## A. Stefanowitsch
Berlin, Germany

## THE FOUR C'S: CONCEPTUALIZATION, CONVENTION, CULTURE AND CREATIVITY IN CORPUS DATA

Collocational relationships between words and grammatical structures (whether in the form of grammar patterns or collostructions) have become an established dimension of semantic description over the past thirty years, but the precise nature of the dimensions of meaning reflected in such relationships remains to be determined. This paper suggests four factors that contribute to the co-occurrence of linguistic items and thus to collocation: (i) the conceptualization of the content that the speaker intends to express, (ii) the cultural context of an utterance, (iii) linguistic conventions, and (iv) linguistic creativity. A case study of the English ditransitive and the "dative" construction with *to* is presented to demonstrate the influence of these four factors.

K e y   w o r d s: *collocation, collostructional analysis, conceptualization, culture, convention, creativity.*

## 1. Introduction

In his 1951 paper *Modes of Meaning*, J.R. Firth introduced the idea of "meaning by collocation" – the idea that at least some aspects of a word's meaning lie in the words it frequently co-occurs with [1]. In 1961, the first balanced 1-million-word corpus – the BROWN corpus – was released, enabling researchers to put this idea to the test. However, by that time, Chomsky's influential work *Syntactic Structures* [2] had already convinced most linguists that corpora had nothing to offer to linguistic theory, and so it took another thirty years – until Sinclair's *Corpus, Concordance, Collocation* [3] – for the idea of collocational meaning to enter mainstream linguistic thought.

It quickly became clear that strong and stable collocational relationships can be observed between content words and other content words, but also between content words and (sequences of) function words [4], grammar patterns [5] and grammatical constructions [6; 7], and such relationships have since become a dimension of linguistic description in their own right, reflected, for example, in dictionaries of collocations and in the inclusion of grammar patterns in dictionaries.

However, it still remains an open question what aspects of meaning exactly are reflected in the co-occurrence of linguistic units, and to what extent. It seems to me that at least four factors, which I will call the "four C's", determine this behavior and must be teased apart in any collocational analysis:

– conceptualization – words and constructions are selected such that their meaning reflects our conceptualization of the content we intend to express, and thus linguistic units with compatible meanings will tend to co-occur;

– cultural context – cultural practices, both linguistic and non-linguistic, shape the selection (and co-selection) of linguistic resources (this is the factor that Firth was originally concerned with);

– convention – through repeated co-occurrence, a co-occurrence relationship becomes fossilized and may continue to exist beyond whatever factor originally motivated it;

– creativity – we use the resources of our language creatively, exploiting and flouting linguistic conventions to suit our specific situational communicative needs.

In this short paper, I will demonstrate the influence of these four factors in the context of collostructional analysis (the collocational analysis of grammatical constructions and the words occurring in them, introduced in [6; 7]. I will reanalyze two sets of data pertaining to the Ditransitive Construction (DC) and the Transfer-Caused-Motion Construction (TCMC) (the so-called *to*-dative).

## 2. Case Study: The Ditransitive and the Dative Constructions

Collostructional analysis is the application of standard collocational analysis to the association between words and the constructions they occur in. There are two main variants. In simple collexeme analysis, the frequency of a word in a given construction is compared to the frequency of that word in the rest of the corpus. A word that is significantly more frequent than expected in the construction is called a *significantly attracted collexeme*, a word that is significantly less frequent than expected is called a *significantly repelled collexeme*. In distinctive collexeme analysis, the frequency of a word in a given construction is compared to the frequency of that word in a specific related construction. A word that is significantly more frequent in one of the constructions is referred to as a *distinctive collexeme* of that construction. Typically, the p-value of Fisher's exact test is used as an association measure.

Tabl. 1 shows the most strongly attracted and repelled verbal collexemes of the DC as well as selected verbs that do not occur in the construction in the corpus, but that are not significantly repelled (cf. [6, p. 229; 8, p. 521] and original data set based on the International Corpus of English, British Component (ICE-GB) [9]; associations calculated based on $n$(DC) = 1035, $n$(Corpus) = 138664).

The DC has often be contrasted and compared syntactically and semantically with the TCMC. Table 2 shows the distinctive collexemes of the DC and the TCMC [7, p. 106].

Collexemes of the Ditransitive Construction in the International Corpus
of English – British Component

| Collexeme | Distinctiveness | Collexeme | Distinctiveness |
|---|---|---|---|
| Attracted | | Repelled | |
| *give* (461:687) | 0 | *think* (0:3335) | 1.04E-11 |
| *tell* (128:660) | 1.6E-127 | *say* (0:3333) | 1.05E-11 |
| *send* (64:289) | 7.26E-68 | *know* (0:2120) | 1.12E-07 |
| *offer* (43:152) | 3.31E-49 | *see* (0:1971) | 3.47E-07 |
| *show* (49:578) | 2.23E-33 | *go* (0:1900) | 5.95E-07 |
| *cost* (20:82) | 1.12E-22 | Non-Significant (Selected) | |
| *teach* (15:76) | 4.32E-16 | *issue* (0:63) | 0.624 |
| *award* (7:9) | 1.36E-11 | *smile* (0:24) | 0.835 |
| *allow* (18:313) | 1.12E-10 | *dream* (0:12) | 0.914 |
| *lend* (7:24) | 2.85E-09 | *whisper* (0:5) | 0.963 |
| *deny* (8:39) | 4.5E-09 | *donate* (0:5) | 0.963 |

Collexemes distinguishing between the Ditransitive
and the Transfer-Caused-Motion Constructions in the International Corpus
of English – British Component

| Ditransitive (N=1,035) | | *To*-dative (N=1,919) | |
|---|---|---|---|
| Collexeme | Distinctiveness | Collexeme | Distinctiveness |
| *give* (461:146) | 1.84E-120 | *bring* (7:82) | 1.47E-09 |
| *tell* (128:2) | 8.77E-58 | *play* (1:37) | 1.46E-06 |
| *show* (49:15) | 8.32E-12 | *take* (12:63) | 0.0002 |
| *offer* (43:15) | 9.95E-10 | *pass* (2:29) | 0.0002 |
| *cost* (20:1) | 9.71E-09 | *make* (3:23) | 0.0068 |
| *teach* (15:1) | 1.49E-06 | *sell* (1:14) | 0.0139 |
| *wish* (9:1) | 0.0005 | *do* (10:40) | 0.0151 |
| *ask* (12:4) | 0.0013 | *supply* (1:12) | 0.0291 |
| *promise* (7:1) | 0.0036 | *read* (1:10) | 0.0599 |
| *deny* (8:3) | 0.0122 | *hand* (5:21) | 0.0636 |

Let us now look at what we might learn from such data with respect
to the four C's introduced above.

## 2.1. Conceptualization

The dimension of meaning that is of most interest in functional and cognitive theories of grammar, and the one that we therefore focused on exclusively in [6; 7], is the conceptual one: We adopted a hypothesis, derived from [10], that verbs encoding the same meaning as a particular construction are particularly likely to occur in that construction, and that an analysis of significant collexemes of a construction would thus provide evidence for its meaning.

In order to test this hypothesis, let us adopt Goldberg's analysis of the DC and the TCMC [10], shown in Fig. 1.
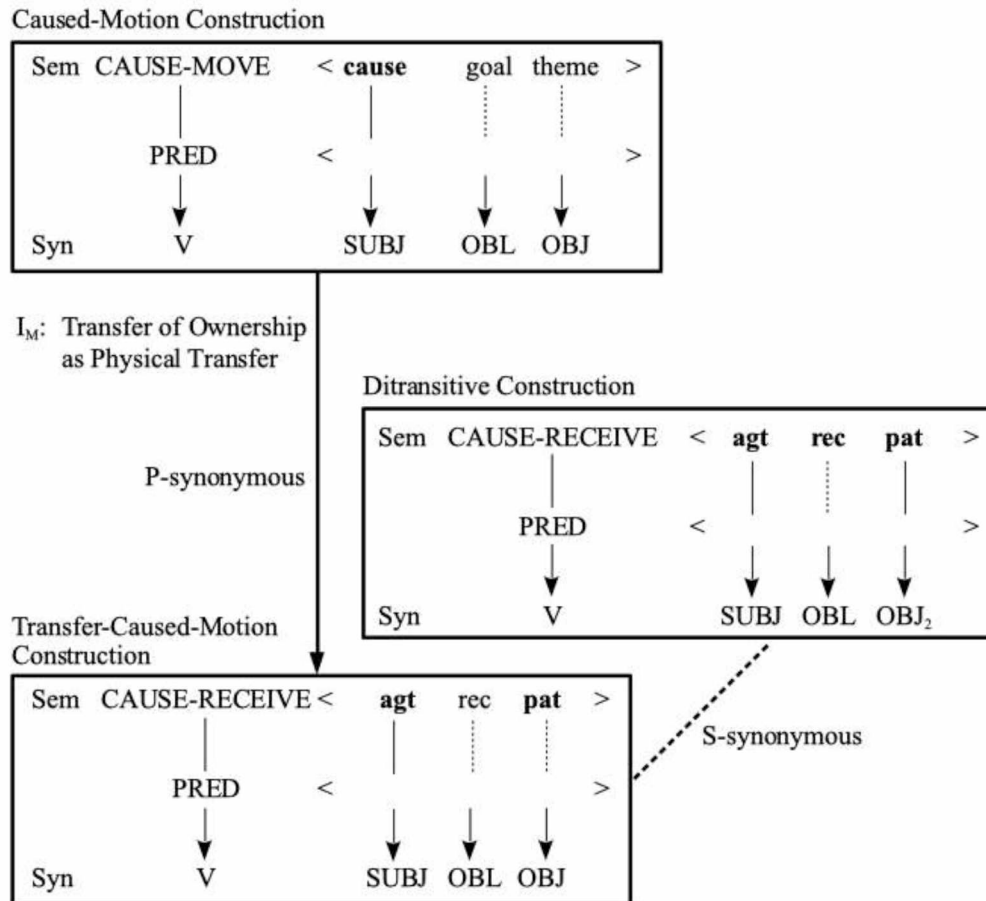


Fig. 1. The ditransitive construction, the transfer-caused-motion construction and the caused-motion construction (redrawn from [10, p. 91])

Roughly, A. Goldberg assumes that the DC inherently encodes a scene where an Agent causes a Recipient to receive a Patient (e.g. *Jack gave Jill an apple*). In this, she assumes the construction to be S(emantically)-synonymous with the TCMC (*Jack gave an apple to Jill*); however, the latter inherits its form and meaning via the metaphor "Transfer of Ownership is Physical Transfer" from the Caused-Motion Construction (CMC), which encodes a scene where an Agent causes a Theme to move to some Goal (e.g. *Jack threw the apple over the fence*). She thus assumes that it also inherits the information structure of the CMC and is P(ragmatically)-synonymous with it, and that this is the main semantic difference

20

between the DC and the TCMC. In [6], we took a slightly broader view and assumed that the inheritance relation also includes further semantic aspects of the CMC, most notably the fact that caused motion typically involves some distance that is traversed, while caused reception does not – this would take into account observation that the DC encodes scenes where Agent and Recipient are in a close spatial and temporal relation, while the TCMC encodes scenes where there is some spatial and/or temporal distance between them [11].

The distinctive collexemes in Tabl. 2 largely bear out this conceptual analysis: The most significantly distinctive collexeme of the DC is *give*, which suggests proximity, while that for the TCMC is *bring*, which entails some distance. Most of the other top collexemes also fit this pattern: *tell*, *show*, *offer*, *teach*, *ask* and *promise* all suggest, in their basic use, scenes where both Agent and Recipient are present and in close proximity, while *take* (like *bring*) suggests that they start out in different locations (*Jack took an apple to Jill's tea party*), and *pass* and *hand* focus on the path that the theme travels (even though Agent and Recipient are in close proximity). This (like the attracted collexemes of the DC in Tabl. 1) confirms both the basic function of the two constructions as encoding transfer of ownership ("caused reception"), and the semantic differences between them due to the relationship of the TCMC to the CMC.

However, a number of verbs do not fit even the basic function – their association to the construction does not seem to be based on the conceptual semantics of the construction. For the DC, the verbs *cost* and *deny* do not fit (they encode, if anything, the opposite of caused reception), for the dative, second-ranked *play* seems an odd exception to the semantics, and the verb *do* also does not encode transfer in any obvious way. Conversely, there are verbs that do fit the semantics but that are significantly repelled by the DC – like *say*, which is semantically very similar to second-most-strongly attracted *tell* in encoding communication as metaphorical transfer. Let us look at these exceptions to see how they relate to the remaining three C's.

### 2.2. Convention

The verbs *cost* (e.g. *Stealing apples cost Jack his freedom*) and *deny* (e.g. *The judge denied Jack bail*) are the most obvious exception to the DC's semantics. Their co-occurrence with this construction can only be explained by taking into account the history of the DC and the TCMC: It has been shown that the DC had a much broader meaning in Old English and that it only starts to specialize towards the encoding of transfer during the Middle English period (cf. [12]), a process that continues throughout the Early Modern English and Modern English period (cf. [13; 14]). The more it specializes, the more verbs not compatible with this new, restricted meaning disappear from the construction – a slow process that continues, for example in the case of *deny*, to this day. This is a clear case of convention: the association between these verbs and the DC was originally semantically motivated – by the time the semantics of the DC began to change, the association was already fully conventional and thus able to resist this change for a long period of time.

21

Such conventions also exist in the opposite direction. As shown in Tabl. 1, the verb *say* is significantly repelled from the ditransitive, even though its meaning is perfectly compatible with that of the construction. There is simply no semantic reason for this verb to be excluded, and foreign language learners from many backgrounds have difficulty learning this (and similar) restrictions, as the following examples from the *EF-Cambridge Open Language Database* illustrate [15] (learner's L1 is shown in parentheses):

(1) a. *How can they say him such words!* (Russian);

    b. *[S]he never say me thank you* (German);

    c. *[S]uddenly, somebody wanted to say me Hello too eagerly* (French).

A different type of conventionalization underlies the strong association between the verb *do* and the TCMC. This association is almost entirely due to a handful of high-frequency fixed expressions: *do justice to NP* alone accounts for almost half of all occurrences, with *do things to NP*, *do homage to NP*, *do damage to NP* and *do credit to NP* accounting for almost all of the remaining ones. Such fixed expressions are linguistic units in their own right, largely disconnected from the more general grammatical structures they instantiate. They frequently develop idiomatic (non-compositional) meanings and are immune to any semantic changes the more general construction may undergo.

## 2.3. Culture

Next, let us turn to the case of *play* – the second most strongly distinctive verbal collexeme of the TCMC. In our original paper, we noted the unexpected occurrence of this verb and accounted for it on semantic grounds: "Second-ranked *play*['s] distinctiveness may seem surprising out of context, but it is due to the large number of uses in the context of sports commentary, such as *Michalichenko plays [the ball] forward to the halfway line* (ICE-GB S2A-014 #145:1), and is thus at least in part due to the characteristics of the corpus we used" [7, p. 107].

In other words, we first checked the corpus for uses of *play* in the TCMC and found mostly examples like those cited – some more examples from the ICE-GB are cited in (2a–c), with (2d) being one of only two examples of a different use:

(2) a. *It's with Vasili Khulkov who plays the ball back to Galiamin* ([9], file S1A-010);

    b. *He's played it back to Svaba the sweeper and he plays it again square across his own eighteen yard line and eventually inevitably it goes back to Michalichenko* ([9], file S1A-001);

    c. *He played a short pass to Nigel Clough, who with his customary aplomb lifted the ball onto the head of Steve Hodge* ([9], file W2C-014);

    d. *God I hope Laura doesn't play this tape to anybody* ([9], file S1A-042).

We then pointed out that this sense of *play* fits our proposed semantics of the TCMC – it encodes the caused reception of a ball over a certain distance. However, while correct, this explanation fails to capture the full extent of the motivation for the strong association between the verb and the construction, which is grounded in cultural context in two different ways.

Note that the relevant sense of *play* is recognized in all major dictionaries along the lines of *to strike/hit/kick a ball in a game or sport*. Interestingly, however, its use in the TCMC is explicitly mentioned only in the Cambridge Dictionary [16]. The Lexico Oxford English Dictionary [17] only provides an example under "more examples"; the default example is a simple transitive. Finally, Collins Online English Dictionary [18] does not mention or illustrate this use at all.

One reason could be that this particular use, as the examples cited in (2) show, is highly restricted, occurring only in live (or presented-as-live) sports commentary, specifically, commentary of (soccer) football. Live sports commentary, of course, is a highly culture-specific practice: it was invented for the purpose of broadcasting sports events over the radio, and its specific textual features evolved to make the commentary as vivid as possible. One way in which this is achieved in the case of football is by structuring the narrative in such a way as to always follow the ball. The TCMC is uniquely suited to this narrative style: it contains the Agent (i.e. the player who currently has the ball) in the clause-initial subject position, and the Theme (i.e., the ball) in the immediate post-verbal object position. The Recipient (i.e. the player with whom the ball ends up) occurs in the final position in the clause. Thus, the TCMC takes the listener conceptually to the current player, then lets them conceptualize the path that the ball takes, until they arrive conceptually at the endpoint of this path – the player who receives the ball.

The association between *play* and the TCMC is thus due to their semantic compatibility *in a particular, culturally constructed communicative situation* only. Where this culturally constructed situation does not exist, this specific communicative practice will not evolve and thus the association between verb and construction will not emerge. We can test this by looking at American English: in American culture, soccer football plays a marginal role at best, and thus, *play* should not be a collexeme of the TCMC. And indeed, the *Corpus of Contemporary American English* (COCA) [19] contains only a handful of examples of this combination. This shows that, first, the association between *play* and the TCMC is dependent on a particular cultural practice, and, second, that this practice in turn is dependent on the properties of the larger surrounding culture.

2.4. Creativity

When used appropriately, collostructional analysis (and collocation analysis in general) can be used to identify not only significantly positively associated items (the traditional notion of collocation), but also negatively associated items – items that occur with each other significantly *less* frequently than expected. In addition, it can tell us for which items there are no significant associations at all. Such "non-collexemes", too, are part of the collostructional profile of a construction. As shown in Table 1 above, they include items that cannot occur in a construction at all or only under exceptional semantic circumstances (such as *issue, whisper* and *donate* in the DC, cf. [8]), but they also contain items like *smile* or *dream*, that

have been observed to occur in the construction in question in creative uses. Such uses have not been studied extensively in the collostructional literature precisely because they are too rare to result in significant associations; however, it seems to me that they are needed for a complete picture.

One such case is the verb *smile*, whose occurrence in the ditransitive construction is discussed in Goldberg [9] based on the example in (3).

(3) *A business class ticket, of course, but her face was known and she'd smiled herself an upgrade.* (Douglas Adams, *Mostly Harmless*, 1992, cited in [10]).

This is a highly unusual example – neither the 100-million-word British National Corpus (BNC) [20] nor the 400-million-word COCA [19] contain any ditransitive uses of *smile*. They do contain simple transitive uses of the type in (4a–c), and even a few cases of the TCMC (as in 4d):

(4) a. *Sachs smiled his irresistible smile* ([20], file FNT);

   b. *"Hi!" she said, smiling a greeting which she hoped concealed her disappointment* ([20], file BMW);

   c. *Maggie smiled her gratitude* ([20], file AN7);

   d. *[T]here was Philip, smiling a welcome to her* ([20], file CDY).

Example (4a) is a cognate object construction, which I will ignore here, but (4b–d) are constructions where the direct object refers to the (intended) meaning of the smile – conceptualizing it as an entity produced by the act of smiling. This is a conceptualization that is compatible with the notion of transfer – as seen above, many verbs of communication are used ditransitively and (4d) even has a transfer semantics.

Using *smile* in the ditransitive in this way would thus be a minor extension of existing conventionalized uses, even though it is not itself a conventionalized use. And, indeed, an extensive web-search turns up a few dozen such uses, all of them in the literary genre. Some typical examples are shown in (5) (all examples were found using the Google search engine on January 9, 2020, most of them in books included in the Google Books archive):

(5) a. *She lifted her sweet gray eyes, and smiled him a welcome* (George MacDonald, The Marquis of Lossie, 1877);

   b. *He declined each [offer] without explanation and smiled them a goodbye* (Stephen Loveless, Collected Moments, 1998);

   c. *She smiled me a "Good morning,"* said that Dorothy would not be *down until later* (Edgar Lee Masters, Children of the Market Place, 1922);

   d. *He had asked, and then a day or two later she had smiled him an apology and always waved after that* (David Dane Wallace, Night's End, 2016);

   e. *The baron went back to Mrs. Mowbray Thomas, and the popular poet passing, the baroness touched his arm with her fan, and smiled him an arch invitation* (Hannah Lynch, Daughters of Men, 1892);

   f. *The way Miss Peaches tilted the rear view mirror and smiled me a promise that Everything's going to be alright* (Kid Author, The Beauty Fools, 2016).

Words like *welcome, greeting,* and *good-bye* are most frequent, but other types of speech acts are also found – the suggestion usually being that these are recognizable in the smile itself and need not be verbalized, although occasionally direct speech is used (as in (4c)).

These examples are not of the type that Goldberg discusses, however. In (5), *smile* is used as a communication verb – a paraphrase would be "communicate by smiling"; in contrast, in (3) it is used as an actual transfer verb – a paraphrase would be "get by smiling". For this use, no cases with regular pronominal objects are found even in an extensive web search. However, a few cases can be found with reflexive pronouns in the direct object position. In (6), I list all ditransitive uses of *smile* of this kind that I was able to find in an extensive web search (which, again, was conducted using the Google search engine on January 9, 2020):

(6) a. *Head majorette Susan Lovelady, twirled and smiled herself an invitation from the administration at Minnie Wade Twirling School, Sunnyside, Fla., to instruct next year* (Spotlight, 1965);

b. *The staff could have cried themselves a river. Instead, they smiled themselves a sunny day…* (Betty Lou Leaver, Bouquet of Bitterroots, 2001);

c. *They chose to walk away from darkness and smile themselves a sunny day* (Betty Lou Leaver, Bouquet of Bitterroots, 2001);

d. *Now while we [...] are capable of conning the front-desk staff at the Minneapolis Best Western, trying to smile yourself a room in Rudeville, France at six in the morning is quite another matter* (Christopher Thomas Schmidt, Traveling Our Way, 2004);

e. *As I negotiate the stairs I smile myself a little "high-five" for belaying a trip back up later, when I'll need a pair to do the crossword* (Kathleen Cerveny, Not Exactly Staying in the Moment, 2018);

f. *Smiled ourselves a VIP spot* [emoji of person shrugging] (tommyteapot, Instagram, 2018).

Of these, only (6a, d and f) are of the type cited by Goldberg: (6e) is of the type shown in (5) above, and (6b, c) – both from the same author – have yet another meaning. The opposition to *cry NP a river* in (6b) suggests that *smile NP a sunny day* is meant as an idiom with a meaning antonymic to the former, perhaps meaning something like "smile in order to get into a positive mood"; since it is only found twice, with both instances from the same book by the same author, one might be tempted to believe in a creative invention, but there is a song by the British singer Chris Rea from around the same time as the book, which includes the following line:

(7) *Mama looked at me, / She smiled me a sunny day* (Chris Rea, Slow Dance, 2002).

This is either an independent invention of exactly the same form, or we are dealing with an idiom that just happens to be very scarcely documented.

Either way, this leaves just four documented examples in the entirety of the English language as documented on the World-Wide Web where *smile* means "get by smiling". It is highly unlikely that any of these are connected – each of them is most likely an independent creative invention. Unlike the uses in (5), these are not extensions of more conventionalized uses of *smile*, but the result of flouting the co-occurrence patterns of both the verb *smile* and the DC, combining the two in a completely novel way. Such uses are invaluable to the study of meaning – it is only when we have excluded collocation-based meanings that we can determine the semantic contribution of individual elements. In this case, the literal transfer meaning can only be attributed to the DC itself – and, of course, A. Goldberg [10] uses the example precisely in order to show this. Conversely, this means that as long as we cannot – or do not – exclude existing collocational relations between linguistic items, we can never be sure that we are *not* dealing with Firth's meaning by collocation and thus we need collocation analysis even in the study of non-collocations.

**3. Conclusion**

The case study presented here has attempted to show that collocates (or, in this particular case, collexemes) are always related to meaning in some way, but that, beyond this general fact, they may have very different motivations. Specifically, I have attempted to argue that they can be motivated by conceptual semantics, by convention, by cultural context, or by a speaker's creativity. As the case study has shown, all four dimensions can be uncovered by careful consideration of the data. However, the fact that we are always confronted with (at least) these four motivations means that we need analytic strategies to tease them apart.

In [6; 7], we used a kind of majority vote to determine which collexemes tell us something about the conceptual meaning of the constructions under investigation: we assumed that conceptual meaning is the main influencing factor and thus attempted to find a semantic characterization of the construction that allowed us to account for the majority of the collexemes. This is potentially a circular argument, and we therefore approached the data deductively: we hypothesized what the meaning(s) of the DC and the TCMC should be based on the existing literature before considering the data.

However, we do not always have the kind of reliable, fairly coherent research literature that exists for the DC and the TCMC; thus, we need other strategies for teasing apart the conceptual, the conventional and the cultural (the creative is easier to isolate, as it concerns non-collocates only). Such strategies do not, at present, seem to exist, and finding them requires the collaboration of researchers in "core" linguistics (in this case, construction grammarians, lexical semanticists, etc.) with, on the one hand, historical linguists, whose analyses may help identify the conventional collexemes (and collocates), and, on the other hand, variationist linguists and cultural linguists, whose analyses may help to identify culture-specific, and hence obviously culturally determined collexemes and collocates.

# REFERENCES

1. *Firth, J. R.* Modes of Meaning / J. R. Firth. – Indianapolis : Bobbs-Merrill, 1951. – 149 p.

2. *Chomsky, N.* Syntactic Structures / N. Chomsky. – The Hague : Mouton, 1957. – 117 p.

3. *Sinclair, J.* Corpus, concordance, collocation / J. Sinclair. – Oxford : Oxford Univ. Press, 1991. – 179 p.

4. *Renouf, A.* Collocational frameworks in English / A. Renouf, J. Sinclair // English corpus linguistics : studies in honour of Jan Svartvik / ed. by K. Aijmer, B. Altenberg. – London : Longman, 1991. – P. 128–143.

5. *Hunston, S.* Pattern Grammar : A Corpus-Driven Approach to the Lexical Grammar of English / S. Hunston, G. Francis. – Amsterdam ; Philadelphia: John Benjamins, 2000. – 289 p.

6. *Stefanowitsch, A.* Collostructions : Investigating the interaction of words and constructions / A. Stefanowitsch, S. Th. Gries // International Journal of Corpus Linguistics. – 2003. – № 8 (2). – P. 209–243.

7. *Gries, S. Th.* Extending collostructional analysis : A corpus-based perspective on 'alternations'/ S. Th. Gries, A. Stefanowitsch // International Journal of Corpus Linguistics. – 2004. – № 9 (1). – P. 97–129.

8. *Stefanowitsch, A.* Negative entrenchment : A usage-based approach to negative evidence / A. Stefanowitsch // Cognitive Linguistics. – 2008. – № 19 (3). –P. 513–531.

9. International Corpus of English / International Corpus of English, British Component. – 1998. – Distributed by the Survey of English Usage, University College London. – URL: https://www.ucl.ac.uk/english-usage/projects/ice-gb.

10. *Goldberg, A. E.* Constructions : A Construction Grammar Approach to Argument Structure / A. E. Goldberg. – Chicago : The Univ. of Chicago Press, 1995. – 265 p.

11. *Thompson, S. A.* Iconicity and 'indirect objects' in English / S. A. Thompson, Y. Koide // Journal of Pragmatics. – 1987. – № 11 (3). – P. 399–406.

12. *Zehentner, E.* Ditransitives in Middle English : On semantic specialisation and the rise of the dative alternation / E. Zehentner // English Language and Linguistics. – 2018. – № 22 (1). – P. 149–175.

13. *Colleman, T.* Accounting for ditransitives with envy and forgive / T. Colleman, B. De Clerck // Functions of Language. – 2008. – № 15. – P. 187–215.

14. *Colleman, T.* Constructional semantics on the move : On semantic specialization in the English double object construction / T. Colleman, B. De Clerck // Cognitive Linguistics. – 2011. – № 22 (1). – P. 183–209.

15. EF-Cambridge Open Language Database / EF-Cambridge Open Language Database. – 2020. – Provided by the Univ. of Cambridge. – URL: corpus.mml.cam.ac.uk

16. Cambridge Dictionary. – Cambridge Univ. Press, 2020. – URL: dictionary. cambridge.org.

17. Lexico Oxford English Dictionary. – Dictionary.com; Oxford University Press, 2020. – URL: www.lexico.com.

18. Collins Online English Dictionary. – Harper Collins Publishers Limited, 2020. – URL: www.collinsdictionary.com.

19. Corpus of Contemporary American English / M. Davies // The Corpus of Contemporary American English. – 2008. – URL: www.english-corpora.org/coca.

20. British National Corpus / The British National Corpus, version 3 (BNC XML Edition). – Distributed by Bodleian Libraries, University of Oxford, on behalf of the BNC Consortium, 2007. – URL: www.natcorp.ox.ac.uk.

Anatol Stefanowitsch

Dr. Phil., Prof., Institut für Englische Philologie, Interdisziplinäres
Zentrum Europäische Sprachen, Freie Universität Berlin, Germany