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SPACE/MOTION/TIME MAPPINGS IN THE REPRESENTATION OF FUTURE TIME IN ENGLISH: THE ROLE OF CONTEXT

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ABSTRACT. ***Space/Motion/Time mappings in the representation of future time in English: the role of context.*** This paper addresses the expression of future time in English as related to a Conceptual Metaphor, THE FUTURE IS AHEAD, a construal lexicalized in numerous common utterances like *a bright future ahead of her*, or *the future ahead of me.* It is argued that Time is conceptualized as a complex metaphorical network whose SPACE/MOTION/TIME mappings are regulated by the subject's context-dependent perception of the temporal situation.

Keywords*: Space/Motion/Time construals, Future, Conceptual Metaphor, Context, English*

REZUMAT. ***Cartografierea Spațiu/Mișcare/Timp în reprezentarea timpului viitor în engleză***: rolul contextului. Ceste pagini privesc se îndreaptă spre expresia timpului viitor în engleză prin relaționare cu Metafora Conceptuală, VIITORUL ESTE ÎNAINTE, o construcție lexicalizată în numeroase exprimări uzuale, precum în engl. *a bright future ahead of her* sau *the future ahead of me*. Se susține că timpul este conceptualizat ca un demers metaforic complet cu o cartografiere Spațiu/Mișcare/Timp guvernată de percpeția cotextului dependent al subiectului.

Cuvinte cheie*: Constructe Spațiu/Mișcare/Timp, viitor, metaforă conceptuală, context, engleză.*

1. Introduction

In this paper I shall be discussing the role of Conceptual Metaphor (CM) in representing future time in English. I shall first briefly illustrate some

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major positions in the cognitive science literature on this topic. I shall then address some unresolved aspects of this issue. Finally, I shall suggest an interpretive inroad which can, in my opinion, synthetically encompass the various perspectives present in the literature.

The main point argued in this paper is that the linguistic organization of temporal concepts in the English language can be described through the lens of Conceptual Metaphor Theory (CMT), which holds that time is expressed in terms of space or, to put it another way, that temporal concepts are mapped onto spatial concepts. As summarized by Boroditsky & Ramscar (2002:185):

> How are people able to think about things they have never seen or touched? We demonstrate that abstract knowledge can be built analogically from more experience-based knowledge. People's understanding of the abstract domain of time, for example, is so intimately dependent on the more experience-based domain of space that when people make an air journey or wait in a lunch line, they also unwittingly (and dramatically) change their thinking about time**.** Further, our results suggest that it is not sensorimotor spatial experience per se that influences people's thinking about time, but rather people's representations of and thinking about their spatial experience.

As far as future time is concerned, it will be argued that utterances used to express the future in English are motivated by the Conceptual Metaphor (CM): THE FUTURE IS AHEAD. The fact that this CM may be deeply entrenched in the conceptualization of English speaking communities is suggested by the presence of fixed expressions or conventionalized utterances in English as: *A bright future* ***ahead*** or *The future* ***ahead of me.*** I shall attempt to show that, despite newly formulated proposals in the recent literature, the original insights by Lakoff & Johnson in their seminal 1980 study, *Metaphors We Live By,* remain a valid hypothetical framework for understanding how metaphorical conceptualizations of time are construed. I shall suggest that there may be a superordinate conceptual metaphor which, in frame-like fashion, regulates a complex and specific metaphorical network for future time, involving sub-metaphors, entailments and logical inferences. Furthermore when this metaphor frame is viewed in **context,**[2] from the viewpoint of the observer, and when it is related to the category of deixis, the apparent anomalies or gaps in current theorization signalled out in the literature can be accounted for.

[2] I am indebted to the Romanian psycholinguist, Tatania Slama-Cazacu, for her seminal work on the role of context in language use. Within the framework of this issue celebrating Romania, I would also like to pay homage to her memory.

2. Revisiting the literature

2.1. Perspectives from Psycholinguistics

Experimental research in cognitive science has pointed to the psycholinguistic relevance of a mental time line. What Clark (1973:50) referred to as "the spatial metaphor of time" is thought to emerge from human perception and sensory experience. As summarised in the study by de la Fuente et al. (2014:2):

> Human bodies have an intrinsic front, which determines how they move forward through space (literally) and through time (metaphorically). When people walk along a path, the points they have already passed lie behind them, and points they will travel to in the future lie ahead of them. If this universal pattern of body-world interaction is, indeed, responsible for an association between space and time in language and mind, it would be natural to assume that the future should be ahead and the past behind universally across languages and cultures.

The use of spatial language to represent time has been documented in most natural languages (Haspelmath 1997), although the linguistic forms and choices may vary across languages (cf. Núñez, & Sweester 2006) and cultures (de la Fuente et al. 2014). To briefly mention some of the vast, relevant literature in cognitive science, we can note that in child language research, it has been demonstrated that spatial concepts are acquired earlier than temporal concepts (Clark 1973), leading to assumptions that the processing of temporal expressions may depend on previous experience with spatial concepts and expressions (cf. Graf 2006). Casasanto (2010) have found that in children spatial information affects judgments about temporal concepts. Experimental studies with adults by Boroditsky (2000) and Casasanto & Boroditsky (2008), involving both linguistic and non-linguistic stimuli, have shown an asymmetrical link between space and time in cognitive processing. In other words, space seems to prime time but the reverse has not emerged experimentally. The claim of the spatial metaphor for time finds substantial support in experimental studies (cf. Boroditsky 2000) especially when implementing Reaction Time (RT) tasks (Toralbo, Santiago & Lupiáñez 2006) including RT tasks for the linguistic processing of whole sentences (Ulrich & Maienborn 2010). Moreover, the finding of a relation between space and time in experiments featuring low level psychophysical tasks would suggest that this link is a basic property of human cognition. For a comprehensive and detailed overview of this topic, see Ulrich et al. (2012).

Now, most of this experimental literature targets the presence of a left to right mental time line in the human cognitive system. However in natural languages, while there seems to be no linguistic evidence for a left-right axis, there is ample evidence for a front-back axis whereby *future* is mapped onto the *front* dimension and *past* onto the *back* dimension. Referring to studies by Radden (2003) and Haspelmath (1997), Ulrich et al. (2012:485) comment pertinently:

> For instance, while one frequently encounters expressions like *the day before Christmas*, no case of an expression *like *the day to the left of Christmas* is attested across the languages of the world.

Conversely they note that expressions like *the summer term lies behind us* or *the winter lies before us* are common. Thus their study designed a RT experimental task to verify the relevance of a front-back mental time line when processing whole sentences. They found significant values for the space-time link in sentence processing. Faster response times resulted for past-back and future-front mappings rather than the reverse orientations (Ulrich et al. 2012:494) pointing to the psycholinguistic relevance of a front-back axis for space-time mappings.

Research in cognitive science has also addressed the role of motion in relation to space-time metaphorical mappings (McGlone & Harding 1998, Boroditsky 2000). Initially, two perspectives emerged in these studies, an ego-moving perspective (*We are approaching Thanksgiving*) and a time-moving perspective (*Thanksgiving is approaching*). It became evident however that different ways of thinking about physical motion can result in variations in the construals of time (cf. for example Boroditsky & Ramscar 2012). Matlock, Ramscar & Boroditsky (2005) explored the role of fictive motion (*The tattoo runs along his spine*) on time/space mappings. The results of an experimental study by Matlock et al. (2011) addressing the link between time, space and abstract motion, i.e. motion through non-physical domains, point to the influence of motion on temporal reasoning.

These research findings lend support to the hypothesis that metaphorical understanding is grounded in our everyday physical and conceptual experiences. They also suggest the psychological reality of time/space/motion mappings in human cognition.

2.2. Perspectives from Cognitive Linguistics

2.2.1. The point that time is conceptualized in terms of movement through space has been amply demonstrated in Cognitive Linguistics and Conceptual Metaphor Theory (CMT). The systematic correspondences between

the domain of time and the domain of space have been the object of reflection among others by Lakoff & Johnson (1980), Evans (2004, 2010), Fillmore (1971), Gentner, Imai & Boroditsky (2002), Moore (2006, 2007), Radden (2003), Traugott (1974, 1975, 1978) and Yu (1998). These studies have all contributed in some way to the identification of the CM: TIME IS SPACE. However, a second domain is used to express time and that is MOTION, formulated in CMT as: TIME IS MOTION, or TIME IS A MOVING OBJECT, or TIME IS A MOVING ENTITY, or TIME PASSING IS MOTION (cf. also Ahrens & Hyang 2002). In fact, in Lakoff & Johnson (1980), we have an early suggestion of a mapping between TIME and MOTION as the metaphor TIME IS A MOVING OBJECT. This conceptualization is evident in the English proverb itself: *Time **flies***. It is also evident in the consistent use of motion verbs to describe the abstract notion of TIME as, for example, *Time **speeds** by, Time **whizzes** by, Time **lags** on*, *Time **drags** by*, *Time **creeps** along.* Lakoff (1993:218) assumes that our metaphorical understanding of time in terms of motion is biologically determined, when he explains:

> In our visual systems, we have detectors for motion and detectors for objects/locations. We do not have detectors for time (whatever that could mean). Thus, it makes good biological sense that time should be understood in terms of things and motion.

The connection between these three semantic domains, TIME, SPACE and MOTION, can be said to be represented conceptually as a cluster of metaphors, conflated in the CM: TIME IS MOVEMENT THROUGH SPACE.

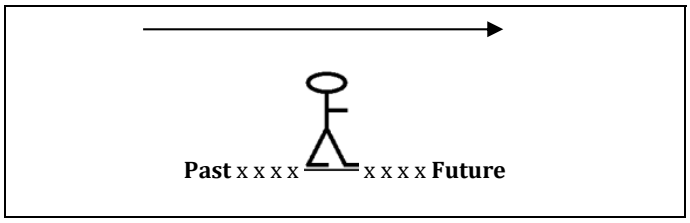
2.2.2. Now, the basic spatial dimension used to metaphorically represent time is an orientational construal, the **front-back** dimension: **future is front** while **past is back**. However, in their 1980 discussion on the metaphor relating to TIME, Lakoff & Johnson also remind us of the observation in Fillmore (1971) that in English we seem to have two contradictory **orientations** for time. The first orientational representation of time posits the future *in front* and the past *behind*, as in:

(1a) *In the weeks **ahead** of us.* (future)
(1b) *That's all **behind** us now.* (past)

In the second organization of time, the future is *behind* and the past is *in front* as in:

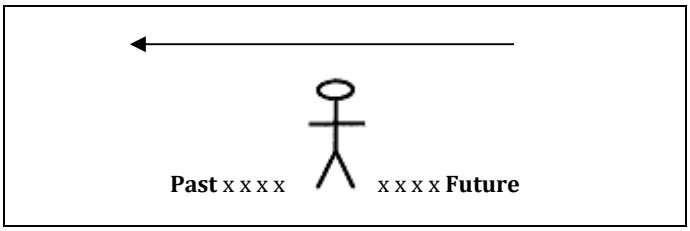
(2a) *In the **following** weeks …* (future)
(2b) *In the **preceding** weeks…* (past)

In the cognitive linguistic literature, this apparent contradiction has been explained as a double cognitive representation of time (cf. Gentner, Imai & Boroditsky 2002). In fact, to date, English has been most often described as presenting two systems of space-time mappings: the so-called MOVING-EGO metaphor and the counter MOVING-TIME metaphor. In the first system, the MOVING-EGO metaphor, the observer (EGO) moves along a time line; in the second system, the MOVING-TIME metaphor, it is time, or the event in time, which moves along the time line towards the observer (EGO). This explanation would account for the difference, for example, between the utterance *We are moving close to Christmas*, where the human subject (the EGO) moves towards the event in time (hence labelled the MOVING-EGO metaphor) and the utterance *Christmas is coming up close,* where TIME moves towards the EGO (hence labelled the MOVING-TIME metaphor). In Gentner, Imai & Boroditsky (2002), a graphical representation of this difference is given. For the MOVING-EGO conceptualization, it would seem that time is static and the observer moves as follows:



MOVING-EGO conceptualization
Adapted from Gentner, Imai & Boroditsky (2002)

For the TIME-MOVING conceptualization, on the other hand, the observer is stationary and the events move, as follows:



MOVING-TIME conceptualization
Adapted from Gentner, Imai & Boroditsky (2002)

Gentner, Imai & Boroditsky (2002) also note that this conceptual difference motivates different lexico-grammatical choices when representing time. As far as the future is concerned, in the MOVING-EGO metaphor, the future is mapped on to the **front** dimension, as in *He has a brilliant career **before** him;* on the other hand, in the MOVING-TIME metaphor, the future is mapped onto the **back** dimension as in *The meeting will be held **after** dinner.*

However, the basic spatial dimension used to metaphorically represent time through an orientational construal is still the front-back dimension: future is **front** while past is **back.** It is simply that the use of the set of words for the [FRONT] construal (*front, ahead, before, forward, towards*), or the set of words belonging to the [BACK] construal (*back, behind, following, past*) are determined by choice of one of the two variants (MOVING EGO or MOVING TIME).

2.2.3. Now, in recent studies by Moore (2006, 2007), this double-time metaphor is labelled differently as MOVING EGO vs. EGO-CENTERED MOVING TIME.

For the MOVING EGO metaphor, where the theoretical reference is Clark (1973), [but also the MOVING OBSERVER in Lakoff & Johnson (1999), Núñez (1999), Núñez, & Sweester (2006) Sweester (1988)], Moore (2007) suggests the following description:

SOURCE FRAME		TARGET FRAME
RELATIVE MOTION		EGO - CENTERED TIME
Space ahead of ego	→	Ego's future
Ego's "here"	→	Ego's "now"
Ego's arrival at a place	→	Occurrence of a time
Co-location	→	Simultaneity
Space behind ego	→	Ego's past
Change in degree of proximity	→	Change in degree of immediacy of the expected or remembered time

The MOVING EGO metaphor
(adapted from Moore 2007)

while for the EGO-CENTERED MOVING TIME metaphor, with again Clark (1973) as the theoretical reference [but also Lakoff & Johnson (1999), where the category is called "Moving Time"], the description given is the following:

SOURCE FRAME		TARGET FRAME
RELATIVE MOTION		EGO-CENTERED TIME
An entity moving toward Ego	→	A time in ego's future
Ego's here	→	Ego's "now"
Arrival of the entity at ego's location	→	Occurrence of a time
Co-location	→	Simultaneity
An entity moving away from the ego	→	A time in Ego's past
Change in degree of proximity	→	Change in degree of immediacy of the expected or remembered time

The EGO-CENTERED MOVING TIME metaphor
(adapted from Moore 2007)

The basic difference regards the perspective of the EGO, i.e. whether it moves or not. Moore (2007:116) explains:

> Moving Ego and Ego-centered Moving Time are similar in that they both map "here" onto "now" and have to do with the relation of future and past times to the present. Thus, they are both spoken of as ego-centered metaphors. The two metaphors contrast, however, in their metaphorical direction of motion. While Moving Ego depicts the present as metaphorically moving toward the future, Ego-centered Moving Time depicts the future as moving toward the present.

Thus, in adopting the label EGO-CENTERED TIME, Moore adds the perspective of the EGO even to the MOVING-TIME conceptualization. Moore then subsumes these two metaphors into a single frame which he terms "the ego-perspective metaphor". He then observes that this original double TIME metaphor does not account for expressions like the following:

(3a) *Christmas **comes before** Easter*
(3b) *Christmas **comes after** Easter,*

which encodes the idea of SEQUENCE and which, according to the literature, was formerly included in the MOVING TIME metaphor (cf. for example Clark 1973 and most subsequent theorizations). Moore (2006, 2007) hypothesizes instead the existence of a third conceptual metaphor, which he labels SEQUENCE IS RELATIVE POSITION ON A PATH and demonstrates that in this metaphor, TIME does not depend on the point of view which is observed. EGO is not involved. And this he labels "the ego-neutral perspective metaphor". Since the ego is not involved in the CM: SEQUENCE IS RELATIVE POSITION ON

A PATH, there is no reason to expect this metaphor to have the *future ahead /past behind* orientation of MOVING EGO or EGO-CENTERED MOVING TIME. By contrast, the motivation for mapping the entity that is *ahead* onto the earlier time comes from an observation about entities moving on a one-dimensional path: i.e., if two or more entities are moving single file on a path, the one that is ahead arrives first. Notice that this observation does not depend on the perspective from which the moving entities are viewed. The ego is absent from this conceptualization. Thus, Moore (2006, 2007) represents this metaphor SEQUENCE IS RELATIVE POSITION ON A PATH, as follows:

SOURCE FRAME		TARGET FRAME
ORDERED MOTION		**SUCCESSION**
Moving entities at different points on a (one-dimensional) path	→	Times in sequence
An entity that is ahead of another entity	→	A time that is earlier than another time
An entity that is behind another entity	→	A time that is later than another time

The SEQUENCE IS RELATIVE POSITION ON A PATH metaphor
(adapted from Moore 2006)

Moore (2006, 2007) suggests that rather than a single abstract target domain TIME, there exist two ways of metaphorizing a temporal concept: a metaphor encoding an **ego-specific perspective** (including both the previously theorized MOVING EGO and MOVING TIME metaphors) vs. a metaphor encoding an **ego-neutral** p**erspective** (SEQUENCE IS RELATIVE POSITION ON A PATH*)*. Therefore, with Moore's studies (2006, 2007), the taxonomic framework changes.

2.2.4. Moreover, compatible perhaps with the interpretation given by Moore (2006, 2007) of an ego-neutral perspective in the metaphoric construal of TIME, we can note the study by Núñez, Motz, & Teuscher (2006), who substitute for the role of a moving identity (whether EGO or TIME) the role of reference points in ascribing orientation, which they label **Time-RF**, which has no reference to the Ego and which they claim, on the basis of experimental evidence, has psychological reality. In their experiment, subjects were primed with Ego-free stimuli for the comprehension of sequence of events. The results suggested that people construe the meaning of *forward* on the basis of the *front–back* orientational dimension, i.e. on the spatial sequence itself, and not on a construal implying movement of the ego toward the event or vice versa, movement of the event towards the ego. However, it can be argued that

anteriority/posteriority is still conceptualized by human subjects according to their position in space, which is facing forward. This point is addressed by Núñez, Motz, & Teuscher (2006: 145) in their conclusion which holds that the Ego-free conceptual metaphor is nonetheless embodied. Using the example of non human living organisms, and also of objects, they state the following:

> Ascribing the same "orientation" to other nonliving moving objects that do not have heads, faces, or noses (such as a group of rocks sliding down the hill) is then a coherent natural extension of the inferential structure of such visual experiences. We claim that the Time-RP metaphor is a type of conceptual mapping that extends the inferential organization of this observational experience (which is ultimately bodily-grounded) to the realm of time. In this article we give experimental evidence of the psychological reality of such a conceptual metaphor.

2.2.5. Radden (2003) has also produced a rather articulated argument on time-space mappings. He first highlights the conceptual richness inherent in the spatial domain as a whole. For example, he notes a suggestion by Yu (1998: 111) that "up" and "front" have a common experiential basis:

> When we lie down on our stomach and crawl, we normally move in the direction of head rather than feet. So our heads become fronts just like the fronts of any moving objects, such as cars, trains, ships, planes, rockets, and so forth.

In Western cultures, Radden claims, the front-back orientation predominates in the representation of temporal scenes. The straight line, an open-ended horizontal axis, seems to be the most common framework for representing time as passing, and most concepts of time refer to this linear model. However, recalling related insights by Yu (1998) concerning Chinese, which conceptualizes time along a vertical axis with *up* representing earlier time and *down* representing later time, Radden (2003: 228) also introduces the vertical axis into the explanation of time concepts in English. He notes that Western cultures may also conceptualize earlier time as "up" and later time as "down". He explains:

> Yu (1998:112) mentions as a telling example the way a family tree is drawn. The older generations are at the top and described as ascendants, while the younger generation are at the bottom and described as descendants. In English, time may be seen as flowing down from the earlier time into the present, i.e., the past is up and the present as down…

This is evident in English in the examples, cited by Radden (2003: 228):

(4a) *These stories have been passed **down** from generation to generation*.
(4b) *This tradition has lasted **down** to the present day.*

and many others like:

(4c) *This event has been handed **down** to the present generation.*
(4d) *How does Aristotle affect philosophy **down** to the present?*
(4e) *From the earliest authentic records **down** to the present time…*

Radden (2003:228) then notes that "we should expect that, in this view, time continues flowing down beyond present time into the future. But it doesn't". He adds that we usually do not hear an utterance like "?*This tradition will last down into the future",* but we do hear the utterance, *This tradition will last into the future*. In other words, the lexicalization of [down] is absent. According to Radden (2003), for future time, English uses a different model in which the observer towers both above the future and the past. Future time is down and comes up to the observer's present as in (5a), from which it may go down again into the past as in (5b):

(5a) *The new year is coming **up.***
(5b) *This year went **down** in family history*.

and we could say that these examples, along with this proposal of a vertical axis, fit in with the construal [AHEAD] for future time, which could be suggested to encode precisely the construal [HEAD] and therefore the related semantic frames of [top] and [up].

This profile for time then can include a vertical axis. This model of vertical time, according to Radden (2003), is based on an anthropocentric view of the world with the observer occupying the highest position.

However, let us note the following figurative utterance often used to express lack of knowledge of future events:

(6) *That's up in the future.*

Rather than a temporal metaphor behind this use of the orientational prepositions *up* and *down*, Radden (2003) identifies a different metaphorization, one suggested by Lakoff & Johnson (1980:20) as representing KNOWN vs. UNKNOWN events. In fact, in Conceptual Metaphor Theory, UNKNOWN IS UP (*That's **up in the air**)* and KNOWN IS DOWN (*The matter is **settled***).

2.2.6. Now a significant contribution to our understanding of space/time metaphors has come from studies by Evans (2004, 2010). According to Evans (2010:644), first of all, "attention to the semantic complexity and communicative function of space-to-time metaphors has been insufficient". He continues:

> Only certain types of motion events can collocate with specific types of temporal concepts. Importantly, the various metaphors for TIME that have been proposed in the literature do not predict this fact.

In other words, Cognitive Linguistics has not adequately addressed other aspects related to the metaphorization of time like **complexity** and **salience**. For example, in the utterance *Christmas is approaching*, the lexeme [approaching], besides encoding forward movement, also activates the semantic trait of what Evans terms "**relative imminence**", i.e. how close the event is to the moment of enunciation.

The complexity inherent in utterances motivated by the TIME IS MOTION metaphor is highlighted in the various examples provided by Evans (2010):

(7a) *Christmas is **near.***
(7b) *Christmas is **some way off.***
(7c*) Christmas is **a long way off.***
(7d) *Christmas is **far ahead.***

Here, Time is conceptualized as a fixed point on a imaginary time-line conceptualized in terms of length. Length can be measured and it is mapped onto the spatial domain as **relative distance** and onto the temporal domain as **relative duration**. Evans (2010:644) claims that "There is also strong evidence that our knowledge of length forms part of our understanding of temporal duration."

Moreover, we must also be able to account for the fact that movement is often qualified according to the semantic trait of **velocity,** as in:

(8a) *Christmas is **rapidly** approaching.*
(8b) *Christmas is **taking an age** to arrive.*
(8c) *Christmas is coming up **fast.***

Thus, Evans (2010) invites us to consider the concept of "semantic affordance", which he intends as "an inference that is specific to a given lexical concept". Evans (2010:645) clarifies thus:

In other words, as the inferences just mentioned are specific to lexical forms, it is theoretically more accurate to assume that this aspect of meaning construction involves a bottom-up process: they arise due to activation of knowledge (i.e. semantic affordances) specific to the lexical concepts in question, rather than a top-down process of overarching conceptual metaphors.

Thus, Evans critiques the explanatory adequacy of Conceptual Metaphor Theory for the description of conceptualization of TIME.

3. The role of CONTEXT

We thus come to our basic research question which is: How can we explain these apparent discrepancies?

Evans (2010) convincingly argues that our experience of time results from internal, subjective responses to external sensory stimuli and that by imparting spatio-physical "image content" to a subjective response, we are able "objectify" our temporal experience. According to this view, our spatial understanding of time is not determined by biological needs, but by intersubjective, or communicative, needs**.** Experimental work has been done for example on the relation between affect and spatial metaphors of time. Margolies & Crawford (2008) found that participants who imagined a negative event were more likely to report that the event was approaching them, whereas those who imagined a positive event were more likely to report that they were approaching the event. Their experiments also showed that participants judge an event to be more positive if it is described from the ego-moving perspective than if it is described from the time-moving perspective.

Thus, the rationale behind the reflections which follow is that attention is to be paid to the situated quality of human conceptualization and the consequent dynamic characteristic of discourse determined by situation-specific variables and communicative purposes, a point made by the Romanian psycholinguist Tatania Slama-Cazacu, as far back as 1961. in her seminal study, *Dialogue et Contexte*. In other words, along with the fundamental properties of the human cognitive system, contextual constraints determine variation of the subject's perception, conceptualization and expression of communicative situations (cf. Slama-Cazacu 1975). Consequently, as far as temporal construals are concerned, the presence of differences in the linguistic system may be attributable to conceptual configurations determined by specific contextual variables

Let us try to explore this perspective by going back to some of the utterances used in the argumentations in cognitive linguistics (cf. especially Evans (2004, 2010).

(9a) *Christmas **comes before** Easter.*
(9b) *Christmas **comes after** Easter.*
(9c) *Easter **comes before** Christmas.*
(9d) *Easter **comes after** Christmas.*

(10a) *Christmas is **approaching.***
(10b) *We're **approaching** Christmas.*

(11a) *Christmas is **a long way off**.*
(11b) *We're **a long way off** to Christmas.*

(12a) *Christmas is **rapidly approaching**.*
(12b) *We're **rapidly approaching** Christmas.*

(13a) *Christmas is **down the road**.*
(13b) *We're moving **down the road** to Christmas.*

(14a) *Christmas is **coming up**.*
(14b) *We're **coming up** to Christmas.*

As far as the utterances in (9) are concerned, can we agree with Moore that they are assignable to the metaphor SEQUENCE IS RELATIVE POSITION ON A PATH and are therefore perspective-neutral? Perhaps we should answer negatively, because we can suggest that it is the subject's positioning in the context of the utterance which will determine the sequence of events, and therefore determine lexical choices of the front-back construal. In other words, let us consider, for example, the fact that temporal events are often seen as placed on a horizontal axis, the conventional calendar, which moves forward from January to December. Consequently, if the speaker is located at a specific temporal point, let us say, for example, November, which we can graphically represent as follows:

January February March April May June July August September October **November** December

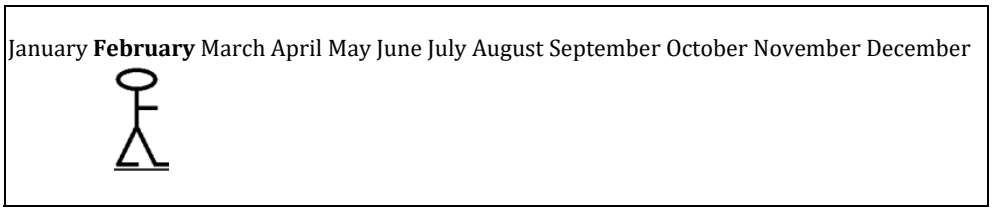
s/he will /say

(9a) *Christmas **comes before** Easter.*

-or -

(9d) *Easter **comes after** Christmas.*

If the speaker is located at another temporal point, let us say, for example, February, which we can graphically represent as follows:



s/he will say :

(9b) *Christmas **comes after** Easter.*

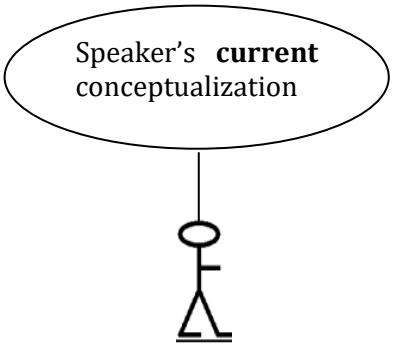
-or –

(9c) *Easter **comes before** Christmas.*

Thus, even if we accept the existence of a third metaphor SEQUENCE IS RELATIVE POSITION ON A PATH, we cannot deny its ego-perspective status. In context, the ego is always encoded in the representation

In this case, then, there would be no ego-neutral perspective in the conceptualization of time. In CONTEXT, all aspects of temporality are conceptualized from the vantage point of the ego. In Western culture, since, as emphasized by Radden (2003), time is viewed as a horizontal line, the future is always in front of the ego – whether formulated subjectively (where the observer [Ego] is included in the linguistic formulation), or objectively (where the observer [Ego] is not included in the linguistic formulation). Moreover, time is specified according **to relative distance,** if the TIME IS SPACE frame is highlighted, and according to **relative velocity,** if the TIME IS MOTION frame is highlighted. It is even further specified if other elements of the perspective structure are foregrounded, such as **imminence** or even **emotional value.**

In other words, these temporal utterances could be represented according to the speaker's CURRENT conceptualization:

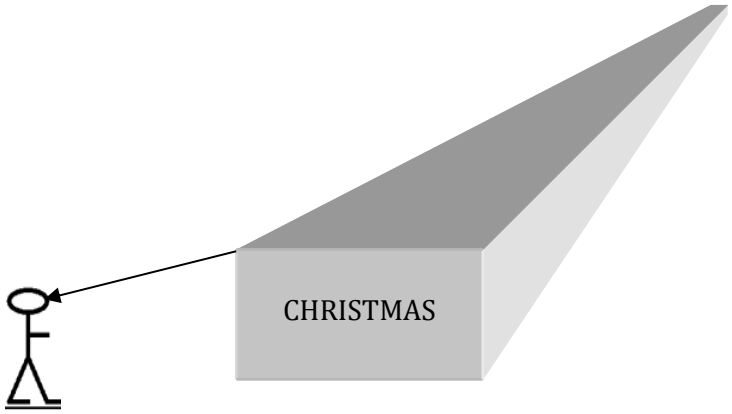


This would be the **deictic center** which organizes conceptualization.

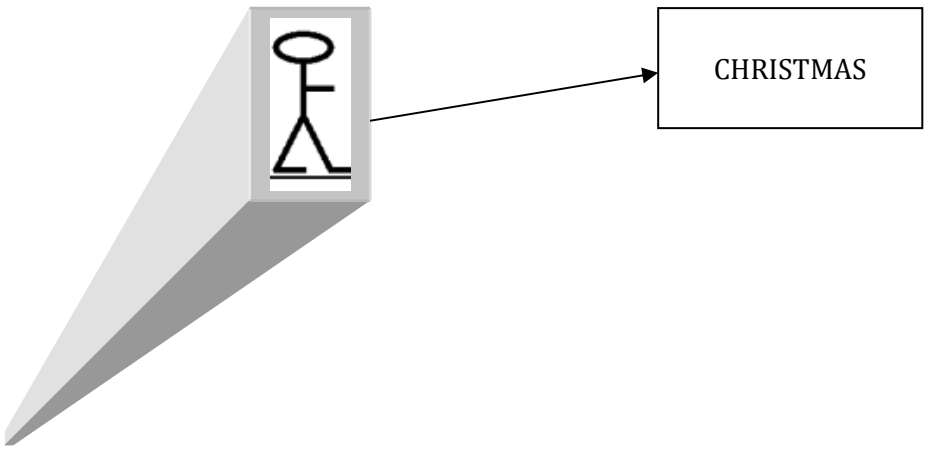
From this point of view, we are able to understand, for example, the linguistic difference behind the variants of a conceptual construal encoding **imminence,** as:

(10a) *Christmas is **approaching.***
(10b) *We're **approaching** Christmas*

The only difference between the two variant formulations in (10a) and (10b) lies in whether the event, or the ego (the observer), is highlighted, a difference which could be represented in this way:



for the MOVING-TIME variant (where the ego perspective is present but conceptualizes time as moving towards the subject), which will generate the utterance (10a) *Christmas is **approaching**,* and on the other hand, in the following way:



for the MOVING-EGO variant (where the ego perspective is present but conceptualizes the subject as moving), which will generate the utterance (10b) *We're* ***approaching*** *Christmas.*

Once the ego as deictic center is posited as the basis of the metaphoric conceptualization, it is possible to trace the differences back to a coherent metaphorical structure (not necessarily an "overarching metaphor", as Evans (2010) understandably questions) but to a logical framework based on a highly structured metaphorical map. For utterances (10a) *Christmas is* ***approaching*** and (10b) *We're* ***approaching*** *Christmas* then, the metaphorical map structuring conceptualization is basically the same and we can represent it as:

CM1 TIME IS SPACE
CM2 SPACE IS A CONTAINER
CM3 TIME IS MOTION
CM cluster TIME IS MOTION THROUGH SPACE
CM entailment FUTURE IS AHEAD
CM specificity THE FUTURE IS IMMINENT

where we have a hyponymic structure consisting of a superordinate metaphor TIME IS SPACE and sub-metaphors emerging, through logical inferences, from related clustering, entailments and specifications. This representation for the metaphorical structure, therefore, would also be able to take into account

lexical variations stemming from conceptual specifications, like **imminence** (*approaching*) or **proximity** (*close, far*, *very far*), or **velocity** (*rapidly, slowly*).

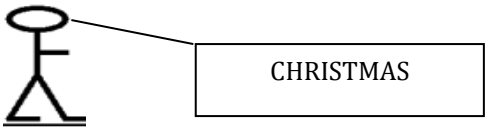
In a similar vein, then, the conceptual construal for both variants lexicalizing **proximity** (the CM:MOVING-TIME, as in (11a) *Christmas is* ***a long way off,*** and the CM: MOVING EGO as in (11b) *We're* ***a long way off*** *to Christmas* can be explained by the following metaphorical structure:

CM1 TIME IS SPACE
CM2 SPACE IS A CONTAINER
CM3 TIME IS MOTION
CM cluster TIME IS MOTION THROUGH SPACE
CM entailment THE FUTURE IS AHEAD
CM specificity THE FUTURE IS (**VERY FAR**) AHEAD

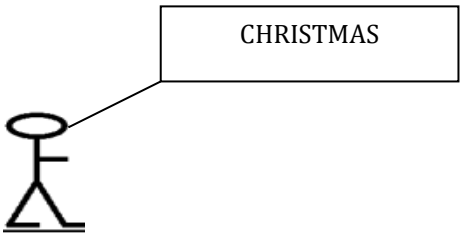
The conceptual construal for both variants lexicalizing **velocity** (CM: MOVING TIME, as in in (12a) *Christmas is* ***rapidly approaching,*** and CM: MOVING-EGO, as (12b) *We're* ***rapidly approaching*** *Christmas*) can be explained by the same basic metaphorical structure, with one differentiating conceptual specification, as described below:

CM1 TIME IS SPACE
CM2 SPACE IS A CONTAINER
CM3 TIME IS MOTION
CM cluster TIME IS MOTION THROUGH SPACE
CM entailment FUTURE IS AHEAD
CM specificity THE FUTURE IS (**FAST**) AHEAD

Furthermore, in order to account for the vertical axis (UP/DOWN) motivating many utterances for future time (as explained in section 2.2.5 above), by keeping in mind the ego as deictic center, we could simply recall the concept of perspective, i.e. the appearance (to the subject's eye) of objects according to their relative distance and positions. Thus, if the vantage point of the observer is not close to the object, it is perceived as smaller and lower; when the observer is situated close to the object of observation, the object appears bigger and higher up. Therefore, we could graphically represent the basic conceptual construal for both (13a) *Christmas is* ***down the road*** and (13b) *We're moving* ***down the road*** *to Christmas* as:



to which we could apply the same metaphorical map with the addition of the CM specificity: **THE FUTURE IS (NOT UP) AHEAD,** whereas the conceptual construal for both (14a) *Christmas is* ***coming up*** and (14b) *We're* ***coming up*** *to Christmas* could be represented as:



and would have the CM specificity: **THE FUTURE IS (UP) AHEAD.**

4. Discussion

This description then of time in English is accountable through the lens of the foundational premises of Lakoff & Johnson (1980) and Lakoff (1993), which include the following points:

1. the experientialist basis of conceptualization
2. embodied cognition and the ensuing egocentricity principle
3. the complexity but, none the same, systematicity and coherence of metaphorical structure, which implies the possibility of a hyponymic or network-like organization
4. the role of logical inferences
5. "highlighting" as a constraining effect on complexity, whereby aspects are selected for cognitive and consequently linguistic prominence
6. the canonical observer (ego) as deictic center of metaphoric conceptualization

If the basis of metaphoric conceptualization is experiential and if the human body is positioned in space as upright with eyes in front looking forward, and if one of the functions of the body is to move, then the ego moves **forward** to reach a new goal. Therefore, completed actions are **behind** the ego and non-completed actions are **in front** of the ego, who moves towards them. The ego is the deictic center and the ego moves forward through space.

Thus, we can assert the possibility that there exists a superordinate metaphor, TIME IS SPACE, which directs a network of metaphors including SPACE IS A CONTAINER and TIME IS MOTION, the combination of which yields TIME IS MOTION THROUGH SPACE. The other metaphors argued for in the literature, the so-called MOVING-TIME, MOVING-EGO and SEQUENCE METAPHORS, could be considered variants regulated by the perspective of the canonical observer, the deictic ego.

The conceptualization of time can be suggested therefore to be organized systematically and coherently in a closely-linked metaphorical web whose logical inferential structure (following an argumentative method used by Lakoff & Johnson 1980) can be said to be:

Space is three dimensional;
SPACE IS A CONTAINER;
The ego is in it and moves through it;
TIME IS MOTION and **TIME IS SPACE;**
Therefore, **TIME IS MOTION THROUGH SPACE;**
The ego is placed in space and time facing forward;
The ego moves forward through space and time along a one-dimensional horizontal axis,

which can be formulated according to the MOVING-EGO variant: THE EGO MOVES TOWARDS TIME, or specularly through the MOVING-TIME variant: TIME MOVES TOWARDS THE EGO.

As far as future time is concerned, for the MOVING-EGO variant, the metaphoric formulation is:

THE EGO MOVES THROUGH TIME TOWARDS THE FUTURE

or, specularly, for the MOVING-TIME variant:

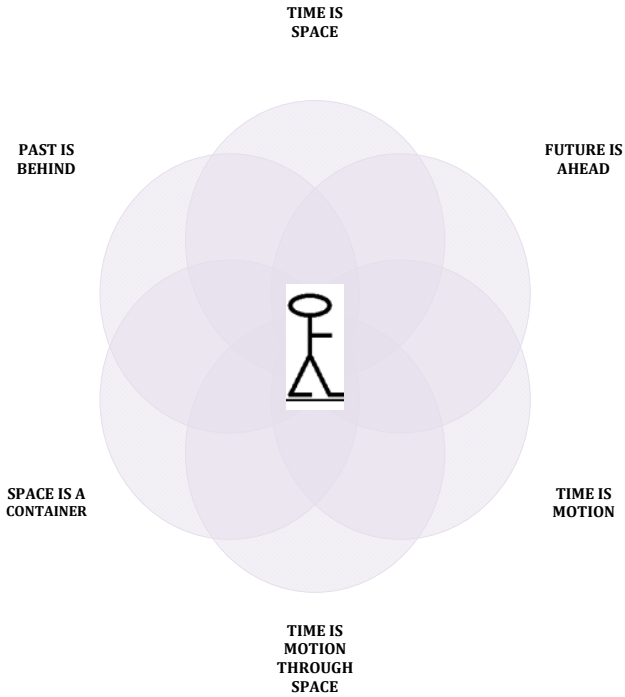
THE FUTURE MOVES THROUGH TIME TOWARDS THE EGO.

However, it should be emphasized that in this second variant, the ego nonetheless perceives virtual (non-completed) events in the direction of her/his position, **facing forward** – therefore, **ahead.**

In that way, Future is represented as a conceptual construal that could be labelled [AHEAD], encoding the spatial concepts of both [front] and [above]. The construal of the [HEAD] is itself the part of the orientational conceptualization of human corporeity, the head being *on top* and *above* everything else on the body. Since space is three-dimensional, objects are also perceived by the ego through a vantage point in space, a container; objects are

perceived as being *above* [up] or *below* [down] according to relative distance. FUTURE IS UP (if it is perceived in the spatial frame as close) and the FUTURE IS DOWN (if it is perceived in the spatial frame as far). Therefore, FUTURE is in front of the observer. Whether it is the observer, or the event, which moves, for Anglophone speakers the future is nevertheless always forward - *ahead* of the observer. This then is the construal **[AHEAD].**

Thus while accepting the position that the construal of TIME presents a complexity inadequately accounted for in the literature, we hold that such complexity can nonetheless be fitted into an organic, coherent metaphorical structure with one or more basic metaphors regulating hyponymically and interactively other metaphorical variations. In order to represent TIME as what Núñez & Cooperrider (2013:220) have called a "mosaic of construals", we can suggest a metaphorical network which contemplates a deictic center, understood as the current conceptualization of the ego-observer. This network would be dynamic and flexible, able to prime linguistic formulations according to the situation-specific perspectives in the current conceptualization of the speaker, as follows:



This would be the hypothesis offered for subsequent empirical/experimental investigation on the Conceptual Metaphor: **THE FUTURE IS AHEAD**.

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