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METAPHOCONSTRUCTIONS: COMBINING METAPHORS AND CONSTRUCTION

Abstract: This article demonstrates a corpus-based approach to the investigation of metaphorical constructions by combining key insights from Conceptual Theory of Metaphor (Kövecses 2002), Blending (Fauconnier and Turner 2002) and Construction Grammar (Goldberg 2006, Croft 2001). This approach rests on the retrieval of lexical units from the target domain and the identification of the metaphorical expressions associated with them. The author proposes to encode the conventionalized uses of symbolic units in terms of metaphorical constructions: that is, *metaphoconstructions*. It is argued that the meanings of individual metaphoconstructions not only reside in a set of correspondences between the two domains, but also depend on conceptual integration in a given situation of use. A corpus-based method presented in this article differs from the introspective method in that it allows us to extract metaphorical constructions more exhaustively and to quantify their frequency.

Keywords: conceptual metaphor, construction, domain, blending, corpus.

Introduction

Over the last three decades, research on metaphor has been dominated by the investigation of the relationship between language and thought, from the perspective of the research program now known as *cognitive linguistics*. In particular, cognitive metaphor theorists from Lakoff and Johnson (1980) onwards have argued that the common occurrence of metaphorical linguistic expressions is evidence of the existence of metaphorical thought, and especially of conceptual metaphors: sets of systematic correspondences, or mappings, between the two domains in conceptual structure.

Consequently, the cognitive study of metaphor has attempted to reveal general mappings rather than to exhaustively describe the specific linguistic expressions instantiating these mappings. Cognitive metaphor research rests mainly upon the traditional method of eclectically collecting citations or gathering data from introspection. The manual extraction of metaphors causes a number of problems, not the least of which is that it seriously limits the size of the material to be investigated, and it relies on researcher's intuition of what a metaphor is. According to Stefanowitsch (2006:64), another problem arises with the systematic characterization of a specific mapping: first, it is impossible to find out whether we have exhaustively extracted the relevant metaphors; second, we cannot quantify the results in order to establish the importance of a particular metaphor in a given language.

In recent years, the increasing availability of electronic corpora has opened up considerable opportunities for investigating metaphorical expressions in naturally-occurring discourse, as shown by a number of studies (e.g. Cameron and Deignan 2003; Deignan 2000; Semino 2002, 2006; Stefanowitsch 2006). Some researchers (e.g. Cameron 2003; Low 2003; Steen 1999) have begun to place strong emphasis on authentic data and the empirical verification of some earlier claims on particular conceptual metaphors.

Several strategies have been also proposed to overcome methodological shortcomings. Electronic corpora have been employed to investigate linguistic metaphors from a variety of perspectives. Some researchers have used corpora to search for individual lexical items from the source domain (cf. Deignan 1999, 2006; Hanks 2004, 2006) or for whole sets of such items (cf. Partington 1997, 2003, 2006; Koller 2006). Others have focused on investigating target domain vocabulary (Stefanowitsch 2004, 2006; Koivisto-Alanko and Tissari 2006). This paper presents one such strategy in detail. The basic idea behind this approach appears to be relatively straightforward: we select and search for a lexical item referring to the target domain under investigation and extract a sample of its occurrences in the corpus. In a second step, we then identify those cases where the search word is embedded in metaphorical expressions and thus, the metaphorical mappings occurring in the target domain. This general strategy has been adopted by some researchers in previous work (cf. Koivisto-Alanko 2000; Stefanowitsch 2004, 2006) but it has, to my knowledge, never been applied in combination with the tenets of Construction Grammar and Blending Theory to investigate the meaning and form of individual metaphorical constructions. In addition, no single study exists which has attempted to postulate the existence of so-called *metaphoconstructions* in a constructional cline.

The first aim of this article is therefore to establish more clearly and explicitly the nature of metaphoconstructions and to specify their properties. To attain this purpose, metaphorical expressions associated with the target domain of soccer are investigated, specifically, the verb *to play* and its collocates, e.g. *an encounter*, *a friendly*, *a fixture*, *a central defender*, *as a striker*, *catch-up* and *host to*. The

second aim is to demonstrate how the frequency of occurrence of a given lexical item and its collocates can be used to identify words that are very strongly attracted to a metaphorical construction and thus significantly associated with a given metaphorical mapping. To this end, differences in the metaphorical behavior of near-synonymous constructions are investigated, showing that the reliance on the corpus data is a methodological advantage that enables us to uncover subtle distributional differences between two semantically or functionally near-equivalent constructions from the same target domain.

Theoretical background

The analysis is grounded in theoretical frameworks provided by the Conceptual Theory of Metaphor, Blending and Construction Grammar. The Conceptual Theory of Metaphor formulated by George Lakoff and Mark Johnson (1980), but also associated with the work of Kövecses (2002, 2006), draws a distinction between *conceptual metaphors* and *metaphorical expressions*. Conceptual metaphors are general mental mappings or correspondences from a (typically concrete) source domain to a (typically abstract) target domain, while metaphorical linguistic expressions are lexical units or other linguistic expressions instantiating these mappings. A conceptual domain or frame (Fillmore 1982) in turn is our conceptual representation, or knowledge, of any coherent organization of experience. For example, the metaphorical expression *to play a friendly fixture* can be regarded as instantiating the general metaphorical concept FOOTBALL MATCH IS MEETING. Another examples of conceptual metaphor include when we talk and think about soccer in terms of war, about a league in terms of a race, and many others. A practical shorthand way of presenting this view of metaphor is the following: CONCEPTUAL TARGET DOMAIN IS CONCEPTUAL SOURCE DOMAIN, e.g. the SOCCER IS WAR conceptual metaphor. This way of conceptual description can be particularly useful in discussion of metaphorical uses of the verb *to play* and its collocates.

Conceptual Metaphor Theory, however, does not offer a detailed explanation for the usage of metaphorical constructions in all cases described in this article, since it does not clarify grammatical characteristics of some metaphorical constructions. Thus, another important notion from the field of Cognitive Semantics will be introduced. This is a concept of *blending* (Fauconnier and Turner 2002). To simplify a great deal, blending theory is based on the notion of *mental spaces*. In contrast to semantic frames or domains, mental spaces are constructed online, in the moment of speaking or thinking. Furthermore, they are used to describe an area in the mind within which we create mental representations of the external world. Blending occurs when several mental spaces are constructed in one utterance or thought, and then these are integrated to create a new blended space.

A straightforward example of the significance of domains, conceptual metaphors and blending to the semantic analysis of the verb *to play* and its collocates can be illustrated with a sentence related to different semantic frames that will be examined in this article. At first glance, the words *play* and *defender* in the sentence *I played a defender* seem to evoke only one domain: the MEMBER OF the SOCCER TEAM domain. However, on closer examination it appears that the metaphorical expression *to play a defender* is a derivative of two conceptual metaphors: A MATCH IS A SPECTACLE and FOOTBALLERS ARE PARTICIPANTS OF PHYSICAL CONFLICT. More specifically, the verb *play* is a realization of the metaphorical mapping: TO PLAY A POSITION IS TO PLAY A ROLE. The noun *defender* in turn is a manifestation of the metaphorical mapping: A FOOTBALLER IS A PARTICIPANT OF PHYSICAL CONFLICT.

Construction Grammar, associated with the works of Goldberg (1995, 2006) and Croft (2001), rests on two assumptions: first, that lexical units and grammatical structures are represented in the mind as a whole in the form of constructions, and second, that sufficient frequency of grammatical units is a necessary condition for their entrenchment in a speaker/hearer's linguistic system, and thus for their construction status. Constructions are symbolic units (Langacker 1987), a combination of form and meaning, where both form and meaning can vary in complexity and schematicity. The form includes the following broad types (Croft 2001:17): a) *atomic* (that is, morphologically simple words that cannot be further divided into meaningful parts) and *specific*, i.e. word/lexicon; b) *atomic and schematic*, i.e. grammatical categories – for example, word classes [noun, verb, etc.] or grammatical relations [subject, object, etc.]; c) *complex but bound*, i.e. morphology (constructions whose parts are morphologically bound), e.g. [Noun-s]; d) *complex and (mostly) specific*, i.e. idioms [*pull*-TNS NP-'s leg]; e) *complex and (mostly) schematic*, i.e. syntactic rules [SUBJ + VERB-TNS + OBJ_L + *to/for* NP + *into* + NP] and associated rules of their semantic interpretation [Agent cause Theme to move *to/for* Recipient into Location]. The latter covers semantic, pragmatic and discourse-functional properties, i.e. semantic frames (domains) and the context in which constructions are found.

Following the principles of Construction Grammar outlined above, this article proposes to encode the conventionalized metaphorical uses of the verb *to play* and its collocates in terms of metaphorical constructions that derive their meaning from the conceptual mappings between the source domain and the target domain.

Data and method

The major source of data used in this article comes from specialized corpora collected in three languages, covering the years between 2008 and 2012. Corpora include different types of texts derived from internet websites: official news,

comments, biographies, written interviews with people linked with the sport, match reports and reviews, etc. The data were retrieved by means of a software program, MonoConc Pro. Much of the analysis was based on data from approximately 650 thousand word corpus of the English soccer news. The corpus yielded 2471 tokens of the verb *play*, from which some examples were selected and annotated with frame elements (that is, typical participants, props, and roles that can be found in a particular situation) and grammatical categories.

The corpus-based method employed to obtain the data from the corpus involves selecting and searching for the verb *to play* referring directly to the target domain of soccer and extracting (a sample of) its occurrences in the corpus. In this sample, we then identify all metaphoconstructions that the verb *to play* is a part of and classify them into coherent groups representing general and specific mappings.

The method, referred to as distinctive-collexeme analysis (Gries and Stefanowitsch 2004), is adopted in this article to investigate differences between two semantically or functionally near-equivalent constructions, i.e. to identify those words that best distinguish between semantically or functionally near-equivalent constructions. It resembles Church et al.'s (1991) distinctive collocate analysis, which employs a variant of the t-test as a measure of dissimilarity of semantically similar words on the basis of their lexical collocates (e.g., Church et al. indicate how their t-test can identify collocates that differentiate between the adjectives *strong* and *powerful*). However, it differs from Church et al. in that it examines near-synonymous (or functionally near-equivalent) constructions rather than words, and that it looks at lexemes occurring in given slots in these constructions rather than at all words within a given span. In addition, the method is different from the one mentioned above, in that it compares frequencies of words in a construction not to their frequency in the corpus as a whole, but to their frequencies in the corresponding slot in a semantically near-equivalent construction. To be more specific, in order to calculate the association strength of a given word (in this case, its distinctiveness), the following four frequencies are required: the frequency of the word in construction A, the frequency of the same word in construction B, and the frequencies of construction A and construction B with words other than the collexeme in question. These can then be entered in a two-by-two table and examined by means of the Fisher exact test (Gries and Stefanowitsch 2004:104). The p-value provided by this test is taken as an indicator of association strength, i.e., a word's strength of attraction/repulsion to a construction: the smaller the p-value, the stronger the association.

Definition of metaphoconstruction

A primary motivation for devising a definition of metaphoconstruction is the observed necessity of an examination of methods and means of identifying metaphorical constructions in corpora and a subsequent analysis of their properties.

The following parameters can be established for the identification and extraction of metaphoconstructions in computer corpora:

- a. the nature of the constituents involved in a metaphoconstruction: no restrictions imposed on the types of the parts that form a metaphoconstruction as long as it consists of lexical items from both the source domain and the target domain and its forms are paired with some meaning/function;
- b. the number of elements that constitute a metaphoconstruction: metaphorical constructions can be composed of an unlimited number of elements as long as those constituents are considered to make up one symbolic unit;
- c. the frequency of occurrence: metaphorical linguistic expressions that are more frequently encountered become more entrenched in the linguistic system (that is, established as a cognitive pattern). This criterion is associated with Langacker's notion of entrenchment;
- d. the permissible distance between the elements involved in a metaphoconstruction: the constituents of the metaphoconstruction can be adjacent to each other or separated by intervening elements;
- e. the degree of lexical and syntactic flexibility of the elements involved: Langacker's view of symbolic unit (Langacker 1987) imposes no restrictions on the flexibility of the elements as long as those parts are concrete instances of a particular schema that instantiates them: for example, if three expressions are specific instances of the English caused-notion construction [V OBJ OBL], it is unimportant that these three instances may include different verbs in different tenses with different direct objects and oblique ones;
- f. semantics: by definition, the metaphoconstruction is a symbolic unit or construction that functions as a one semantic unit, i.e. has a sense just like a single morpheme or lexical item. Its meaning is not fully predictable from the components, as it depends on a set of conceptual correspondences between elements of two domains and conceptual integration in a given situation of use – namely, the way in which the meaning is constructed dynamically while thinking and speaking in a particular socio-cultural context.

According to the criteria formulated above, a metaphoconstruction can be defined as follows:

A metaphoconstruction is a pairing of form and meaning/function which is subjected to no restrictions on number, types, distance, and flexibility of constituents as long as it functions as one symbolic unit and comprises lexical items from the source domain and the target domain.

Findings and discussion

Metaphorical expressions associated with the verb *to play* and its collocates appear to be of several different kinds. As can be easily seen, in the examples presented in (1), they contain lexical items from both the source domain (*friendly, leg, catch-up, fixture, exhibitions, striker, part, host, clash, meeting*) and the target domain (*play*). The fact that some metaphorical expressions consist of both source and target domain lexical items has sometimes been recognized as a means of identifying metaphors in the corpus, but little or no attention has been devoted to the fact that such expressions constitute a specific type of constructions, a type that I will refer to as a *metaphoconstruction*. In an attempt to identify properties of this construction, let us examine some examples found in the corpus:

(1)

- a. [We]_{Subject, Team} *played* [*one friendly*]_{Direct Object, Match*}
- b. [...] when [they]_{Subject, Players} have *played* [*the second leg*]_{Direct Object, Competition Stage} [*away from home*]_{Adjunct, Pitch Location*}
- c. [Owen and Berbatov]_{Subject, Players} *play* [*catch-up*]_{Direct Object, Match} with Rooney [*against Arsenal*]_{Opposing Team*}
- d. Given that [the Ibrox side]_{Subject, Team} have *played* [*one fixture*]_{Direct Object, Match} more [...].
- e. Although [he]_{Subject, Player} *played* [*in all of the team's last few exhibitions*]_{Event Complement, Match* [...]}.
- f. [I]_{Subject, Player} used to *play* [*striker*]_{Direct Object, Player's Position} [*for my football club*]_{Prepositional Complement, Team*}
- g. [I]_{Subject, Player} can *play* [*as a striker*]_{Positional Complement, Player's Position*}
- h. [...], [he]_{Subject, Player} again *played* [*his part*]_{Direct Object, Player's Role} [*in a battling performance*]_{Event Complement, Match, Competition Stage} [*in the UEFA Cup*].
- i. [The Sky Blues]_{Subject, Home Team} *play host to* [*the North Queensland Fury*]_{Direct Object, Away Team*}
- j. [Sydney's season-ending *clash*]_{NP, Match} [*with the Jets*]_{Prepositional Complement, Opposing Team} will be *played* [*at the SFS*]_{Adjunct, Spatial Field Location} [*at 5:00 p.m next Sunday*]_{Adjunct, Temporal Location*}
- k. [Patrick Nyarko]_{Subject, Player?} who *played* [*well*]_{Adjunct, Manner} [*against Sounders FC*]_{Complement, Opposing team} [*in the teams' first meeting*]_{Event Complement, Match} [*in suburban Chicago*]_{Adjunct, Field Location} [*in May*]_{Adjunct, Temporal Location? [...]}.

In the sentences above, the examples of metaphorical expressions in italics do not refer to the soccer domain that they would refer to in metonymic uses. Rather, we can see that a large part of the way we speak about soccer in English

derives from the way we speak about physical conflicts, a race, social meetings and events, actor's performance, etc. In light of these examples, it appears that speakers of English make extensive use of the afore-mentioned domains to think about the concept of soccer. More specifically, particular form-concept pairings speakers use to talk about soccer are based on a deeper connection between some aspects of two domains. The specific form-concept pair of the soccer domain is comprehended in terms of the form-concept pair that belongs to one of the domains: war, physical conflict, a race, social meetings and events, actor's performance, etc. Furthermore, this connection is systematic in the sense that we can observe systematic correspondences between the soccer domain lexical items and those belonging to the source domains mentioned above. Thus, below, we find a number of metaphorical correspondences for each of the examples of linguistic expressions in italics above. These metaphorical expressions do not merely instantiate general mappings between two domains. In addition, they establish specific relationships between the target domain lexical item *play* and the source domain items such as a *friendly*, a *leg*, *catch-up*, etc. As the example (1h) illustrates, there may be more than two domains (and thus, more than one metaphor) involved in a metaphoconstruction: PLAYER'S PERFORMANCE IS ACTOR'S PERFORMANCE and A MATCH IS A BATTLE. Both schematic and specific relationships are stated in small capitals:

(2)

- a. General mapping: A SOCCER MATCH IS A MEETING; Specific relationship: TO PLAY A SOCCER MATCH IS TO PARTICIPATE IN A SOCIAL MEETING
- b. General mapping: PART OF COMPETITION IS PART OF A RACE; Specific relationship: TO PLAY A MATCH IS TO PARTICIPATE IN A LEG
- c. General mapping: COMPETITION IS A RACE; Specific relationship: AN ACT OF TRYING TO EQUAL WITH A PLAYER IN A NUMBER OF GOALS SCORED IN A PARTICULAR COMPETITION IS AN ACT OF TRYING TO REACH A PERSON WHO IS AHEAD IN A RACE
- d. General mapping: A SOCCER MATCH IS A MEETING; Specific relationship: TO PLAY A SOCCER MATCH IS TO PARTICIPATE IN A MEETING FIXED ON A PARTICULAR DATE AND AT A PARTICULAR PLACE
- e. General mapping: A SPORTING EVENT IS A CULTURAL EVENT; Specific relationship: TO PLAY A MATCH IS TO ATTEND AN EXHIBITION
- f. General mapping: PLAYER'S PERFORMANCE IS ACTOR'S PERFORMANCE; Specific relationship: TO PLAY A POSITION IS TO PLAY A ROLE

- g. General mapping: PLAYER'S PERFORMANCE IS ACTOR'S PERFORMANCE; Specific relationship: TO PLAY A POSITION IS TO PLAY A ROLE
- h. General mapping: PLAYER'S PERFORMANCE IS ACTOR'S PERFORMANCE; Specific relationships: TO PLAY A POSITION IS TO PLAY A ROLE, TO PLAY A MATCH IS TO FIGHT A BATTLE
- i. General mapping: A HOME MATCH IS A VISIT; Specific relationships: A HOME TEAM IS A HOST; AN AWAY TEAM IS A GUEST /VISITOR; TO PLAY HOME WITH AN AWAY TEAM IS TO PLAY HOST TO A GUEST
- j. General mapping: A MATCH IS A PHYSICAL FIGHT; Specific relationship: TO PLAY A MATCH IS TO GET INTO A CLASH
- k. General mapping: A SOCCER MATCH IS A MEETING; Specific relationship: TO PLAY A SOCCER MATCH IS TO PARTICIPATE IN A SOCIAL MEETING

As shown in (2), particular elements of the SOCCER domain, or frame, correspond to particular elements of the MEETING frame, the RACE frame, the PHYSICAL FIGHT frame, the CULTURAL EVENT frame, the THEATRICAL PERFORMANCE frame and the VISIT frame. Such correspondences between two frames give rise to metaphoconstructions mentioned earlier in italics. These metaphoconstructions thus are derivative of two conceptual domains being connected. The expression *play host to* is an example of the HOME MATCH IS A VISIT metaphorical mapping, while *clash* comes from A MATCH IS A PHYSICAL FIGHT, and so on. From this standpoint, metaphoconstructions are symbolic units (pairings of form and meaning) that exist in language only because they exist in the body/brain and thought. They are expressions of metaphorical concepts in the brain's conceptual system. So, on the one hand, metaphoconstructions make conceptual metaphors manifest, and on the other, we can use these metaphoconstructions to find metaphors in thought by assuming links between two frames.

Given the observations above, we can identify a number of properties and components that characterize a particular *metaphoconstruction* and influence its meaning. These components include the following: a specific concept (e.g. *play as a striker*), a specific form (e.g. phonological form: *play as a striker*, syntactic form/relation: VERB + PP), a specific conceptual mapping (e.g. TO PLAY A POSITION IS TO PLAY A ROLE), a specific meaning (its specific use in a particular situation).

Meaning structure of metaphoconstructions

The reason for positing separate specific constructions for some linguistic expressions is motivated by the fact that some aspect of the construction, in this case its meaning, is not strictly predictable from the components parts, but it depends on

conceptual mapping between two domains and conceptual integration in a given situation of use. To illustrate how each of the afore-mentioned components of metaphoconstruction contributes to its meaning construction, let us examine a fixed expression *to play catch-up*. The example in (1c) above shows that the verb *to play* occurs with the lexical item *catch-up*, evoking the metaphorical mapping: TO TRY TO EQUAL WITH A PARTICULAR PLAYER IN A NUMBER OF GOALS SCORED IN A MATCH IS TO TRY TO CATCH UP A PERSON WHO IS AHEAD IN A RACE. The sentence assumes the perspective of players who compete with another player in order to equal in a number of goals scored. In this case, the linguistic expression *catch-up* comes from the domain of race, whereas the corresponding conceptual metaphor that it makes manifest is PARTICIPATION IN A MATCH IS PARTICIPATION IN A RACE.

However, this conceptual metaphor does not completely explain both the meaning and the grammatical form of the metaphorical construction *to play catch-up*. The blending theory may be able to provide a more satisfactory explanation for its meaning-form construction than the model mentioned so far. In the theory of conceptual integration, we reject that the source domain structures solely the target domain and, instead, we view that the inherent structure of the target domain plays a much more prominent role in motivating metaphorical linguistic expressions such as *to play catch-up* than it is suggested by conceptual metaphor theory. In the theory of blending, both source and target domain contribute to the blended space, which inherits partial structure from each of the input spaces, but also yields new emergent meaning structures.

The blending theory and conceptual metaphor accounts for the construction of the example (1c) as follows. First, the blend inherits some structure from each of the inputs (the target and the source domain). From the target input space, structured by the domain of PARTICIPATION IN A MATCH, it inherits such elements as the identity of Owen and Berbatov as football players, the purpose of players' participation (try to equal with another player in a number of goals scored in the match against Arsenal), and perhaps the form of *play*. From the source input space, which draws on the domain of PARTICIPATION IN A RACE, it inherits the phonological form *catch up* and the purpose of participation in a race (try to catch up) which is identified with the purpose of the participation in a match (try to equal). The two input spaces share some structure, represented in the generic space, in which competitors compete for the particular purpose with another competitor in a competition.

In Figure 1, solid lines represent the cross-space correspondences that constitute the mapping between the input spaces, bold arrows represent projections between spaces, and the dashed arrow between *to try to equal with a particular player in a number of goals scored* and *play catch-up* in the blend represents the fact that *play catch-up* in the blend is associated with *an act of trying to equal with a player in a number of goals scored* in the target space. Besides inheriting partial structure from each input space, the blend yields new emergent meaning structure, which

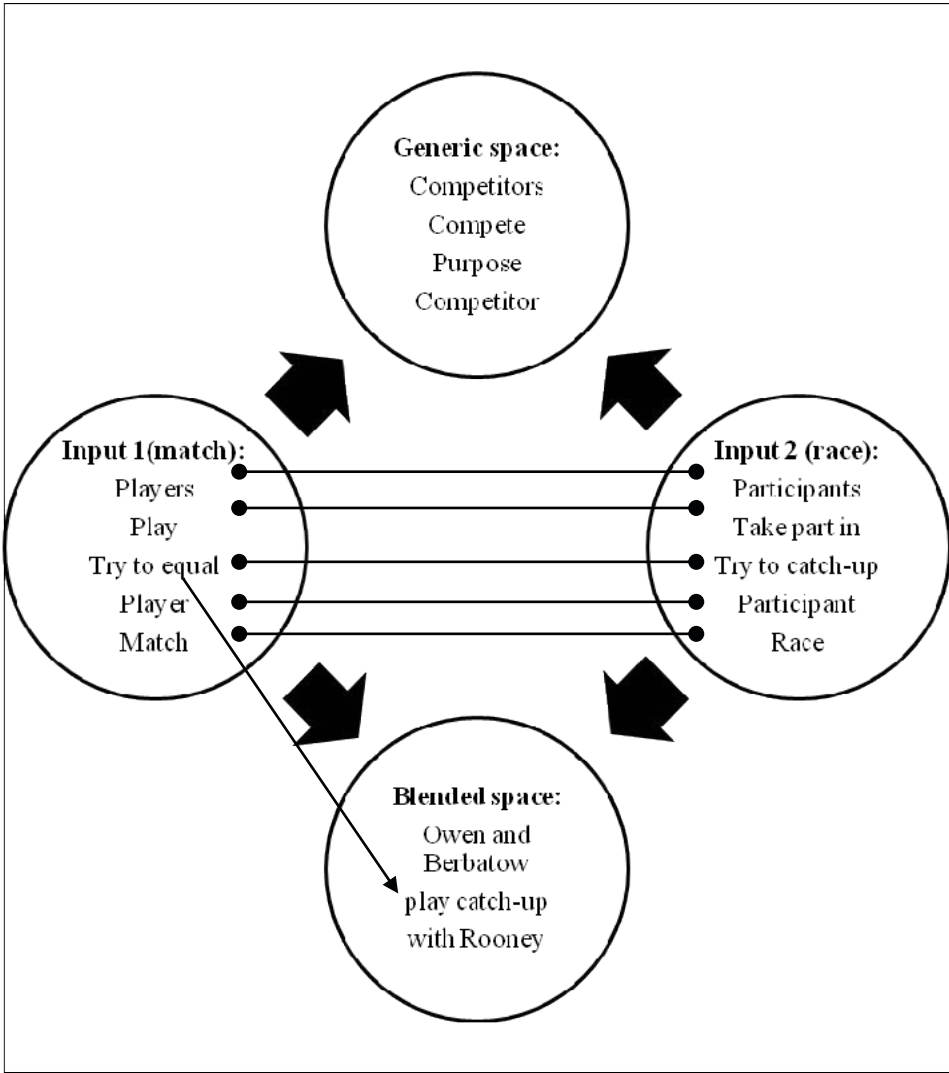


Figure 1. Meaning construction of the sentence *Owen and Berbatow play catch-up with Rooney against Arsenal* and the construction to *play catch-up*

results from the integration and fusion of some elements from the inputs. The target space projects the form-concept pair *play*, while the source space projects the phonological form-concept *catch up*. These elements are combined and fused together with other elements, giving rise to the form-concept pair *play catch-up* and the sentence *Owen and Berbatow play catch-up against Arsenal*, which means that Owen and Berbatow compete with Rooney in the match against Arsenal and try to equal with him in a number of goals scored against Arsenal.

Another example of metaphoconstructions *play host to*, found in the sentence *The Sky Blues play host to the North Queensland Fury*, evokes the conceptual metaphor A MATCH IS A VISIT. More specifically, this construction is a derivative of two conceptual domains being connected. We can observe systematic correspondences between the concept of *match* and that of *visit*. Here are some of these correspondences: A HOME TEAM IS A HOST who holds and arranges a sporting event; AN AWAY TEAM IS A GUEST who attends this event; TO PLAY HOME WITH AWAY TEAM IS TO PLAY HOST TO AWAY TEAM. The linguistic expression *host* comes from the source domain of visit, while the verb *to play* is derived from the domain of actor's performance: TO PLAY THE ROLE IS TO PLAY HOST. These observations lead me to suggest that the sentence pattern can be fully explained by blending theory, where the conceptual metaphor A MATCH IS A VISIT will be treated as two INPUT SPACES. The generic space of both the MATCH frame and the VISIT frame represents conceptual structure that is shared by both inputs. The ACTOR'S PERFORMANCE frame will be treated as the GENERIC SPACE and the SOURCE DOMAIN of both the MATCH frame and the VISIT frame. The blended space will combine and interact material from the inputs. By way of illustration, let us look at Figure 2.

The example and the metaphor can be considered as a case of blending in the following way. In Figure 2, solid lines represent the cross-space correspondences that constitute the metaphorical mapping between the input spaces, while bold arrows represent projections between spaces. The bold arrows between *the home team* and *The Sky Blues*, between *the away team* and *the North Queensland Fury*, as well as between *play home with away team* and *play host to* represents the fact that the *Sky Blues*, the *North Queensland Fury*, and *play host to* in the blend are associated with the *home team*, the *away team*, and *play home with away team* in the target space.

There are two input spaces (a soccer match and a visit), a generic space (the actor's performance frame), and a blended space. There are systematic correspondences between the elements of the source input and those of the target input:

Home team	←	host	
Play home with away team		←	play host to
Away team		←	guests
match		←	visit
home		←	host's home

The generic space of both the MATCH frame and the VISIT frame contains the skeletal information “the act of playing the role of host”. In the blend we have the frame of VISIT in which *The Sky Blues* (a home team) *play host to* (play home with) *the North Queensland Fury* (an away team). It is noteworthy that the blend

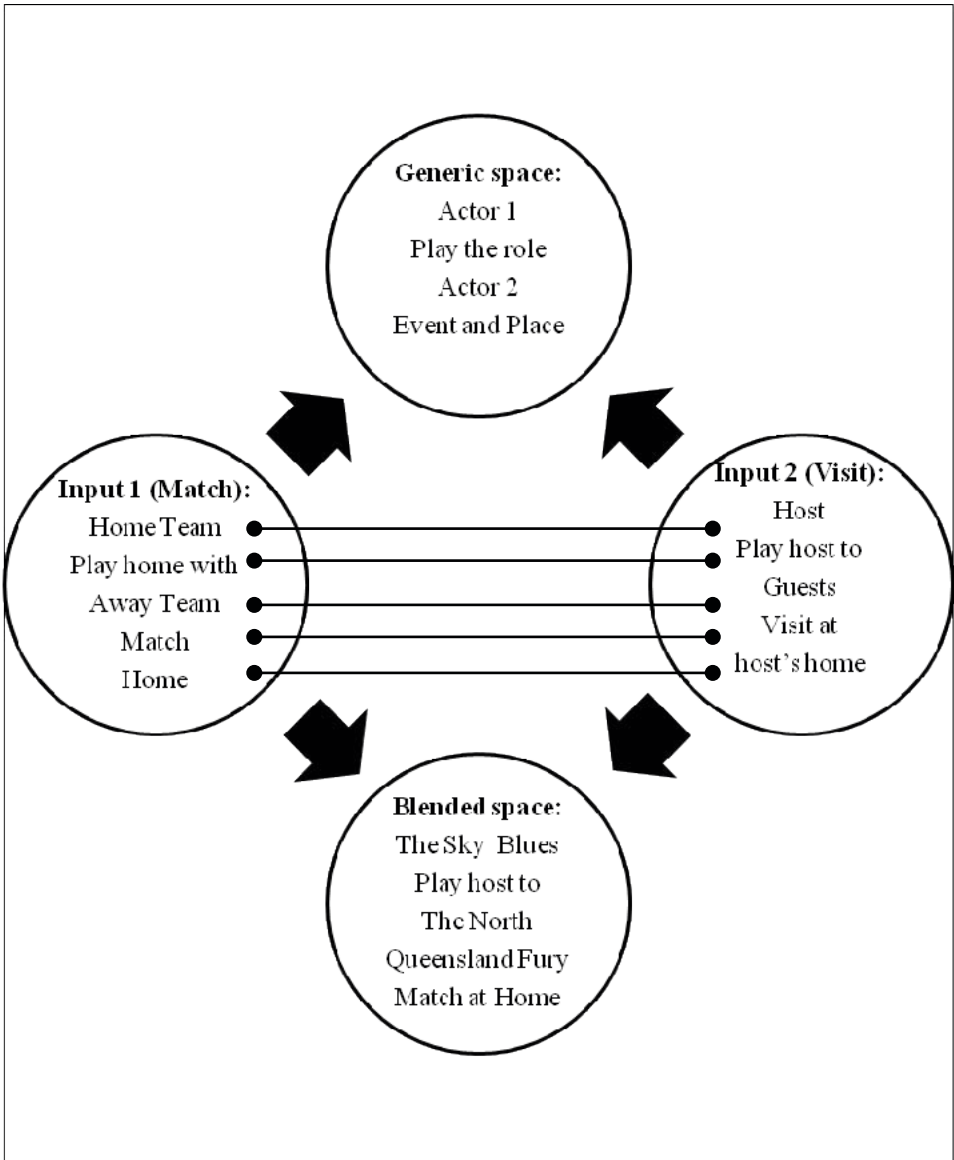


Figure 2. Meaning construction of the sentence *The Sky Blues play host to the North Queensland Fury* and the metaphoconstruction *play host to*

has the structure of one of the input spaces (i.e. a visit) in which particular roles of that frame are instantiated by elements of the other input space (i.e. a match). *Play host to* comes from the source input, while *The Sky Blues* and *the North Queensland Fury* come from the target. What makes the comprehension of the sentence possible is the set of conventional correspondences between the source

and target: the host corresponding to the home team, the guest to the away team, and the act of playing host to referring to playing home with. Figure 2 provides all this information.

The source domain of VISIT imposes part of its structure on the blended space. By virtue of instantiating the roles in the source frame by elements in the target frame, a new blended space emerges. Its newness stems from the fact that both participants in the target (*the Sky Blues* and *the North Queensland Fury*) will participate in the blended space as the host and the guest, the act of playing home with the away team will be fused with the act of playing host to the guest.

‘To play [role]’ construction versus ‘to play as [role]’ construction

Sentences such as those in (1f) and (1g) above reveal an interesting property of the verb *to play*, namely, that it requires in its bivalent uses a second complement realized either as a direct object or a prepositional phrase. In the former version (1f), the direct object refers to the specific position in a team or a formation. This reference to the certain position occupied by a player is identical to the use of *to play* indicating the performance of an actor. As in a theatrical performance, each player takes a specific part or role. To define the player’s role, the verbs occur in the same (copula-like) manner, as in the context of a performance on stage. The latter type of this construction is exemplified by the sentence (1g) which similarly mentions the position or role of a player in a formation. However, here this role is provided by a prepositional phrase that can be classified as a positional complement, since the preposition *as* together with the following noun refer to a player’s position. Both constructions are derived from the conceptual metaphor TO PLAY A POSITION IS TO PLAY A ROLE.

There are a number of the same lexical units (such as a *striker* and an *attacker*) that co-occur with the verb in both of these constructions, which may lead us to assume that the two constructions are semantically equivalent. However, a quantitative analysis of these constructions shows that there are also semantic restrictions imposed on them: that is, some nouns are more significantly attracted to ‘to play as [role]’ construction as compared to ‘to play [role]’ construction.

In order to calculate the association strength of a given lexical item, e.g., *forward* (in this case, its distinctiveness), the following four frequencies are required: the frequency of the word (*forward*) in the ‘to play as [role]’ construction, the frequency of the same word in the ‘to play [role]’ construction, and the frequencies of the ‘to play as [role]’ construction and the ‘to play [role]’ construction with words other than the collexeme in question. These have then been entered in a two-by-two table and examined by means of the Fisher exact test. Figure 3 shows the frequencies required for a distinctive collexeme analysis of the nouns in the ‘to

play as [role]'construction and the 'to play [role]' construction as well as the results of this analysis. It also provides the expected frequencies for each combination of noun and construction: (a) and (c). The figures (a, c, x, y) were extracted from a corpus, the other figures (b, d, f, z) are the results of additions and subtractions.

'to play as [role]'construction 'to play [role]' construction	a	c	e	f	x	y	z	b	d	(a)	(c)	$P_{\text{Fisher exact}}$
play as forward/forward	17	3	20	140	97	63	160	80	60	12.125	7.875	0.013027017
play as player/player	3	0	3	157	97	63	160	94	63	1.81875	1.18125	0.22008598
play as goalkeeper/goalkeeper	5	1	6	154	97	63	160	92	62	3.6375	2.3625	0.238201828
play as striker/striker	28	15	43	117	97	63	160	69	48	26.0688	16.9313	0.302410668
play as attacker/attacker	2	0	2	158	97	63	160	95	63	1.2125	0.7875	0.366037736
play as back/back	10	5	15	145	97	63	160	87	58	9.09375	5.90625	0.4173617
play as sweeper/sweeper	5	3	8	152	97	63	160	92	60	4.85	3.15	0.610397266
play as midfielder/midfielder	12	9	21	139	97	63	160	85	54	12.7313	8.26875	0.72478518
play as midfield/midfield	1	1	2	158	97	63	160	96	62	1.2125	0.7875	0.846462264
play as winger/winger	5	6	11	149	97	63	160	92	57	6.66875	4.33125	0.915793484
play as defender/defender	1	4	5	155	97	63	160	96	59	3.03125	1.96875	0.991432248

a = Observed frequency of noun (e.g. forward) in 'to play as [role]'construction; **b** = Frequency of all other nouns in 'to play as [role]'construction; **c** = Observed frequency of the same noun in 'to play [role]'construction; **d** = Frequency of all other nouns in 'to play [role]'construction; **e** = Total frequency of noun (e.g. forward); **f** = Total frequency of all other nouns; **x** = Total frequency of to play as [role]'construction; **y** = Total frequency of to play [role]'construction; **z** = Total frequency of both constructions; **(a)** = Expected frequency of noun (e.g. forward) in 'to play as [role]'construction; **(c)** = Expected frequency of noun (e.g. forward) in 'to play [role]'construction; $P_{\text{Fisher exact}}$ = index of distinctive collostructional strength.

Figure 3. The results and the frequencies required for a distinctive analysis of the nouns in the 'to play as [role]'construction and the 'to play [role]' construction

The smallest p-values resulting from the calculation of Fisher exact for the distribution of nouns are: 0.013027017; 0.22008598; 0.238201828; 0.302410668. They tell us that the nouns (*forward*, *player*, *goalkeeper*, *striker*) are highly distinctive for one of the two constructions, but they do not tell us for which one. In order to determine this, let us compare the observed frequencies with the expected frequencies. As the expected frequencies provided in (a) and (c) indicate, these nouns occur more frequently than expected in the 'to play as [role]'construction as compared to the 'to play [role]' construction. Thus, although the nouns occur in both constructions, they are highly distinctive for the 'to play as [role]'construction. In the case of the 'to play [role]'construction, it can be seen that the most distinctive collexeme is *midfielder*.

In sum, the distinctive-collexeme analysis of pairs of semantically more-or-less equivalent expressions shows that nouns denoting a specific position or role played by a player are more significantly attracted to the ‘to play as [role]’ construction as compared to the ‘to play [role]’ construction.

Conclusion

The purpose of this article was to postulate the existence of metaphoconstructions, metaphorical pairings of form and meaning, where form is composed of lexical items derived from both the source domain and the target domain, while their meaning is dependent upon the conceptual metaphor and conceptual integration in a particular context. In order to extract and identify metaphoconstructions, a corpus-based approach to the investigation of metaphorical target domains has been proposed and demonstrated. This method relies on retrieving lexical items from the target domain and identifying the metaphorical constructions associated with them. It outperforms the introspective method in the identification of metaphorical mappings associated with a particular target domain, since it allows more exhaustive extraction of lexical items referring to the target domain under investigation and strict quantification of the results.

In order to perform a quantitative analysis of constructions, a distinctive collexeme analysis has been adopted. The method has been employed for investigating pairs of semantically similar constructions and the lexemes that occur in them, i.e. for identifying relative preferences for words that can (or should be able to) occur in both of them. The results of the study concerning the ‘to play [role]’ construction versus the ‘to play as [role]’ construction have revealed subtle differences between these semantically or functionally near-equivalent constructions. In the case of the ‘to play [role]’ construction versus the ‘to play as [role]’ construction, the distinctive-collexeme analysis has shown that nouns denoting a specific position or role played by a player are more significantly attracted to the ‘to play as [role]’ construction as compared to the ‘to play [role]’ construction. Furthermore, the results have confirmed that there are clearly distinctive collexemes for each of the two constructions.

The present article makes a noteworthy contribution to a growing body of literature on metaphors by postulating the existence of metaphoconstructions. The method used for the extraction and identification of metaphoconstructions can be systematically applied in a large number of target domains. Further research is also needed to investigate quantitative properties of metaphoconstructions. For example, the relative frequency of lexical items in a given metaphoconstruction may be used to assess the degree to which the construction in question is motivated by a metaphorical mapping. The relative frequency of lexical items in a set of metaphorical constructions may be used to determine the degree to which the metaphorical correspondence underlying them can be considered as a true conceptual metaphor.

The method used in this paper can have a wide range of practical and theoretical applications in language study and applied linguistics. First, it allows us to raise important issues about metaphorical correspondences: namely, (i) cross-cultural and cross-linguistic similarities and differences in the metaphorical conceptualization of experience; (ii) the productivity of given metaphorical mappings; (iii) the relevance of a particular metaphorical mapping to a given target domain. Second, it allows us to quantify the frequency of individual metaphors. Third, it can be employed for developing linguistic theory. Finally, it can be adopted for the purpose of identifying the meaning of metaphorical expressions and determining which lexical items or expressions are strongly associated with or repelled by a particular target domain.

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