (11) for *Freude*. Thus the within-language difference is significant in both languages (*happiness* vs. *joy*, p<0.001; *Glück* vs. *Freude*, p<0.001), but the between-language difference is significant for *joy* vs. *Freude* (p<0.001), but only marginally so for *happiness* vs. *Glück* (p=0.11). Again, however, a closer look at more specific mappings reveals intriguing differences between the two languages.

First and most strikingly, there is a clear difference between English and German with respect to how the quest for the emotional state is conceptualized. In German the preferred mapping is the one shown in (7), where *Glück* is conceptualized as a static entity or location, and a person attempting to attain *Glück* is conceptualized as someone searching for this entity or location:

(7)     TRYING TO ACHIEVE E IS SEARCHING FOR E
   a.   HAPPINESS 17 (17): *look for* $NP_E$, *seek (out)* $NP_E$, *search (for)* $NP_E$, *in search of* $NP_E$, *quest for* $NP_E$, *seekers of* $NP_E$
   b.   JOY 3 (3): *look for* $NP_E$, *seek (out)* $NP_E$, *grope toward* $NP_E$
   c.   GLÜCK 52 (45): *Suche nach* $NP_E$ 'search for E', *suchen* $NP_E$ 'search (for) E', *buddeln nach* $NP_E$ 'dig for E'
   d.   FREUDE 0 (0)

In both languages, this mapping is marginal or absent for *joy*/*Freude* (note that the small difference between *joy* and *Freude* is not significant, p<0.1), but to some degree present for *happiness*/*Glück* (*happiness* vs. *joy* p<0.01; *Glück* vs. *Freude*, p<0.001); crucially, however, with respect to the latter, it is much more frequently found in German than in English (*happiness* vs. *Glück*, p<0.001).

The preferred mapping in English is one where *happiness* is seen as a moving entity, and a person attempting to attain *happiness* is seen as someone pursuing this entity:

(8)     TRYING TO ATTAIN E IS PUSRUING E
   a.   HAPPINESS 61 (60): *pursuit of* $NP_E$, *pursue* $NP_E$

    b.   JOY 0 (0)

    c.   GLÜCK 9 (8): *Jagd nach* $NP_E$ 'hunt for E', *jagen nach* $NP_E$ 'hunt (for) E', *nachspüren* $NP_E$ 'track E', *sein* $NP_E$ *auf der Spur* 'be on the track of E', *fischen nach* $NP_E$ 'fish for E', *hinterherzischen* $NP_E$ 'whiz after E', *nachrennen* $NP_E$ 'run after E'

    d.   FREUDE 0 (0)

Again, the mapping is absent for *joy/Freude*, thus the within-language difference is significant in both languages (*happiness* vs. *joy*, p<0.001; *Glück* vs. *Freude* p<0.001); but with respect to *happiness/Glück* the mapping is much more frequent in English (*happiness* vs. *Glück*, p<0.001).

Note that the between-language difference with respect to the mappings in (7) and (8) is not absolute: both mappings are available in both languages. However, speakers of (American) English prefer the more active and dynamic PURSUIT mapping, while speakers of German prefer the less active and dynamic SEARCH mapping. This may be due to a general American ideology that sees individuals as responsible for their well-being, and favors an active, deliberate, 'hands-on' approach to attaining it.

A second striking difference concerns the actual attainment of an emotion, conceptualized as the end point of the quest; as FINDING an entity (consistent with the SEARCH model); or as CAPTURING an entity (consistent with the PURSUIT model). Consider, first, the FIND metaphor:

(9)   ATTAINING E IS FINDING E

    a.   HAPPINESS 63 (62): *find* $NP_E$, *newfound* $NP_E$, *(re)discover* $NP_E$, *reach* $NP_E$

    b.   JOY 18 [21]: *find* $NP_E$, *(re)discover* $NP_E$

    c.   GLÜCK 21 (28): *finden* $NP_E$ 'find E', *entdecken* $NP_E$ 'discover E', $NP_E$ *sein in Reichweite* 'E be within reach', *erreichen* $NP_E$ 'reach E'

    d.   FREUDE 8 (11): *finden* $NP_E$ 'find E', *entdecken* $NP_E$ 'discover E'

Here the within-language differences are highly significant, in that *happiness/Glück* occur with this mapping much more frequently than *joy/Freude* (*happiness* vs. *joy*, p<0.001; *Glück* vs. *Freude*, p<0.001), but there is also a significant between-language difference in that this mapping is generally more frequent in English than in German (*happiness* vs. *Glück*, p<0.01; *joy* vs. *Freude*, p<0.01). For the CAPTURE mapping, the same trend can be observed for the within-language difference, but the between-language difference is not significant (*happiness* vs. *joy*, p=0.15; *happiness* vs. *Glück*, p>0.1; *joy* vs. *Freude*, p>0.1; *Glück* vs. *Freude*, p<0.05):

(10)   ATTAINING E IS CAPTURING E

    a.   HAPPINESS 3 (3): *capture* $NP_E$, *grab* $NP_E$, *snatch at* $NP_E$

    b.   JOY 0 (0)

    c.   GLÜCK 5 (4): *ergreifen* $NP_E$ 'grab/capture E', *haschen* $NP_E$ 'capture E', *zu fassen bekommen* $NP_E$ 'manage to grab E', *bekommen* $NP_E$ *in die Hand* 'get E in one's hands'

    d.   FREUDE 0 (0)

It is intriguing that the CAPTURE mapping is so infrequent even in English, where it would form a logical part of the PURSUIT mapping; I have no solution for this puzzle at present. Instead, let us consider why the FIND mapping is so much more frequent in English than in German. A hint may be supplied by the last mapping in the QUEST model, which views the process of attaining an emotion as a journey to a location:

(11)   THE PROCESS OF ATTAINING E IS A JOURNEY TO E

    a.   HAPPINESS 13 (13): *way to* $NP_E$, *obstacle to* $NP_E$, *guide to* $NP_E$, *path to* $NP_E$, *impediment to* $NP_E$, *pathway to* $NP_E$, $NP_E$ *be a goal*

    b.   JOY 1 (1): *way to* $NP_E$

    c.   GLÜCK 38 (33): *Weg zu/in* $NP_E$ 'way (in)to E', *X stehen* $NP_E$ *im Weg* 'X stand in E's way', *Pfad zu* $NP_E$ 'path to E', *Countdown in* $NP_E$ 'countdown to E', *stressfrei in* $NP_E$ 'stress-free to E', *Ticket in* $NP_E$ 'ticket to E', *Start in* $NP_E$ 'departure to E', *starten in* $NP_E$ 'depart towards E', *Fahrt in* $NP_E$ 'trip to E', *Reise zu* $NP_E$ 'journey to E', *Schritt in* $NP_E$ 'step into E', *Bewegung zu* $NP_E$ 'move toward E'

    d.   FREUDE 0 (0)

Again, the mapping is almost or completely absent for *joy* and *Freude*, but significantly frequent for *happiness* and *Glück* (*happiness* vs. *joy*, p<0.01; *Glück* vs. *Freude*, p<0.001); more interestingly, however, it is much more frequent for *Glück* than for *happiness* (*happiness* vs. *Glück*, p<0.001). Thus it might be argued that speakers of (American) English simply place a higher emphasis on the endpoint of the quest, while speakers of German place a higher emphasis on the quest itself. Again, this may be due to a general American ideology that places high value on—and firmly believes in the possibility of—reaching one's goals in life.

Let us now turn to the TRANSFER model. The total number of patterns instantiating this mapping is 100 (102) for *happiness*, 120 (139) for *joy*, 57 (66) for *Glück*, and 68 (49) for *Freude*. Here the within-language difference is significant for English (*happiness* vs. *joy*, p<0.01) but only marginally so for German (*Glück* vs. *Freude*, p=0.06); also, both between-language differences are significant (*happiness* vs. *Glück*, p<0.01; *joy* vs. *Freude* p<0.001). The TRANSFER model is significantly more frequent in English than in German, and significantly more frequent for *joy* than for *happiness*; it is also more frequent for *Glück* vs. *Freude*, but the difference is only

marginally significant. Let us now look at three more specific mappings within the TRANSFER model, beginning with the giver's perspective:

(12) (POTENTIALLY) MAKING SOMEONE E IS (POTENTIALLY) GIVING SOMEONE E

    a. HAPPINESS 68 (67): *bring* $NP_E$, *give* $NP_E$, *provide* $NP_E$, *gift of* $NP_E$, *giver of* $NP_E$, *send* $NP_E$, *add* $NP_E$ *to Y*, *take (away)* $NP_E$, *spread* $NP_E$, *share* $NP_E$, *grant* $NP_E$, *assure* $NP_E$, *guarantee* $NP_E$, *offer* $NP_E$

    b. JOY 126 (109): *bring* $NP_E$, *give* $NP_E$, *take (away)* $NP_E$, *provide* $NP_E$, *bringer of* $NP_E$, *gift of* $NP_E$, *carry* $NP_E$ *to*, *replace* $NP_E$, *put* $NP_E$ *into*, *treat to* $NP_E$, *theft of* $NP_E$, *spread* $NP_E$, *share* $NP_E$, *allow* $NP_E$, *offer* $NP_E$

    c. GLÜCK 43 (37): *bringen* $NP_E$ 'bring E', *(ab)geben* $NP_E$ 'give E', *(ver)schenken* $NP_E$ 'give (away) E', *jmd. zu* $NP_E$ *verhelfen* 'help sb to E', *spenden* $NP_E$ 'bestow E on', *nehmen* $NP_E$ 'take (away) E', *betrügen Y um* $NP_E$ 'cheat Y out of E', *garantieren* $NP_E$ 'guarantee E', *versprechen* $NP_E$ 'promise E', *verheissen* $NP_E$ 'promise E', *Garant für* $NP_E$ 'guarantor of E', $NP_E$ *sein beschieden* 'E be granted'

    d. FREUDE 44 (61): *bringen* $NP_E$ 'bring E', *teilen* $NP_E$ 'share E', *(ab)geben* $NP_E$ 'give E', *(ver)schenken* $NP_E$ 'give (away) E', *vermitteln* $NP_E$ 'supply E', *bescheren* $NP_E$ 'present (sb) with E', *verbreiten* $NP_E$ 'spread E', *für* $NP_E$ *sorgen* 'take care of E', *nehmen* $NP_E$ 'take (away) E', *rauben* $NP_E$ 'rob sb of E', *bieten* $NP_E$ 'offer E'

We find the same proportions for this mapping that we find for the total number of expressions instantiating the model, except that the difference between *Glück* and *Freude* is not even marginally significant (*happiness* vs. *joy*, $p<0.001$; *happiness* vs. *Glück*, $p<0.05$; *joy* vs. *Freude* $p<0.001$; *Glück* vs. *Freude* $p>0.1$). When we take the receiver's perspective, we find the reverse situation:

(13) (POTENTIALLY) BECOMING E IS (POTENTIALLY) RECEIVING E

    a. HAPPINESS 11 (11): *get* $NP_E$, *receive* $NP_E$, *accrue* $NP_E$, *gain* $NP_E$, *obtain* $NP_E$, *loss of* $NP_E$, *right to* $NP_E$

    b. JOY 10 (9): *get* $NP_E$, *receive* $NP_E$, *gain* $NP_E$, *lose* $NP_E$, *deserve* $NP_E$

    c. GLÜCK 14 (12): *empfangen* $NP_E$ 'receive E', *zurückholen* $NP_E$ 'retrieve E', $NP_E$ *sein ein Lohn* 'E be a reward', *verdienen* $NP_E$ 'earn E', *erlangen* $NP_E$ 'gain E', *borgen* $NP_E$ 'borrow E', *entgehen lassen* $NP_E$ 'let E slip by', *Verzicht auf* $NP_E$ 'renouncement of E', *Anspruch auf* $NP_E$ 'claim to E', *Anrecht auf* $NP_E$ 'right to E', *um* $NP_E$ *bitten* 'ask for E', $NP_E$ *verlangen* 'request E'

    d. FREUDE 5 (7): *verlieren* $NP_E$ 'lose E', *teilhaben an* $NP_E$, 'partake in E', $NP_E$ *werden X zuteil* 'X receive E', $NP_E$ *fordern* 'request E'

Here none of the differences are significant except for *Glück* vs. *Freude* (*happiness* vs. *joy*, p>0.1; *happiness* vs. *Glück*, p>0.1; *joy* vs. *Freude* p=0.11; *Glück* vs. *Freude*, p<0.05). Finally, an intriguing difference emerges when we look at various mappings that conceptualize an emotion as a valuable good which may be bought (actually, most of the examples are in the negative, i.e., they are statements that *happiness*/*Glück* can *not* be bought):

(14)  BECOMING E IS BUYING E AND OTHER COMMERCIAL METAPHORS
   a.  HAPPINESS 23 (23): *buy NP$_E$, NP$_E$ be for sale, pay for NP$_E$, payoff in NP$_E$, buy one's way to NP$_E$, NP$_E$ be a shopping mall away, hard won NP$_E$, money be the end to NP$_E$, NP$_E$ be a luxury, owe NP$_E$*
   b.  JOY 3 (3): *buy NP$_E$, NP$_E$ be a resource, NP$_E$ be in short supply*
   c.  GLÜCK 9 (8): *kaufen NP$_E$* 'buy E', *NP$_E$ sein ein Wert* 'E be valuable', *NP$_E$ sein teuer* 'E be expensive', *NP$_E$ sein eine Ressource* 'E be a resource', *NP$_E$ sein ein Gut* 'E be valuable', *verdanken NP$_E$* 'owe E to sb'
   d.  FREUDE 0 (0)

This mapping is vastly more frequent for *happiness* and *Glück* than for *joy* and *Freude* (*happiness* vs. *joy*, p<0.001; *Glück* vs. *Freude*, p<0.001), and, crucially, it is also much more frequent for *happiness* than for *Glück* (*happiness* vs. *Glück*, p<0.05; *joy* vs. *Freude* p=0.06). Clearly, then, *happiness* is much more frequently conceptualized in a commercial frame in (American) English than in German; the same trend emerges for the TRANSFER model as a whole.

Again, these differences suggest differences in the cultural ideologies underlying them; we could argue that speakers of American English are much more likely to understand the attainment of *happiness* in terms of a commercial transaction than Germans are in the case of *Glück* because commercial transactions play a more important role in contemporary American culture than in contemporary German culture, and because there is a stronger belief in the power of money in America.[1] This is intuitively plausible for someone familiar with the two cultures, although, like the

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[1] Of course, the present study cannot address the issue of whether the differences in the conceptualization of emotions found between speakers of German and American English are in fact limited to the domain of emotions, or whether they are part of a more widespread pattern. As one reviewer rightly pointed out, Americans may well use more commercial transaction metaphors in general, and in fact this would be expected if the explanation I propose here is on the right track. Detailed corpus studies of many different target domains are necessary before we can determine the degree to which a given metaphor in a given culture plays a central role in a particular domain *as opposed to other domains*.

other suggestions made in this section with respect to cultural models, it is to be taken as an initial hypothesis rather than solid claims. Further research is certainly necessary; in this context, a comparative study of the public discourses in different English-speaking cultures might be useful, as it would allow us to separate more clearly linguistic (and perhaps cognitive) factors from cultural ones.

## 4    Conclusion

The brief case studies presented in this paper have shown that a corpus-based study of target domains is possible if we move lexical items into the focus of our investigation. We can retrieve a large number of instances of a lexical item from a corpus and identify the metaphorical patterns that it occurs with. We can also quantify the importance of any given metaphorical pattern for a particular lexical item.

With respect to the emotion terms chosen here to exemplify the approach, I have shown that there are indeed language-specific differences concerning the way in (and the degree to) which translation equivalents in English and German participate in metaphorical mappings found in both languages. These differences may concern the way in which the nature of an emotion is conceptualized (e.g. regarding its intensity), or the role that an emotion plays (in relation to other concepts) in the culture in question (e.g. regarding beliefs about how it can or cannot be attained).

Metaphorical pattern analysis complements previous corpus-based research, which has focused exclusively on source domains. Although it is clearly restricted to a particular type of metaphorical expression it can contribute substantially to the investigation of central questions concerning metaphorical mappings, like the universality or language-specificity of metaphorical mappings. This issue has recently attracted renewed interest (cf. e.g. the contributions in Steen, to appear), and metaphorical pattern analysis is one of several empirical tools that may be used in addressing it.

## Data Sources

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GERMAN: *Berliner Morgenpost* (morgenpost.berlin1.de), *Frankfurter Allgemeine Zeitung* (faz.net), *Hamburger Abendblatt* (abendblatt.de), *Mannheimer Morgen* (morgenweb.de), *Ostsee Zeitung* (ostsee-zeitung.de), *Rhein Zeitung* (rhein-

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