Imagining for speaking: A lexically based theory of conceptual projection

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Abstract
This paper develops an account of *conceptual projection.* Conceptual projection is a general symbolically mediated process central to meaning-construction. In the context of language use, it involves the projection of a *lexical concept*—the semantic representation conventionally associated with linguistic units such as words—or a related and coherent set of lexical concepts, onto novel utterance contexts (including other lexical concepts), in service of the formation of a *conception*—the situated meaning associated with an utterance. Conceptual projection is central to innovation and creativity in language use, and is most clearly in evidence when revealed by 'figurative' language use. Conceptual projection is also crucial to language use that results in regular semantic change, a more gradual process and less strikingly figurative. Nevertheless, the same mechanism of creativity and innovation plays a crucial role here too. One of the hallmarks of conceptual projection is in providing a *framing device*, particularly in terms of representing specific points of view, such as in public discourse debates. Conceptual projection is also central to and underpins analogy. However, the defining feature of conceptual projection is that it is grounded in linguistic symbol use, utilising lexical concepts. We illustrate our major claims by drawing on figurative language use, including data drawn from the domain of public discourse. We also compare and contrast our approach with that of Conceptual Metaphor Theory (CMT), arguing that CMT is inadequate as an account of innovative language use as it is psychologically implausible, descriptively inadequate and fails to properly engage with the linguistic resources which facilitate conceptual innovation.

1. Introduction

Our aim in this paper is to develop an account of *conceptual projection*. Conceptual projection is a general symbolically mediated process central to meaning-construction. In the context of language use, it involves the projection of a *lexical concept*--the semantic representation conventionally associated with linguistic units such as words (Evans 2004a, 2005b) -- or a related and coherent set of lexical concepts, onto a novel utterance context (including other lexical concepts), in service of the formation of a *conception*--the situated meaning associated with an utterance (Evans 2005b). Conceptual projection is central to innovation and creativity in situated language use, and is most clearly in evidence when revealed by 'figurative' language use. Conceptual projection is also crucial to language use that results in regular semantic change, a more gradual process and less strikingly figurative. Nevertheless, the same mechanism of creativity and innovation plays a crucial role here too, as we shall argue. One of the hallmarks of conceptual projection is in providing what we will refer to as a *framing device*, particularly in terms of representing specific points of view, particularly in public discourse, as we shall see in detail later. Conceptual projection is also central to and underpins analogy, although this is a topic we defer for a later paper. However, the defining feature of conceptual projection is that it is grounded in linguistic symbol use, utilising lexical concepts.

The influential research tradition associated with Lakoff and Johnson (e.g., 1999; 1980) and their collaborators has argued that an explanatory account of figurative language is to be found not by focusing on the 'symbolic' resources of language, but rather in what we might refer to as 'sub-symbolic' conceptual structures

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independent of language. One of our objectives in this paper is to make the case that this general perspective fundamentally misconceives the nature of and resources available in language, and the mechanism that facilitates innovation using symbolic structure, which we refer to as conceptual projection. This relates to our central claim: conceptual projection as it occurs in the context of linguistic activity is language-specific. Adapting a term coined by Slobin (1996), we refer to this process as 'imagining for speaking'. .

One of the major functions of imagining for speaking is to facilitate deviation from linguistic convention in order to provide novel perspectives and describe new situations and scenarios. In other words, conceptual projection facilitates innovation and creativity by 'rearranging the familiar in unfamiliar ways'. This is achieved by making use of the linguistic resources available.

As the perspective we present could be construed as anachronistic, particularly given the influence and almost unquestioned status as axiomatic that Lakoff and Johnson's theory has achieved amongst certain groups of linguists and cognitive scientists, we adopt the following strategy. Rather than presenting a detailed architecture of our theory here, our main objective in this target article is to present the case that the conceptual structure involved in imagining for speaking is constituted by *lexical concepts*-- --and is thus language specific.

The semantic phenomena we will be concerned with have been addressed in a range of ways in a number of different traditions, from various, often divergent, perspectives. Terms that have frequently been employed to describe at least a subset of the data we will be examining include 'analogy', 'metaphor' and 'conceptual metaphor'. There are a number of reasons, however, for preferring the term conceptual projection. The first is that terms such as 'metaphor' have certain connotations which we wish to avoid, particularly as used in the traditions associated with rhetoric and philosophy of language. Moreover, we wish to emphasise that the sort of linguistic data we will be analysing have a conceptual basis. Another reason for our choice of term is that there is an important and influential theoretical approach, known as Conceptual Metaphor Theory (hereafter: CMT) associated with Lakoff and Johnson (e.g., 1999; 1980) and their various collaborators. As noted above, we will be taking issue with this theoretical approach. Indeed, we will argue that the construct of 'conceptual metaphor', as presented by Lakoff and Johnson, is problematic both in terms of its psychological underpinnings and in terms of a descriptively adequate account of the facts of language. In essence, we hold the view that CMT fails to appreciate the extent to which conventional linguistic knowledge is crucial to conceptual innovation and creativity, and thus fails to engage properly with conceptual structure as encoded in and specialised for externalisation via language. This is symptomatic of a more serious failure to adopt an appropriately usage-based perspective with respect to language, and in terms of the creativity and innovation evident in language use. Thus, we prefer a term that is theory-neutral. A further reason for preferring the term conceptual projection is that we will be presenting a programmatic overview of a theory of semantic structure, which, we argue, underpins a cognitively and communicatively realistic account of meaning-construction (see Evans 2005b for details). A crucial mechanism employed in this theory of meaning-construction involves the 'projection' of lexical concepts onto novel contexts by language users in service of specific and situated communicative goals and intentions. Thus, conceptual projection is a function of language use.

To give an immediate sense of the sorts of linguistic data that we will be dealing with in this paper, consider the following:

(1) a. A *long* time
b. A *loud* shirt

(2) a. The time *whizzed by*
b. Things are *going smoothly* (in the operating theatre)

(3) a. Achilles is *a lion*
b. Europe is our *common house*

What is common to all these examples is that in some sense the italicised linguistic expressions are, on the face of it, being used in a non-literal or a figurative way. For instance, in (1a) the adjective *long* is being used to modify a non-physical entity *time*, providing a reading relating to duration, rather than literally 'length'. Similarly in (1b) *loud* is modifying an entity, a salient aspect of which concerns colour rather than auditory volume, for instance. Yet, this example is ordinarily held to provide a meaning relating to a shirt of a particularly strident colour, which thus attracts involuntary attention.

The examples in (2) relate to 'abstract' entities such as 'time', or 'events in an operating theatre' which have motion ascribed to them. Clearly, events cannot undergo veridical motion in the way that physical entities such as humans or automobiles can. Thus, the predicates in (2) serve not to describe physical motion, but rather serve as a means for understanding the nature of the subject of each of these example utterances. In (2a) the entity referenced by *time* is proceeding 'more rapidly' than usual, the phenomenon that psychologists refer to as *temporal compression* (Flaherty 1999; see Evans 2004a for a review). In (2b) the predicate which ascribes 'smooth' motion to events in an operating theatre serves to provide an interpretation concerning the nature and manner of the events in question. That is, the events are unfolding in a way that is desired, without undue difficulty or complication.

Finally, the utterances in (3) constitute the sorts of examples which philosophers of language as well as psycholinguists most often provide as examples of what they mean by 'metaphor': Expressions that take the form 'X is Y', but are not literal class-inclusion statements. While 'Achilles', a man, albeit a mythical warrior, cannot literally be a 'lion', Europe is not literally a 'house'. In our theory, the lexical concept that is subject to the projection of structure from another is said to have undergone what we refer to as *concept elaboration*. Thus, in the examples in (3) just discussed, Achilles can be said to have been *elaborated* in terms of structure relating the lexical concept conventionally associated with the form *lion*. Similarly, Europe is elaborated in terms of structure relating to the concept encoded by the expression *common house*.

An important focus of the theory we develop concerns the 'meaning' associated with figurative language use. We argue that conceptual projection is a situated usage-based phenomenon employed by language users as a means of expressing a particular communicative intention, including expressiveness. The situated 'meanings' associated with utterances, including those involving conceptual projection, we refer to as conceptions. Thus the conceptions associated with the examples above are all representative of ways of expressing particular communicative intentions.

CMT provides perhaps the best known, and arguably the most influential, theoretical framework which offers a unified treatment of the range of data illustrated

in (1) through (3). However, and as we will argue, the price paid for such a unified treatment is to posit highly abstract underlying knowledge structures such as conceptual metaphors for which there is scant direct evidence. These are held to be grounded in even more abstract entities such as *image schemas* (e.g., Lakoff 1987; 1993; 1990; Johnson 1987) and more recently *primary scenes* (Lakoff and Johnson 1999). This means that metaphorical 'thought' is now described in CMT as emerging at what we referred to above as a 'sub-symbolic' level, and that language merely expresses metaphors which are themselves independent of language-specific semantic structures.

In contrast, the main gist of our argument is that a) only the examples in (3), and possibly (2a), require conceptual projection for contemporary speakers of English and b) conceptual projection employs conceptual structures (lexical concepts) conventionally associated with the particular linguistic forms used, i.e. *house*, *lion*, and *whiz by*. The theory of semantic structure we sketch provides an account of the 'literal' and 'figurative' use of language without resorting to mystical 'sub-symbolic' structures for some aspects of language use. Moreover, we treat figurative language as simply a dimension of the same language use which results in literal language. The distinction, on our account, is not a principled one, but is better modelled in terms of a continuum, a function of the interaction of the symbolic resources of language users in prompting for a particular conception (i.e., utterance-meaning). Our account of figurative language treats such as a function of the construction of meaning for situated communicative goals. It is consistent with the *usage-based perspective* towards linguistic structure and organisation developed in recent research in accounting for knowledge of language, i.e., 'grammar' (e.g., Langacker 1987; 2000), language change (e.g., Croft 2000) and language acquisition (e.g., Tomasello 2003).

In this paper, we focus on one major claim of our theory of conceptual projection. This claim is that conceptual projection as it occurs in the context of linguistic activity (imagining for speaking) is grounded in conventional semantic structure: knowledge structures as conventionalised in a language community and as entrenched in semantic memory--what we are referring to as lexical concepts--constitute the basis of conceptual projection. Conceptual projection acts on conventional semantic structure. It does so by projecting lexical concepts onto specific utterance contexts, including other lexical concepts, in order to give rise to conceptions, which, by definition, are novel. Through regular processes of semantic reanalysis, to be explicated, these can give rise to semantic change. That is, conceptual projection is an important mechanism in regular semantic change. This means that we firmly link our theoretical construct of conceptual projection to semantic innovation.

We sustain our major claim in three steps. In the next section, we present a programmatic overview of our theory, which we refer to as the *Lexical Concepts Theory of Conceptual Projection*. While we highlight important contributions that CMT has made to the study of conceptual projection, we nevertheless point to converging evidence strongly suggesting that projection is based in semantic structure. Evidence of the sort we review suggests that CMT represents both a psychologically and a descriptively inadequate account of the sorts of linguistic phenomena it attempts to account for. In section three, the main section of this paper, we argue in detail for this contention. In particular we show that conceptual projection occurs between lexical concepts rather than the rather vague notion of 'domains' (employed in CMT), and that coherent patterns of figurative language develop in sociohistorical time, rather than being 'licensed' by pre-existing domain mappings.

We show that a theory of conceptual projection that focuses on the level of the lexical concept is more powerful in accounting for linguistic patterns, and is thus more decriptively adequate than a theory such as CMT that seeks broader generalisations. In section four, we show that the account of figurative language we present predicts the results of empirical research in the field of psycholinguistics. Section five presents conclusions.

2. The nature of conceptual projection: a programmatic overview

In this section we present a programmatic overview of our theory of conceptual projection.

We suggest that the process of conceptual projection is pervasive. Therefore, any theory of linguistic semantics needs to include a theory of conceptual projection. As observed in earlier research (Weinrich 1958; Lakoff and Johnson 1980), many conventional figurative expressions for talking about abstract or complex issues seem to adhere to a common 'theme'. Consider these examples of utterances relating to theories (taken from Grady and Johnson 2003):

(4) (a) You have failed to **buttress** your arguments with sufficient facts.
(b) Recent discoveries have shaken the theory to its **foundations**.
(c) Their theory **collapsed/caved in** under the weight of scrutiny.

In CMT, examples like those in (4) are used to support the view that there is a general conceptual domain called THEORIES which is metaphorically understood in terms of a general domain called BUILDINGS.

A theory of conceptual projection needs to explain the existence of such patterns. However, the kind of broad generalisation offered in CMT runs into a range of problems. One is that not everything we know about buildings is habitually applied to thinking about theories. CMT 'solves' this problem by positing a further level of conceptual metaphors, called 'primary metaphors' which motivate 'complex metaphors' such as the one called THEORIES ARE BUILDINGS. 'Mapping gaps' in 'complex metaphors' are then explained in terms of the constraining force of the 'underlying' primary metaphors. This means that linguistic behaviour is explained in terms of underlying conceptual metaphors, which are in turn explained in terms of underlying primary metaphors. In other words, this 'solution' requires us to accept the idea of several levels of abstract conceptual structures hidden in the 'black box' of the 'cognitive unconscious' (Lakoff and Johnson 1999). The approach we suggest in section three does not run into this problem, because the possibility of a figurative expression is not constrained by general mappings 'licensing' a particular range of expressions. Rather, on our account, figurative expressions are motivated by context-specific factors such as intentions and point of view, and the conventionalisation of a figurative expression depends on its communicative success and popularity.

Instead of seeking generalisations that are as broad as possible, we will argue that conceptual projection uses knowledge organised around the conceptual representations that are specialised for being encoded by linguistic units such as words. These representations, what we refer to as lexical concepts, constitute the semantic 'pole' of a given linguistic (i.e., form-meaning) unit. Thus, we will argue that the conventionality of the expression in (4a) tells us something about the conceptualisation of *argument*, whereas the expressions in (4b-c) tell us something about the conceptualisation of *theory* in (American) English.

Another problematic aspect of the CMT account is that it does not distinguish between novel and conventional expressions. Both are considered to be 'licensed' by the same 'conceptual metaphor'. CMT claims that a figurative utterance such as "*You'd need an electron microscope to find the point in this article*" (Grady 1999, p. 102) is possible precisely because there is a conventional metaphor called KNOWING IS SEEING, which also 'licenses' conventional expressions such as "*I can't see the point of this article*".

On our account, only the former utterance involves conceptual projection, the latter involves what we refer to as *concept collocation*. That is, concept elaborations which arise due to conceptual projection, can, through successful propagation, come to be conventionalised as concept collocations. These entities, which can be thought of as 'pre-assembled' conceptions, form part of the symbolic resources available to the language user of the appropriate (English-speaking) linguistic community. We will show in section three that it is not necessary to posit independently existing 'conceptual metaphors' in order to explain the frequent semantic coherence of innovative expressions with conventional ones. As we show in section four, an account that distinguishes conventional from innovative figurative expressions, as ours does, but which also views both sorts of expressions as due to the same fundamental process of lexically based meaning-construction, is necessary to accommodate the results of psycholinguistic experiments.

One reason for positing abstract 'conceptual metaphors' such as THEORIES ARE BUILDINGS is motivated by the contention lying at the heart of CMT that metaphor is not an ornament of speech. Rather, "human *thought processes* are largely metaphorical" (Lakoff and Johnson 1980, p. 6). We agree that thought processes involving conceptual projection are pervasive. However, as indicated, we qualify this position by distinguishing between novel figurative expressions that do involve projection and conventional figurative expressions that do not require projection.

One line of evidence for the contention that 'conceptual metaphors' exist independently from language is the observation that similar metaphors are used across modes of expression. For example, it is quite conventional to say that someone is "burning with anger" to express a heightened intensity of the referent's anger, and it is equally conventional in the medium of comic-strips to draw angry people with steam coming out of their heads (Forceville 2005). However, we suggest that this coherence across modalities emerges in a process of *homogenisation*, rather than being a symptom of independently existing 'conceptual metaphors' at a 'deep' level. We claim that the conceptual basis of conceptual projection is medium-specific.

An importnant innovation of CMT is the observation of an asymmetry in conventional patterns of figurative language. Metaphors which are successful and turn into patterns of conventionalised figurative expressions show directionality: knowledge derived from 'external' experience (i.e. visual, auditory, tactile perception) is projected onto domains that are less accessible to this kind of experience (such as values, feelings, etc.). For example, speakers of diverse languages develop markers of TEMPORAL ANTERIORITY from expressions for the concept FRONT (e.g., 'before'), but rarely the other way around (exceptions see Haspelmath 1997).

CMT maintains that this tendency is due to the embodiment of human cognition. Only entities that our bodies can interact with are directly meaningful, and only the expression of such directly meaningful experience should be called 'literal'. All the rest of cognition, and the rest of language, is non-literal, and mostly metaphorical according to CMT. This particular view of the embodiment of cognition

yields a very narrow understanding of literal meaning, and conversely, a very broad understanding of figurative meaning.

We agree that any theory of conceptual projection needs to account for the fact that cross-linguistically common patterns of meaning extension often appear to show a directionality from domains of 'external' experience to domains of 'internal' experience. However, the particular view of embodiment presented by Lakoff and Johnson as a universal, physical basis for cognition is deeply problematic. Weinrich (1958), in his study of the systematic elaboration of the topic domain of LANGUAGE in terms of MONEY (e.g., "coin a new term"), showed half a century ago that 'source domains' are not necessarily reducible to individual physical experience. We acknowledge that embodiment is an important constraint on conceptual development. However, we will argue that it is not embodiment, or individual physical experience, that drives processes of concept elaboration.

We believe that the view of embodied cognition advocated by Lakoff and Johnson, in which language is simply the endpoint of a unidirectional development, can do justice neither to the relation between language and thought in general nor to questions around conceptual projection and the dynamics of meaning in particular. According to CMT, the most fundamental metaphorical mappings become established early in cognitive development as a result of pre-linguistic experience. Metaphors in language are merely expressions of these conceptual mappings. We believe, on the contrary, that semantic representation in language does more than just mirror pre-existing conceptualisation. Modes of symbolic expression, such as language, 're-tool' cognition. It seems that the ability for conceptual projection in particular requires symbolic representation. This hypothesis is supported by considerations from both human cognitive evolution (Mithen 1996; Premack 1983; Gillan, Premack, and Woodruff 1981) and ontogenetic development (Gentner 2003): Neither chimps nor human children are capable of solving analogy tasks before they have learnt to represent relations in terms of abstract, disembodied symbols.

We therefore claim that an account that takes a symbol system such as that constituted by lexical concepts as the basis of conceptual projection can explain regularities in conceptual projection; it can explain the nature of innovative language use; and it also takes into account the conceptual nature of projection. In section three, we sketch just such an account.

3. Conceptual projection and semantic structure

In this section we present our argument for the case that conceptual projection in the context of language use (imagining for speaking) is based on the units that constitute semantic structure. We make the case that patterns of projection relate to particular lexical concepts, i.e. form-specific conceptual units – rather than general ideas summarised as 'domains'.

Our argument entails the assumption that *the production and comprehension of conventional language does itself not require conceptual projection*. Indeed, we will argue that many of the expressions that have been regarded as evidencing 'conventional metaphors' (such as *a long time*) in CMT are in fact conventional but not metaphorical. We will sketch a usage-based account (Barlow and Kemmer 2000; Langacker 1987; for discussion see also Croft and Cruse 2004; Evans and Green in press) in which the conventionalisation of collocations leads to the entrenchment of new lexical concepts, so that projection is no longer required.

3.1 Lexical Concepts

Imagining for speaking is crucially mediated by language. It is a function of the linguistic resources of a given language, i.e. lexical concepts, and situated language use in a particular socio-cultural context. In order to present our argument that conceptual projection occurs by virtue of elaborating structure 'between' lexical concepts rather than 'domains', we need to briefly explain the construct of *lexical concept* (Evans 2004a; for a detailed exposition see Evans 2005b). A lexical concept, also referred to as a *sense* (e.g., Tyler and Evans 2003), and similar to the related notion of *lemma* (Levelt 1989) is a conventional conceptual or semantic unit which is *form-specific*. That is, lexical concepts constitute the semantic pole in any given *linguistic unit*, such as a word. By 'linguistic unit' we have in mind any conventionalised symbolic form-meaning pairing, in the sense of, for instance, Langacker's *symbolic assemblies* (1987), or Goldberg's notion of *construction* (Goldberg 1995; 2003; see Evans and Green in press for a review).

Any given lexical item such as a word typically has multiple lexical concepts conventionally associated with it, modelled in terms of a *semantic network.* In the literature semantic networks have typically been diagrammed as a radiating lattice structure (e.g., Evans 2004a; 2005a; Evans and Green in press; Tyler and Evans 2003). Another way of stating this is that lexical concepts represent the *coded meanings* (Traugott and Dasher 2002) associated with a linguistic unit. By 'coded' we mean 'conventional', a term which we elaborate on below. A consequence of a single form being conventionally paired with a range of lexical concepts, and these meanings being related to one another by degrees, is that lexical concepts exhibit degrees of relatedness ranging from full distinctness or ambiguity to vagueness.[1] Points holding between these two poles can, to varying degrees, be described as *polysemous* (Tuggy 1993). Thus, the relationships captured in a semantic network, modelling the full range of lexical concepts associated with a given linguistic form, can be thought of in terms of a continuum of relatedness at the conceptual level.

For instance, the lexical concepts [FINANCIAL INSTITUTION] and [EDGE OF A RIVER] associated with the form *bank* are normally taken as being wholly unrelated. Thus, these lexical concepts can be said to be ambiguous. However, these lexical concepts, while ambiguous, must be minimally related in so far as they share the same form (Bybee 1985), irrespective of whether one assumes there are two identical forms, or a single form represented in *semantic memory* (our term for what has traditionally been referred to as the 'mental lexicon'). An example of vagueness is given by the English example *aunt*, which fails to distinguish between 'sister of father' vs. 'sister of mother', concepts which are distinguished by distinct forms in other languages. Some examples of lexical concepts related by polysemy are given below (for detailed discussion of time, see Evans 2005a; for over, see Tyler and Evans 2003; for fly, see Evans and Green in press):

time (noun)

(5) a. The relationship lasted a long time [DURATION]
b. The time for a decision has come [MOMENT]
c. Her time [=death] has come [EVENT]
d. British Summer Time begins today [MEASUREMENT-SYSTEM]
e. The sales figures improved for the third time in the quarter

[1] See Cruse e.g., 2000, 20002; Croft and Cruse 2004 for tests for establishing distinctness.

[INSTANCE/OCCURRENCE]

over (preposition)

(6) a. The picture is over the sofa [ABOVE]
b. The picture is over the hole [COVERING]
c. The ball is over the wall [ON-THE-OTHER-SIDE-OF]
d. The government handed over power [TRANSFER]
e. She has a strange power over me [CONTROL]
f. The relationship evolved over the years [TEMPORAL]

fly (verb)

(7) a. The plane/bird is flying (in the sky) [SELF-PROPELLED AERODYNAMIC MOTION]
b. The pilot is flying the plane (in the sky) [OPERATION BY AGENT OF ENTITY CAPABLE OF AERODYNAMIC MOTION]
c. The child is flying the kite (in the breeze) [CONTROL OF LIGHTWEIGHT ENTITY BY AGENT]
d. The flag is flying (in the breeze) [SUSPENSION OF LIGHTWEIGHT OBJECT]

An important point is that lexical concepts are conceptual in nature. That is, the meaning associated with linguistic units such as words constitute concepts. Such meaning elements constitute the conventional form that conceptual structure takes for being encoded in language. That is, conceptual entities of this kind are 'specialised' for being externalised via language.

Claiming that the semantic pole associated with a linguistic unit is a lexical concept does not entail that we are equating semantic structure (the nature and structure of lexical concepts), with conceptual structure. While semantic structure is a subset of conceptual structure, there are many more concepts than we have conventionalised linguistic resources for expressing. Indeed, a crucial function of meaning-construction, which arises by virtue of language use, is to prompt for novel conceptions, as we will see in detail in the following section.

Tyler and Evans (2001; 2003) proposed two lines of evidence for identifying lexical concepts, based on a relatively detailed analysis of English prepositions. In his later analysis of the English abstract noun *time*, Evans (2004a; 2004b; 2005a) posited a more sharpened methodological set, based on three criteria. We briefly review these criteria which provide a means of establishing distinct lexical concepts in semantic memory, and thus for the validity of positing the notion of a lexical concept as a theoretical construct.

The criteria proposed are as follows:

1. A Meaning Criterion
   For a lexical concept to count as distinct, it must contain additional meaning not apparent in any other senses associated with the linguistic unit in question.
2. A Concept Elaboration Criterion
   In addition, a distinct lexical concept may have been elaborated by unique or highly distinct patterns of conceptual projection. Concept elaboration may relate to how the lexical concept is modified (*a **short** time*); to the lexical concept(s) which serve as predicate (*The time **sped by***); or to an adverbial element (*The time went by **quickly***).

3. The Grammatical Criterion
A distinct lexical concept may also manifest unique or highly distinct *structural dependencies*. That is, it may occur in specific kinds of grammatical constructions. Hence, for a lexical concept to be distinct it may exhibit distinctive grammatical behaviour.

In order to illustrate how these criteria apply, consider examples (8) and (9).

(8) a. Time flies when you're having fun
b. Last night at the fair the time seemed to whiz by

(9) a. The time has arrived to finally tackle environmental pollution
b. A time will come when we'll have to say no to further deforestation of the Amazon region

In (8), the examples relate to one aspect of our experience of duration, in which time appears to be proceeding more quickly than usual. As we noted earlier, this psychologically real phenomenon is called 'temporal compression'. In contrast, the examples in (9) do not relate to our experience of duration, but our experience of discrete points in time, without regard for their duration ([MOMENT]). Hence, the expression *time* has quite distinct lexical concepts associated with it in each set of examples. This means that the two uses of *time* relate to distinct lexical concepts, on the basis of the Meaning Criterion.

In terms of the second criterion, the examples in (8) and (9) have distinct patterns of concept collocation (patterns of conventional imagery) associated with them. The [TEMPORAL COMPRESSION] lexical concept associated with *time* has been elaborated mainly in terms of manner of motion, specifically rapid motion. On the other hand, the [MOMENT] lexical concept in (9) has been elaborated in terms of motion that is terminal in nature, which is therefore oriented with respect to a specific reference point ([NOW]).

In terms of the third criterion, which relates to the grammatical realisation of distinct lexical concepts, observe that the [TEMPORAL COMPRESSION] lexical concept is encoded by a mass noun, one diagnostic of which is that *time* cannot take the singular indefinite article (*a*), as shown in (10).

(10) *A time raced by

In contrast, the [MOMENT] lexical concept is encoded by a count noun, and can co-occur with the indefinite article:

(11) A time will come when we'll finally have to address global warming

The fact that the two lexical concepts for *time* pattern differently in terms of grammatical behaviour means that they are also distinct lexical concepts according to the third criterion. Taken together, these three criteria provide persuasive evidence for the view that we are dealing with two distinct lexical concepts for *time*.

An important aspect of our theory of lexical representation is that lexical concepts are associated with larger knowledge structures. We follow Langacker in assuming that linguistic units such as words constitute 'points of access' to encyclopaedic knowledge. Thus, although we have been speaking thus far as if

linguistic units constitute conventional pairings of form associated with a discrete identifiable 'meaning' or lexical concept, in fact, lexical concepts should more accurately be thought of in terms of a larger knowledge complex with respect to which they are relativised. That is, a lexical concept is not itself a meaning. Meaning emerges in interaction with the linguistic and extra-linguistic context in which it is embedded (see Evans 2005b for detailed discussion). The understanding of *time* as a 'moment', for example, conventionally emerges in the collocation with language expressing also deictic motion (*come*). We return to this topic in section 3.4.

A lexical concept serves to designate or *highlight* a substructure within a larger knowledge structure, what we refer to as a *cognitive model* (roughly equivalent to Langacker's notion of *base*).

For instance, the most salient lexical concept conventionally associated with the form 'leg' is relativised with respect to a cognitive model concerning a physical entity. The cognitive model selected, e.g., HORSE, HUMAN BEING or CHAIR will determine the nature of the lexical concept. This phenomenon, in which the cognitive model determines the lexical concept is termed *background-dependent framing* (Barsalou 1999).

The point is that a lexical concept cannot be understood apart from the cognitive model(s) with respect to which it is understood and to which it provides conceptual *access* (Evans 2005b).

3.2 Conceptual projection

Conceptual projection is a general cognitive operation in which structure from one lexical concept is applied to a novel context. Expressions which require projection in order to be understood often have a particularly striking feel to them; they are surprising, insightful, or otherwise 'affectively charged'. However, this does not have to be the case. Conceptual projection is also involved in gradual processes of meaning change. We will first explicate the role of projection in such gradual processes before turning to more figurative cases of conceptual projection.

Early accounts of regularities in semantic change in both Cognitive Linguistics, the 'school' of linguistics which informs our perspective, and by scholars working in the emerging framework of grammaticalisation theory argued that conceptual metaphors provided the key mechanism which facilitated 'sense-extensions' (e.g., Lakoff 1987; Sweetser 1988). However, the problem with relying on conceptual metaphors as a mechanism for semantic change is that this predicts discontinuous change (Heine, Claudi, and Huennemeyer 1991; Traugott and Dasher 2002). Regular semantic change in terms of sense-extension seldom appears to be discontinuous, but rather appears to emerge along a continuum, resulting ultimately in the emergence of a new coded meaning (Traugott and Dasher 2002).

Consider the examples in (12) (adapted from Heine, Claudi, and Huennemeyer 1991, p. 70).

(12) a. Helen is going to town.
b. Fred: Are you going to the library?
Helen: No, I'm going to eat.
c. Fred is going to do his very best to make Helen happy
d. It is going to rain

As Heine et al. observe, while *be going to* in (12a) has, in our terms, an [ALLATIVE] lexical concept associated with it, and *be going to* in (16d) encodes a purely [FUTURE] lexical concept, the examples in (12b) and (12c) are intermediate between these two lexical concepts. For example, Helen's use of *be going to* in (16b) encodes what Heine et al., call an [INTENTION] lexical concept, with a *nuance* of [PREDICTION]; they also suggest that there is a 'relic' of the spatial ([ALLATIVE]) meaning in examples like this. This contrasts with (12c) which encodes [INTENTION] and [PREDICTION], but no spatial ([ALLATIVE]) lexical concept is apparent in this example. Examples like (12b) and (12c) are potentially problematic for a conceptual metaphor account because they illustrate that grammaticalisation involves a continuum of meanings rather than a clear-cut semantic shift from one 'domain' (Space) to another (Time).

Such continuous change can be viewed as the gradual decontextualisation (Langacker 1987) of a new lexical concept in a usage-driven process. Traugott and Dasher (2002) argue that many, perhaps most, of the regular sense-extensions affecting linguistic units arise from a usage-based process, in which invited inferences become generalised before becoming conventionalised as coded meanings. This process occurs by virtue of situated (or invited) inferences becoming 'detached' from their context of use. Through a process of reanalysis, referred to in earlier work as *pragmatic strengthening* (Hopper and Traugott 1993; Traugott 1989), the situated inference can become strengthened, such that it is analysed by the language user as constituting a meaning independent from the context which gave rise to it.

This process of the decontextualisation of new lexical concepts associated with a particular form can be traced by looking at communicative "bridging contexts" (Evans and Wilkins 2000). Bridging contexts allow two interpretations, and, crucially, do not hinder communication. This follows as if the speaker intends meaning *A* but the listener understands meaning *B*, the two meanings are functionally equivalent in the bridging context. Helen's answer in (12b) is a clear example of such a context: The expression 'going to' might be intended in a spatial ([ALLATIVE]) sense, but it can well be understood to express an 'intention'. Systematic ambiguities in bridging contexts thus lead to a lexical concept – in this case [INTENTION] – being newly associated with the linguistic form.

The process which facilitates this reanalysis in such bridging contexts is conceptual projection. The speaker projects a particular lexical concept into a novel utterance context. That is, the [ALLATIVE] lexical concept is being used in a new way which thus gives rise to ambiguity. Due to the ambiguity of the lexical concept in the novel context in which it is embedded it is analysed by the hearer in a way which is subtely at odds with the communicative intention of the speaker. This process of reanalysis is crucially driven by communication, i.e. by the pragmatic process of inferencing.

Examples of conceptual projection which have a more strikingly figurative feel to them often do so because they are intimately linked to the overt intentions and the 'point of view' of the speaker (Simpson 1993; Zinken 2004a, 2004b). An example of such a case of conceptual projection is the use of the term *frankenfood* to describe genetically-modified food in a range of British discourses in the 1990s (Hellsten 2003; Zinken, Hellsten, and Nerlich To appear). This term gained momentum in the British media from the mid 1990s following the US bid to export genetically modified crops and food products to Europe. This compound is a formal blend, involving the clipped form *franken* from *Frankenstein* with the lexical item *food*. In so far as this form was relatively well-used during the second half of the 1990s in British media

debates on GM-food products, the lexical concept of [GM FOOD] can be said to have been elaborated in terms of the lexical concept of aberrant and unnatural man-made creation, as encoded by the clipped form from *Frankenstein*.

Crucially, the compound *frankenfood* originated with publications associated with environmental groups such as Friends of the Earth, which were hostile to GM-foods. *Frankenfood* serves as a negative way of framing GM-foods, highlighting the perceived aberrant nature and potentially dangerous consequences of modifying produce intended for human consumption. This projection therefore carries with it a very clear point of view.

The lexical concept *Frankenstein* clipped into *frankenfood* clearly relates to cultural knowledge: the extensive film and literary tradition originating in Mary Shelley's gothic novel, first published in 1818, in which a scientist named Frankenstein, in an attempt to create life from human body parts, creates a monster. The projection of knowledge relating to a culturally specific text onto a contested topic is not at all rare. Indeed, knowledge of culture-specific texts and narratives seems to be the preferred basis for conceptual projections that bring with them strong evaluations (Zinken 2003). A quantitative analysis of a corpus of 1008 metaphors in context showed that 'intertextual' projections, i.e., projections from knowledge of a culture-specific text or narrative, had a higher ratio than other types of projections in the most salient parts of the article (Van Dijk 1985; Zinken 2002), namely the introduction, first and last paragraph, and the text underneath pictures. This shows that novel projections are firmly routed in the point of view and context of the speaker.

However, for a particular elaboration, due to conceptual projection, to have an impact on concept collocation, i.e., the long-term process of conceptual development, the elaboration provided by a novel projection must be taken up and repeated. *Frankenfood* has not become the conventional expression for genetically modified food in the English language at large, because it expresses a very specific point of view, that of an anti-GM-food campaigner. One of the communicative constraints a successful projection must satisfy is not to be too contentious. A successful projection must be able to take the step from making sense to a particular individual, or group of individuals, in a particular situation with a particular communicative intention, to making sense to most speakers in many different, but similar situations.

In this section we have attempted to provide a sense of the scope of conceptual projection in the formation of conceptions, and thus the dynamics of meaning. Conceptual projection provides novel conceptions. It does so by elaborating clearly delineated lexical concepts in novel ways, or by projecting structure onto novel utterance contexts, which can lead to ambiguities, and thus the formation of new lexical concepts. The innovations which result can be intentional, as in the case of *frankenfood*. Alternatively, they can be unintended innovations, as in the case of the INTENTIONAL and the FUTURE lexical concepts associated with the form *going to*. In as far as such innovation is as central to the linguistic construction of meaning as convention, conceptual projection is an everyday phenomenon, an aspect of the fundamental creativity and flexibility of language, and indeed language-users, who deploy linguistically encoded lexical concepts in the way they do.

3.3 Concept collocation

Conceptual projection is a pervasive phenomenon, because people constantly encounter novel situations that need to be described, responded to, evaluated, and so

on. Alternatively, language users may wish to frame a situation in a novel way, or, and this cannot be overstated, may wish simply to appear interesting or amusing, etc.

This perspective stands in stark contrast with the view presented by Lakoff and Johnson. From the standpoint of CMT the pervasiveness of metaphor results as thought is largely metaphorical. In contrast, for us, conceptual projection is pervasive because of the constant interplay of convention(alisation) and innovation. This means that we define conceptual projection as an act situated in historical time: a conception that requires projection for speakers (and listeners) in one generation, can be conventional and thus not require projection in the next generation.

Conventional ways of presenting a familiar 'meaning' we refer to as *concept collocation*. For instance, *time* has a [DURATION] lexical concept associated with it. The conventional way in which a greater period of duration is encoded linguistically is by use of the lexical concept encoded by the form *long*, rather than other possibilities including *great*, *large*, *big*, etc. In other words, *a long time* represents the conventional way of *perspectivising* that aspect of the lexical concept of [DURATION] associated with *time* that the language user is concerned with. In other words, *a long time* constitutes a concept collocation that provides a conventionally established means of prompting for a conception relating to an assessment of extended temporal magnitude. Similarly, *short* encodes a lexical concept which also serves to perspectivise the [DURATION] lexical concept for *time*. It does so by providing a conception relating to an assessment of lesser temporal magnitude, e.g., *a short time*.

In the conceptual metaphor tradition, scholars have typically assumed that the existence of examples such as '*a long time*' reveals the spatialisation of time, in the sense that we access temporal concepts via the domain of Space. It is assumed in CMT that the linguistic item *long* always relates to physical length, which facilitates conceptualising the domain of Time 'in terms of' Space. This view of access via spatial domains presupposes that we do not perceive time directly, but it is always conceptualised via more directly perceived experiences. Yet, as Evans (2004a) shows, based on a survey of the temporal cognition literature from cognitive science, duration is a real, directly perceived experience. The cross-linguistically common use of spatial markers to express temporal concepts might therefore be better explained in communicative terms: visually perceptible objects (which can be measured as 'long' or 'short') are part of the interactional space and are therefore intersubjectively accessible to take on sign-functions, which then become extended in the gradual processes of conceptual projection outlined above.

Talk of 'a long time', of a time that is 'coming' or that has 'gone by quickly' does not necessarily require conceptual projection from Space to Time. Our lexical concept based account, which focuses on the conceptual structures conventionally prompted for by linguistic units posits that, for example, *long*, like other linguistic units, has several coded meanings associated with it. In addition to the [EXTENDED IN HORIZONTAL SPACE] lexical concept, *long* also has a conventional [EXTENDED IN TIME] lexical concept associated with it. In the context of talk about *time*, it is this [EXTENDED IN TIME] lexical concept that is prompted for, and which conventionally serves to perspectivise the [DURATION] lexical concept encoded by *time*. Conceptual metaphor theorists who interpret this collocation in terms of the 'spatialisation' of time are in fact appealing to the (possibly) more entrenched lexical concept relating to physical space which can 'interfere'with the temporal 'meaning' of *long*.

However, for conventional expressions, the question is not how, for example, the spatial meaning of *long* is projected onto that of *time*. Rather, the question concerns how *long* has derived a temporal lexical concept conventionally associated

with it. The reasoning that [EXTENSION IN TIME] is indeed a lexical concept associated with *long* is supported by other nouns that *long* can modify, and thus the conceptual representations associated with such nouns that it can perspectivise. In addition to conventionally perspectivising the [DURATION] lexical concept for *time*, *long* can also be integrated with specific lexical concepts associated with other forms. Consider the following two examples:

(13) a. a long book
b. a long kiss

A *long book* is a book which takes a 'long' time to read, rather than an 'oversize' book, for which we have the term *oversize book*, i.e., a book which is longer than some norm along the horizontal (and vertical) axis. Equally, a *long kiss* is not a kiss which is extended in space, whatever that might mean, but rather a kiss which is held for an extended duration.

The fact that a number of lexical concepts associated with a range of distinct forms can be integrated with the [EXTENDED IN TIME] lexical concept associated with *long* suggests that this lexical concept is indeed a conventional meaning associated with this lexical item.

What we are saying is that the basis for understanding the linguistic unit which we might represent as [*long*/EXTENDED IN TIME], has synchronically little to do with physical measurement, which is a distinct linguistic unit: [*long*/EXTENDED IN HORIZONTAL SPACE]. Nevertheless, these two linguistic units share the same form, *long*, and, intuitively, appear to be related. Thus, we might say they are related by a polysemy relation. As the [EXTENDED IN HORIZONTAL SPACE] lexical concept appears to have been the historically earlier of the two, we will assume that the [EXTENDED IN TIME] lexical concept has become derived in a process of sense-extension, which involves conceptual projection, as described in the previous section with the example 'going to'.

In the case of *long*, the relevant bridging context is communication about motion events. A salient context of use for *long* with its [EXTENSION IN HORIZONTAL SPACE] meaning relates to salient and humanly-relevant events such as journeys. We can describe journeys in terms of their length, measured in miles or kilometres, for instance. However, journey length correlates in experience with duration, the time taken to complete a particular journey. That is, a 'long' journey, in terms of physical length correlates with an extended period of time, while a 'short' journey correlates with a reduced period of time. In contexts of use in which *long* was used with a spatial meaning, this correlation means that interpretations of temporal extensions will often be functionally equivalent (as when I say "*that was a long way!*"). We suggest that the [EXTENDED IN TIME] lexical concept associated with *long* has emerged through this situated implicature having undergone pragmatic strengthening such that the temporal meaning has become 'detached' from the contexts of use which gave rise to it.

In summary, we claim that conceptual projection does come into the picture when one tries to explain conventional figurative patterns, such as the use of spatial markers in talking about time. However, conceptual projection is relevant here as a historical phenomenon: a particular temporal concept has been elaborated in terms of a particular spatial concept by conceptual projection *over a certain period of socio-historical time*. Once the temporal concept has become conventionally associated with the respective linguistic form, projection is no longer required for comprehension or production. The expression (e.g., *long*) will feel figurative to a certain degree as long

as the linguistic form also has the 'original' lexical concept associated with it, in this case [EXTENSION IN SPACE].

3.4 Conceptual projection and cognitive models

So far, we have argued that conceptual projection happens in a very 'punctual' way: knowledge associated with a particular linguistic form is projected onto a novel utterance context, motivated, at least originally, by a particular communicative goal, as in the example of *frankenfood*. However, how can we explain 'regular' *patterns* of elaboration? The development of the theoretical construct of 'conceptual metaphor' was supposed to account for the fact that it is conventionally felicitous to say not only that someone *attacked* my arguments, but also that I *defended* my claims, and in the end *won* the argument. Do such coherent patterns not require us to assume that there is a general mapping – ARGUMENT IS WAR – which lies 'behind' such utterances? We will argue in this section that large-scale models do indeed play a role in the elaboration of concepts, but that the elaboration of patterns of figurative language is a process which unfolds in socio-historical time between speakers, rather than a constituting a generalised pattern which is 'licensed' by virtue of 'underlying' conceptual metaphors.

We have so far focussed on the level of the lexical concept in our discussion of conceptual projection. However, the conceptions that projection provides are not 'in' the lexical concepts. Indeed, lexical concepts should not be understood as 'meanings'. Meaning emerges in situated language use, i.e. in an utterance context. The importance of context in the understanding of conceptual projection has been stressed by Stern (2000). Stern asks us to imagine a scenario in which Shakespeare's Romeo and Juliet actually existed. In such a scenario Romeo might utter the following:

(29) Juliet is the sun

According to Stern the 'metaphorical' interpretation of this utterance might include the following: "Juliet is exemplary and peerless and/or that she is worthy of adoration, and/or that he cannot live without her nourishing attention." (Stern 2000, p. 1) . But how does this interpretation arise? How do we choose the right lexical concept associated with *sun* to arrive at the intended conception of Juliet? The linguistic context, in terms of the specific selection of lexical concepts which appear in a given utterance, influences this process (Evans 2005b).

Lexical concepts provide *access sites* to *cognitive models*. Cognitive models are larger-scale knowledge structures which are non-linguistic in nature (see Evans 2005b). While cognitive models can be conceptual entities in the individual mind, such as the context models in traditional psycholinguistics (van Dijk and Kintsch 1983), they need not be. Relevant cognitive models can also be 'distributed' across the situation and be embodied, for example, in the material surroundings (Sinha To appear). However, at this point we want to stress that lexical concepts can never provide meaning without at least a minimal context in the individual's conceptual system.

In order to understand what it means for Romeo to say that 'Juliet is the sun', we need to relate the form *sun* to a cognitive model. A possible candidate is a lexical concept that highlights an entity in a cognitive model involving the celestial spheres and the Earth's day/night and seaonal cycle. Without the sun there is no light, and

when the Earth moves away from the sun, the seasons become colder. This lexical concept associated with sun, which we might term [NOURISHING SUN], provides access to a cognitive model which serves to provide a novel conception of Juliet. In other words, the lexical concept selected allows us to access a richly detailed encyclopaedic characterisation relating to the sun and its 'nourishing' function in sustaining life, etc. Thus, access to a cognitive model afforded by projecting a particular lexical concept facilitates the formation of a conception, which powerfully illustrates the importance that Romeo, upon producing such an utterance, wishes the hearer to understand he attributes to Juliet.[2]

To further illustrate the importance of the notion of cognitive models with respect to which lexical concepts are relativised, consider the following figurative use of *the sun* also provided by Stern:

(30) Achilles is the sun (Stern 2000, p. 11)

While the sun is employed here again, its meaning and its function in the conception which arises is distinct from the Juliet example in (29). A possible interpretation in (30) draws upon the context of Homer's Iliad, a war epic in which Achilles is a ferocious and skilled Greek warrior. The interaction (Black 1993 [1979]) between our encyclopaedic knowledge associated with the sun and with Achilles serves to perspectivise Achilles in terms of someone who is capable of what Stern describes as 'devastating anger or brute force'. This is the result, in part, of the lexical concept encoded by 'sun' which provides access to a cognitive model in which the sun gives rise to effects such as drought and harvest failure, which can lead to famine and death, and can cause pain due to overexposure to heat. However, the conception provided by the utterance is also dependent upon what we know about Achilles, and the context in which we find him, waging war on the ultimately hapless Trojans. That is, by virtue of changing the subject, we have a markedly distinct conception from the previous example involving Juliet. In other words, novel conceptions are in part a consequence of the hearer *selecting* the appropriate lexical concept (projected by the speaker), which is a consequence of the interaction between the projected lexical concepts. Once selected, lexical concepts provide access to the cognitive models with respect to which they are relativised, contributing to the formation of a conception (see Evans 2005b for details). Thus, the linguistic context onto which any given lexical concept is projected plays a crcuial role in language understand and meaning-construction.

Conceptual projection involving the nominal predicate construction ('X is Y') is particularly susceptible to linguistic context as it serves to ascribe a particular 'state' to the subject. The conception which arises is in large measure determined by the interaction between the relevant dimensions of the cognitive models which are accessed by the lexical concepts in question. For instance, while Achilles is understood with respect to the cognitive model of GREEK WARRIOR as portrayed in the Iliad, Juliet is understood with respect to the cognitive model of DOOMED LOVE RELATIONSHIP which unites her and Romeo in the play-universe dominated by the family feud between the Montagues and Capulets.

[2] Of course, many details involved in the meaning-construction of such a conception are necessarily omitted here. In particular, for lack of space we haven't considered the role of the nominal predicate construction, which crucially contributes to integration of the projection of the lexical concept [NOURISHING SUN] onto this novel context in order to produce the conception which arises. For an overview of some of the complexity involved in meaning-construction see Evans (2005b).

With this notion of the interaction between lexical concepts (described in terms of *perspectivisation* and *adjustment* in Evans (2005b)), and access provided by lexical concepts to cognitive models in the emergence of a conception, we can now turn to the question: how do conventional patterns of figurative language develop? We suggest that such patterns emerge from the very processes of communication. Initially, a *single* projection relating to a particular cognitive model must be successful. In order to become conventional, the projection in the speaker's mind must find an expression in language; the projection this figurative expression suggests to them must 'resonate' for a sufficient number of hearers; and they must repeat the expression. In other words, the initially novel projection must enter into what Sperber (1996) calls the "epidemiology of representations".

Subsequently, *other* projections relating to the *same* cognitive model will be used – and repeated. The motivation for these new projections relating to the same cognitive model is not due to the antecedent existence of a general mapping, a 'conceptual metaphor'. On the contrary, the impulse lies in the very popularity of the initial projection that has become habitual, i.e. has become a *discourse metaphor* (Zinken, Hellsten, and Nerlich To appear). The speakers' drive towards innovation then leads to the elaboration of a *discourse scenario* (Musolff 2004).

A well-documented example is the history of the conceptual projection relating to the notion of the "common European House", brought into European public discourses by Mikhail Gorbachev in the mid-1980s (Chilton and Ilyin 1993; Zinken 2002). Gorbachev's talk of a "common European house" was received enthusiastically in several European discourse communities, with the projection exhibited having particularly strong *uptake* in German public discourse. According to our view, Gorbachev had a rather specific idea in mind when he first decided to employ this key-phrase into his rhetoric, i.e., we would expect that he projected structure from a particular lexical concept associated with the Russian form *dom* ('house') onto a lexical concept associated with *Europe*, rather than establishing a general mapping between entire conceptual domains called EUROPE and HOUSE. While we can't look directly into the former first secretary's mind, however, the apparent mismatches in the subsequent Russian and German rhetoric on the topic (Chilton and Ilyin 1993) suggest that this assumption is correct. While Gorbachev apparently intended to convey a sense of the common responsibility of the states of Europe for the "common house", German enthusiasts of the phrase mainly thought about the freedom of moving around with impugnity, as is possible within a "common house". In other words, Gorbachev seems to have projected a [CONTAINMENT] lexical concept associated with *dom*, which was entrenched in the context of public discourse through years of cold war rhetorics (Chilton 1996) onto a [GEOGRAPHICAL UNIT] lexical concept associated with *Europe* (Zinken and Bolotova 2001). The point he wanted to make with his phrase was that damage to the house-container of Europe was to be avoided for the sake of the safety of all the people on the continent. German receivers of the phrase, on the other hand, seem to have projected a FAMILY-HOME concept associated with the German *Haus* ('house/home') onto a [CULTURAL UNITY] lexical concept associated with *Europe*. Note that the German word *Haus* means both *house* and *home*. The conception arising from that projection was markedly different, and indeed it was the 'family home' that was often invoked in further elaborations of this scenario in German discourse (Chilton and Ilyin 1993). This can be interpreted as support for the language-specificity of imagining for speaking.

Once it had achieved uptake, Gorbachev's projection no longer 'belonged' to him. It was repeated again and again in the public discourses of several countries. The

'common house' of Europe thus became a discourse metaphor: a conventional *framing device* used in a particular range of discourses over a particular stretch of socio-historical time (Zinken, Hellsten, and Nerlich To appear).

We have claimed that the emergence of *patterns* of figurative language is driven by the very popularity of a particular projection, for example, a discourse metaphor. How does this happen?

With frequency-induced entrenchment, a figurative expression begins to lose its 'freshness' and impact. Using an economic analogy to model this regular process in language change, it could be said that the expression loses its worth due to inflation (Keller 1994). Expressing a *new* projection within the same cognitive model, e.g., talking about the *walls* that Europe needs, its *fundament* and its *exit doors* (Musolff 2000), is therefore beneficial for discourse participants from a communicative point of view in at least two respects: firstly, it allows them to show a little "extravagance", an important motivating factor for linguistic innovations in speakers' eternal quest for social success (Haspelmath 2000). Secondly, at the same time, this extravagance is in safe proximity to the known and established projection, so that it does not confuse the reader/hearer and remains enjoyable. In this sense, new projections relating to the same cognitive model as an established projection can be understood as cases of *optimal innovation* (Giora et al. 2004). It is this creativity and 'playfulness' of the human mind in interaction with the stabilising focus provided by habitual projections that leads to the development of discourse scenarios (Musolff 2004), and, in so far as these innovations are picked up, repeated, and diffused across contexts, to the emergence of figurative patterns in conventional language.

Examples like the concept elaboration of [EUROPE] in terms of 'a house' are very different from cases such as the development of a [FUTURE] lexical concept associated with the form *going to*, or the elaboration of the [TEMPORAL COMPRESSION] lexical concept associated with the form *fly by*. These cases differ in the intentionality of the projections involved, in the conscious control over elaborations, and in the contested nature of the conceptions arrived at. Conceptually independent lexical concepts – the things we talk and think about – such as time or Europe, differ in their conceptual evolution from conceptually more 'dependent' lexical concepts such as the semantic entities encoded by relations including verbs (*go*, *fly*) or adjectives (*long*). This is an aspect of the lexical concept theory of conceptual projection that we have not focussed on in this paper. What we hope to have shown here is that it is knowledge organised around *form-specific lexical concepts* that is used in conceptual projection in all cases.

4. Predictions for empirical research

Cognitive linguistics makes a commitment to attempting models that accommodate the results of empirical research in the other cognitive sciences. We therefore want to briefly illustrate that the lexical concept theory of conceptual projection accounts for the results of recent psycholinguistic research.

4.1. Conventional and novel figurative language

A fundamental aspect of our theory is that the production and comprehension of conventional expressions does not require conceptual projection, even though such expressions might have, upon reflection, a figurative feel to them that is due to interference of related lexical concepts. We have argued that conceptual projection gives rise, in typical cases, to strikingly novel conceptions. As soon as the conception

has become conventionally associated with a linguistic form (a lexical item or other linguistic construction), projection is no longer required.

If this is the case, then comprehension processes involved in understanding a conventional figurative expression (such as *a long time*) should differ from comprehension processes involved in understanding novel figurative expressions. Results of psycholinguistic studies suggest that this is the case. Gentner and Boronat (see Gentner et al. 2001) presented participants with brief stories rich in figurative expressions that were coherent with a general theme (e.g., 'A debate is a race' or 'A debate is a war'). Under one condition, the story's final sentence (e.g., "His skill left his opponent *far behind him* at the *finish line*") would be coherent with that theme, under the other condition it would not. The prediction was that if participants do indeed build what Genter refers to as *analogical models* during text comprehension, i.e., carry out a series of conceptual projections relating to the same cognitive model as they go along, the incoherent ending should slow down reading time. This prediction was borne out when the story used novel figurative expressions, such as "His strategy was to go *cruising through* the initial points [...]"). However, when the story used conventional figurative expressions (such as "Dan wanted to *guide* the audience *through* his debate speech"), reading time was unaffected by metaphorically incoherent endings.

This is precisely what our theory predicts. The lexical concept encoded by the form *guide*, for example, is conventionally used in the context of debates to talk about the 'discourse structuring' function one of the discourse participants can fulfil. This means that the 'spatial' meaning relating to one person, 'a guide', physically guiding others, as on a 'guided-tour' of a historic monument, does not need to be accessed at all. In fact, our theory predicts that this 'spatial' lexical concept should be more difficult to access in a context that prompts for the [DISCOURSE STRUCTURING] lexical concept. The term *cruise*, on the other hand, is not conventionally used in the context of debates, so that conceptual projection is necessary.

4.2. Space and time

McGlone and Harding (1998) have found that knowledge of spatial relations can be used to solve temporal relation tasks. Their experimental design takes as a starting point Clark's (1973) observation that the passing of time can be understood in terms of two general spatial models in English: the moving Ego model and the Moving Time model (see Evans 2004a for a review of these models). In the Moving Ego model, the passage of time is understood as 'our' motion over a landscape (as in "we're moving closer to the meeting"). In the Moving Time model, the passage of time is understood as the motion of events towards us (as in "the meeting is coming up"). Because of this, an expression like "the meeting originally scheduled for next Wednesday has been moved forward two days", is potentially ambiguous. If we use one of the spatial models for thinking about the passage of time, the meeting could now be on Monday or on Friday, depending on which model we use. McGlone and Harding (1998) found that participants tended to think that the meeting was moved to Monday when they had just read context sentences which suggested a Moving Time perspective. But they tended to think the meeting had been moved to Friday when they had just read context sentences which suggested a Moving Ego perspective. These results show that spatial models can impact on temporal reasoning.

Boroditsky (Boroditsky 2000) presented a range of studies, among them a replication of the McGlone and Harding study, which further support this conclusion.

Boroditsky interprets these results as supporting CMT, i.e. the view that 'time' is understood *via* the conceptual domain of 'space'. However, the CMT claim is stronger than what Boroditsky's findings actually support. CMT argues that cross-domain mappings are conceptual structures, so that every time when we access, for example, conceptual structures relating to our understanding of time, we in fact access conceptual structures relating to our understanding of space. This means that projection should be not only useful in some contexts, but it should be necessary whenever a metaphorically structured concept is accessed. However, Boroditsky's (2000) findings in fact contradict this assumption. She reasoned that if processing language about time necessarily activates the domain of space, then solving tasks about temporal relations should be a useful prime for solving tasks about spatial relations. However, this prediction of the metaphoric representation view of CMT was not supported. She further found that temporal primes are just as useful to participants for solving temporal tasks as spatial primes.

These results suggest that spatial knowledge can be useful in task-oriented thinking about temporal relations, but that it is not necessary to understand everyday temporal ideas. These findings are predicted by the lexical concept theory of conceptual projection that we advocate. The understanding of common temporal ideas conventionally expressed using language that feels figurative, such as "*Wednesday comes after Tuesday*", does not require us to access any spatial knowledge. However, spatial knowledge can be employed for analogical reasoning about time. As long as the lexical forms used to express temporal relations retain their spatial lexical concepts (as in the case of *come*), it will be easy to revive the projection from the spatial lexical concept associated with the linguistic form. It is in this sense that conventional figurative expressions are not properly described as 'dead' metaphors (e.g., Lakoff and Johnson 1980; Stern 2000).

Conclusion

We have presented in this article one aspect of our theory of conceptual projection in the context of language use, what we call imagining for speaking. We have argued that this form of conceptual projection, which we define as the application of conceptual structure to a novel context, is based in language-specific representations, specifically lexical concepts. Imagining for speaking acts upon symbolic structure, not on language-independent forms of conceptual structure developed through pre- or sub-symbolic experience.

We have argued that the lexical concept is an appropriate level for modelling conceptual projection. In imagining for speaking, knowledge associated with a particular lexical concept is applied to a novel context, and expressed in the form of a figurative expression. The continuous repetition, Croft (2000) uses the term *replication*, of the figurative expression in a discourse community leads to the elaboration of a new lexical concept that becomes associated with the form. A conception that is conventionally expressed in a way that feels figurative does not require projection. This feeling of figurativeness is a side effect of interference between the lexical concepts associated with one form. Projection and concept elaboration are thus socio-historically situated processes with respect to particular concepts. Coherent patterns of figurative language do not point to general and stable language-independent conceptual mappings (aka ‘conceptual metaphors’) in individual minds. These patterns emerge in a distributed fashion within a discourse community over a certain stretch of time.

This view of the relation between conventional patterns in language and novel figurative expressions does justice to the intuition about the creativity of novel metaphors (Kittay 1997). Whereas on the CMT view novel metaphors express established 'conceptual metaphors' (Lakoff 1993), on our view the relation between metaphor and creativity is more complex. Novel projections (such as *frankenfood*) establish conceptual links which are new in the speaker's conceptual system, and represent instances of 'transformatory creativity' (Boden 2004). Projections such as 'the *walls* of Europe' are instances of the creative elaboration of an emergent scenario.

The theory of conceptual projection sketched here joins up the dynamics of meaning with a theory of semantic structure: the theory of lexical concepts and cognitive models (Evans 2005b). It also re-integrates the study of figurative language with other usage-based theories in Cognitive Linguistics, such as Cognitive Grammar and Croft's (2000) Theory of Utterance Selection, as well as modern approaches to grammaticalisation and semantic change (e.g., Hopper and Traugott 2003; Traugott and Dasher 2002). It further integrates the cognitive study of figurative language with modern approaches to embodiment, which emphasise the situatedness and semiotic mediation of the embodiment of human cognition (Sinha in press; Zlatev 1997).

Metaphor has long had an existence at the periphery of the study of language and cognition. CMT has rectified this by putting metaphor on the centre stage of attention, and it has done so very successfully, as the surge of publications over the last two decades indicates. However, we have shown in this article that the account of metaphoric cognition offered by CMT runs into serious problems. We have proposed an approach that investigates conceptual projection, understood as linguistic innovation, in the context of its 'other half': linguistic convention.

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