

No Time Like the Present: A Cognitive Approach to Time Differentiation in Discourse

Marie Spruyt

Introduction

The term 'cognitive' is used in linguistics to refer to the perception that aspects of human experience and cognition are reflected in the structure and functioning of language. Langacker (1987a; 1987b; 1988) establishes a connection between research done since Fillmore (1968), Rosch (1973; 1975; 1978), and others like Johnson (1987), Lakoff (1987), Fauconnier (1983; 1985) and Givon (1979; 1982), by defining one of the main principles of cognitive grammar—meaning must be reduced to conceptualisation, which implies, *inter alia*, that the semantic structure of a language reflects our consciousness of a physical, social and language-related world. A semantic structure is therefore a conceptual structure that takes cognisance of the fact that language functions in a people directed world, so that one can expect to find signs thereof in the language system that one studies.

Image Schemas

The theory of image schemas within cognitive linguistics were formulated for the first time by Johnson (1987). Edelman (1989:109-148), a renowned neurologist, refers to Johnson's work as an explanation for the way in which we construe mental images, by the use of image schemas that are related to bodily attitudes in the organization of thought and language which are reflected as metaphors in language. To prove that image schemas are important in language use, Edelman refers to Johnson's (1987) study of propositional structures which can only be realised as a complex web of non-

propositional schematic structures based on human experience. We will therefore recognize objects, events and stories because we think in images schemas which are based on sensory and motor experience (Lakoff 1987; Johnson 1987; Talmy 1988; Turner 1991; 1996). The container image schema, for instance, allows us to recognize several objects as containers—not only bags, packets, cups, bottles, a valley, a drawer, rooms or houses, but also our bodies and our heads.

An event can be construed by using several combinations of image schemas as conceptual basis. Movement, for instance, can be construed in terms of a source-route-goal-schema, with linguistic units such as *go somewhere*, *come here*, or as a near-far-schema with units such as *far back in the past*, *near collapse*.

The container-schema with concepts such as *in/out/over/inside/outside* involve linguistic units such as *in discussion*, or *in tears*. In terms of this schema, time can be viewed as a container with three different compartments for what we experience *in* the present, what we remember *out* of the past, and our thoughts *on* what the future holds. The image scheme A PERSON MOVES ALONG A ROUTE TO A GOAL can similarly act anaphorically as basis to make time concepts more understandable—one can reflect *back* into the past or look *forward* to the future.

Turner (1996:150) compares time with a story that is projected in time and space, by means of which the experiencer will have a specific temporal focus and a specific temporal viewpoint. Because space has a visual basis and is experienced as concrete, it is commonly used to make time, which is more abstract, understandable. When we say that cycles in time repeat themselves, we use the visual image schema of a circle for our experience of time. We easily think of events restricted in time by using intrinsic spatial image schemas such as continuity, extension, discreteness, completeness, cycles or whole and part relations.

The theory of mental spaces (Turner 1996:87) makes it possible to make time as an abstract concept understandable by projecting it as a concrete spatial concept onto an abstract concept. By projecting the concrete concept from a *source* mental space onto a more abstract concept in a *target* mental space (the input spaces), a synthesis of the concepts is made in a third space, the *blended* space, as set out in Figure 1, which is a combination of both the target space and source space. The conceptual contents of the blended space represents the new insights that one acquires of the abstract concepts in the target space. However, it is not possible to blend two concepts without some

counterpart connections between them to guide the blending, and the abstract structure shared by input spaces resides in a generic space which indicates the counterpart connections between the input spaces:

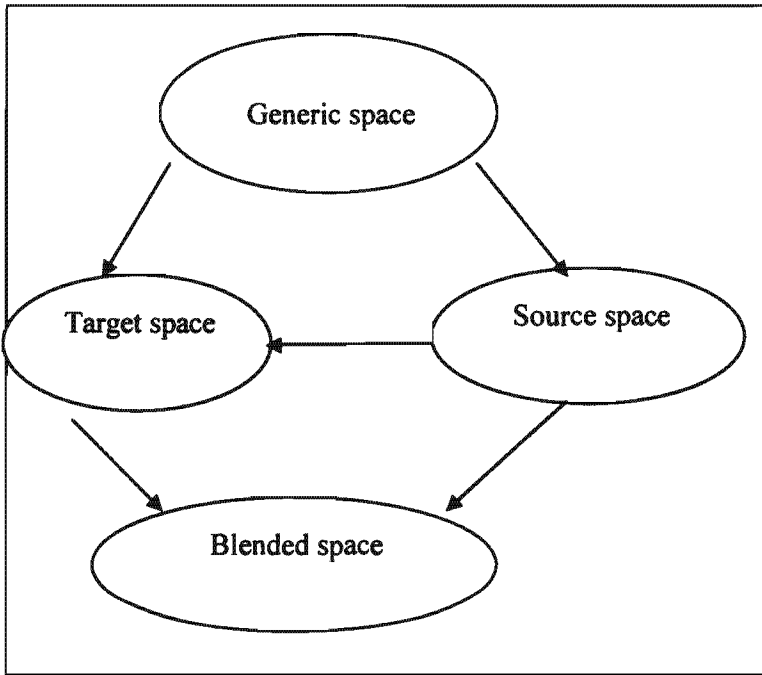


Figure 1: The Source, Target, Generic and Blended Spaces in Conceptual Blending

The Construction of Mental Spaces

A basic point of departure is the theory on the construction of mental spaces (Fauconnier 1985; Lakoff 1987; Langacker 1987a; 1987; 1990) which corresponds with understanding of a sentence within a context. These spaces can be pictures, beliefs, anticipations, stories, prepositional realities, and thematic or quantified domains of situations in time and space. Each space is a version of a logical, coherent situation or potential reality, where it is accepted that several propositions are true, that objects exist and that there are relations between objects (i.e. thematic roles like agent, patient, route, goal, etc.). The

interpretation of discourse depends on the construction of a complex configuration of hierarchically related spaces—as each sentence is processed in the discourse, the configuration of spaces are adapted, based on lexical and grammatical triggers in the sentence. This adapted configuration of spaces is extended pragmatically from background knowledge held in the form of image schemas within event frames.

Event Frames

The notion of event frames, as shown in Figure 2, is used in cognitive grammar to refer to conceptual elements which are combined when we refer to an event. Briefly put—we construct conceptual mental spaces about reality or potential reality; these mental spaces are extended by means of image schemas within event frames; within the event frames the participants in discourse share the same theme on aspects like time, place or occasion, so that effective communication can take place:

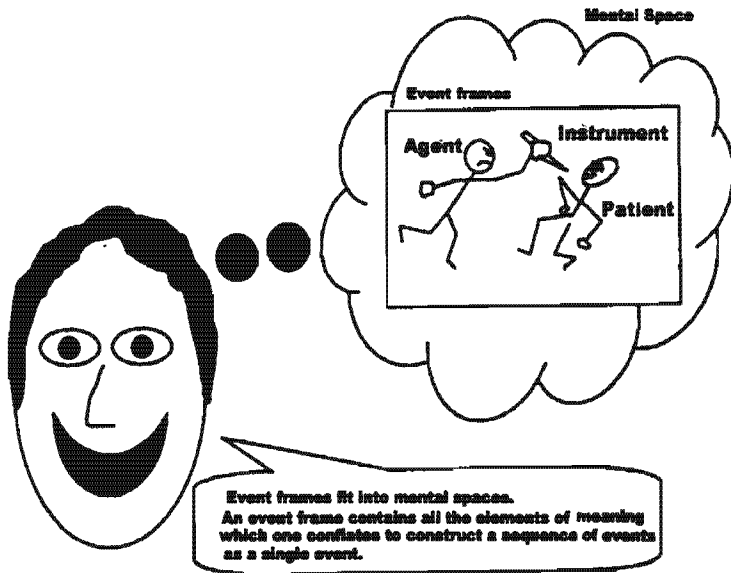


Figure 2: An event frame incorporating thematic roles within a mental space.

Within the event frame certain conceptual elements are on the foreground, while others are present in the background. The thematic roles that are allocated to entities when we conceptualize an event are prominent elements in the event frame. According to Langacker (1987a) the thematic roles of agent and patient are the archetypal, most basic or fundamental members of such a frame. Background elements in the event frame would be the time and locus of the event as well as the instruments used during the event—this view of event frames correlates with the figure-ground gestalt of cognitive psychology (Klopper 1997b).

In syntactic terms the foreground elements of the event frame constitutes the essential elements of the sentence such as subject, transitive verb and direct object (^{Subject}John ^{verb}hits ^{object}the ball). Other elements may be prepositional phrases which indicate instruments, place, direction and time (John hits the ball [^{instrument}with a bat] [^{place}in the backyard] [^{direction}at a wall] [[^{time}every morning/before school]]).

Time figures in the background as a fundamental mechanism to organize the sequence of events within a time frame. Because it is present in the background, it is an abstract and subconscious mechanism which organizes time, state, change, event, cause, modality, goal and method metaphorically by structuring time as space. Time, metaphorically construed as a container in which past, present and future are held in still smaller containers, implies that we can move backwards and forwards in time. This movement in time is described by means of syntactic patterns and morphological markers which manifest in language.

Every movement in time involves a complex operation over a variety of frames. Each operation is conceptualized as a cognitive event frame which includes an internal, causal and modal structure:

- An internal structure—the type of event which expresses the grammatical aspect of the event
- A causal structure which, according to Goldberg (1995), can be understood as conceptual schemas such as the movement of a body in space, manipulation of objects and force dynamic systems, i.e. our experience of forces which we apply, forces which are applied to us and forces in our environment which influence each other (Sweetser 1990)

- A modal structure which relates to speech acts so that forces which influence us psychologically and socially can be related to our experience of reality, possibility and necessity (Sweetser 1990). In terms hereof the different meanings of modal verbs are connected metaphorically so that the physical becomes a metaphor for the non-physical (i.e. mental, rational and social dimensions of experience).

According to Sweetser one's cognitive projection of physical movement and the manipulation of objects rests on the conceptual metaphor THE BRAIN IS A BODY MOVING THROUGH SPACE. This concept, which functions as a generic space (Turner 1996:88), is often used to illustrate cognitive events parabolically, as in Bunyan's *The Pilgrim's Progress* which compares 'the soul's journey to eternity' to a physical journey. The mental state is a locality, and a change from one state to another one is a change in spatial locality.

The manipulation of objects implies that there must be an actor who performs the actions, which brings modality into play: the possibility, necessity or obligation to perform a certain action. The actor can act as agent by performing an action which influences a second party, the patient, in some way: 'he breaks through a barrier' can be construed as a physical barrier being broken down or as a thought process during which new insights are obtained. Movement and manipulation can therefore be regarded as a natural combination with which we conceptualize a situation or a state.

Stories in Time: Analogy and Metaphor

Turner (1996:153-158) refers to narrative structure, or stories, as a thought process which coordinates a number of grammatical structures on a number of levels—stories and grammar have the same structure because grammar developed from stories by means of analogy. Time as a grammatical system developed from narrative structures such as 'she bakes a cake every day', with the grammatical construction Verb, Present Tense, Transference and Iterative Aspect, elements that arise from the projection of basic categories for stories, namely 'events' and 'action'.

Lakoff (1990:39) agrees that there is an inherent relation between language, metaphor and image schemas, and says that because image schematic mental patterns are transferred to abstract mental patterns by means of metaphoric mapping, certain abstract mental patterns are metaphoric exemplars of image schematic thought expressed in language.

A metaphor is not only used as a literary figure of speech, but is common in all forms of language use—in spoken as well written language, in all genres whether fiction, historiography, scientific formulation or legal discourse (Klopper 1997d). The word ‘metaphor’ originates from the Greek verb *meta-ferrein*, which means ‘to transfer’; the metaphor thus links two domains of experience with one another, or two subdomains of the same domain of experience (Botha 1996). The distribution of metaphor in everyday language was pointed out for the first time by Lakoff and Johnson in *Metaphors We Live By*, and since then research in the field of human cognition has confirmed the central role of metaphor in our conceptual systems—our perception of things around us, how we handle the physical world and especially our interaction with people in general. This basic, concept structuring metaphors became known as conceptual metaphors.

Metaphor establishes connections between language domains: our knowledge is organized associatively in domains of meaning, in subdomains and subsubdomains. A concrete domain of meaning can be entirely associated metaphorically with an abstract domain to make the abstract domain more understandable. Hence Turner’s (1991:76) metaphoric description of time as movement along a route: the present tense is metaphorically experienced as a point on the route where ‘we’ are situated, the past is metaphorically that section of the route which lies behind us and the future metaphorically the section in front of us. The point which corresponds with the present tense moves forward in a linear fashion—linearity therefore is an intrinsic part of time and a period of time a metaphoric line segment.

Change in time is understood by projection of physical action onto a non-physical state or situation so that we can experience time as a mover or a moving object, as shown in Figure 3. Time can perform an action as a healer by healing a wound, it can move forward into the future or back into past. A story, which implies change in time, carries meaning by integrating at least two mental spaces, a source space and a target space, which can be illustrated by comparing a mental journey with a physical journey. The physical journey is contained the generic space. A journeyer is taking a single journey towards a destination which is not specified; no direction is given, no date, nor the internal form of the journey. The degree of inspecificity allows the generic structure to be projected equally well onto the input spaces:

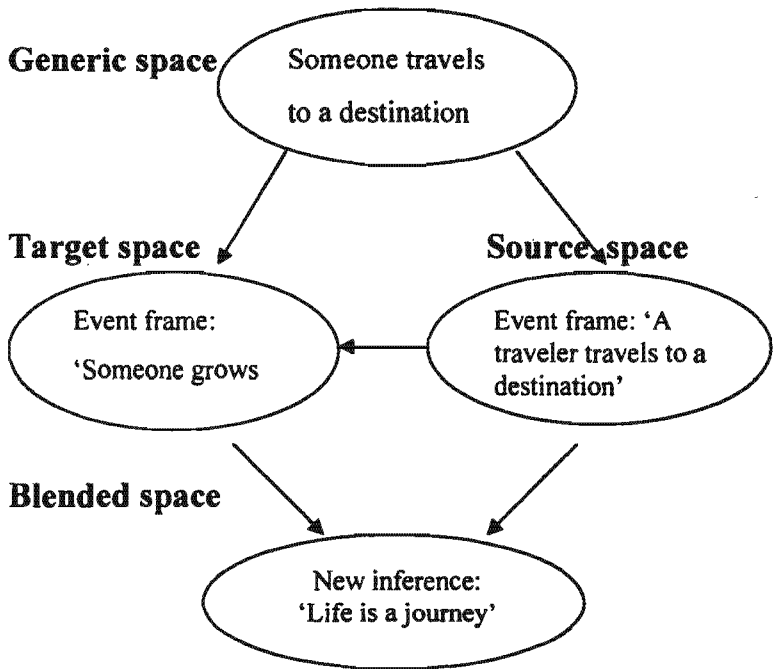


Figure 3: Integration of a source space and a target space into a blended space.

The source and target spaces each tell their own story on the basis of information contained in the event frames. The story in the source space is '*a traveler travels to a destination*'. The story in the target space is '*someone grows older*'. In the third space, the generic space, the stories in the source and target spaces share the schematic concepts '*a mover moves along a route to a destination*'. The shared concepts in the generic space make it possible to project the event frame elements in the source space onto the event frame elements in the target space and based on this association, to make a new

inference. By projecting 'a traveler travels' in the source space onto 'someone grows older', and by projecting 'someone arrives at a destination' in the source space onto 'someone eventually dies' in the target space, the conclusion 'life is a journey' is reached in the blended space.

From a topographical point of view, the source space information structures the information in the target space via the metaphor 'life is a journey'. In the case of this metaphor the details of death or dying in the target space block or inhibit the conceptual projection in the blended space, where there is no mention of a destination being reached, or of someone dying.

In summary one can say that the shared information in the source and target spaces generically integrates these two frames during conceptual blending on the basis of shared semantic information and that the information in the source space topographically structures the information in the target space, as set out in the diagram.

Through conceptual blending time as abstract, non-sensory concept is made understandable by projecting more concrete space-like conceptualizations onto it. The container image schema forms the generic basis for the conceptual metaphor TIME IS A BOUNDED SPACE and her two daughter metaphors A SHORT PERIOD OF TIME IS THE OUTER SURFACE OF A SMALL BOUNDED SPACE and A PERIOD OF TIME IS A TIME-FILLED INNER SPACE, which Klopper (1998) illustrates by referring to a short period of time like *a morning* or *a day* which is metaphorically construed as the outer surface of a small bounded space, so that one can travel to Johannesburg on a certain day, or on a morning [when transport will be available]. Should one construe *a day* metaphorically as a time-filled inner space, one can travel to Johannesburg in a day, or in a morning. On the basis of the same metaphor a good athlete can run the 100 meters in the wink of an eye or within 10 seconds, or a speculator can become a millionaire on the stock exchange in three months or within three months.

Time as a Deictic Category

Time as a deictic category and temporal reference point is anchored to a deictic centre, which represents the here and now of the actual time of utterance—this deictic centre is always present, at times in a highly abstract capacity, and functions as a basis space from where access is granted to time differentiation. As there is no such thing as a sentence without a speaker

(Langacker 1991; Cutrer 1994), each sentence has a conceptualizer which is always present in discourse, but which is not always marked grammatically or lexically. In written discourse a basis space may be created for a speaker, hearer, author, fictional character or narrator, so that the conceptualized perspective will be the initial anchor point for access to and interpretation of time. The speaker uncouples the deictic centre from the here and now and moves to another locality which is specifically identified with the here and now of the reported event:

It is 1652. Jan van Riebeeck arrives at the Cape of Good Hope.

In a real world situation the present tense indicates that the event is aligned with the time of utterance. With the historical presens each event can be interpreted as if aligned with the time of utterance so that an imagined 'replay' of events occurs (Langacker 1991), or an 'eye witness' version—by using the present tense, the speaker/author describes the event as of he is 'seeing' it happen (Turner 1996:120-122). The consciousness 'sees' ideas or concepts or observes it from a certain locality and from a certain point of view. The consciousness may then 'move closer' to the concept or 'move away' from it, it can 'have' an idea or 'let it go', and so on.

In accordance with the above, a mental space for the present tense is viewed as the primary domain of experience, and the cognitive point of departure from where one projects into the past or the future. During discourse the speaker locates himself in the here and now by opening a cognitive mental space for the present tense, so that deictic anchoring takes place. From this mental space he projects metaphorically to a past tense mental space, or to a future tense mental space. A specific mental space contains a sequence of events which is marked for the same temporal distinction: as soon as a shift in time occurs, a new mental space is opened for the new time frame. In this time frame events occur chronologically as a series of causal related events, and can be viewed as a completed event, an anticipated event, a conditional, or as historical presens. During projection to another mental space the deictic centre shifts to the time and locality of the event frame contained within the mental space.

By applying the same principles used in actual discourse to fictional narrative discourse, the same projections are made for a story. The story is told, by means of association mental spaces are opened, and within the mental spaces event frames are constructed that consist of sequences of events which

organize the chronological sequence of causal related events in the form of time frames. As in everyday discourse, the present tense within a narrative is regarded as the primary time frame for a cognitive point of departure from where projections are made into the past or the future.

Summary

The viewpoints put forward in this article are presented within the framework of Cognitive Rhetoric (Lakoff 1987; Johnson 1987; Langacker 1990; Turner 1991; 1996), which links human concepts with the theory of image schemas to account for the symbolic nature of human thought. Within this framework the mental spaces approach is shown to act as a background-organizing mechanism for the analysis and description of tense in everyday discourse as well as in fictional narrative texts. The interpretation of both types of discourse rests on the construction of a complex configuration of hierarchically related mental spaces—as each sentence in the discourse is processed, the configuration of spaces is adapted, based on lexical and grammatical triggers in the sentence (cf. Spruyt 2000a; 2000b). By applying the principles which have been developed for time differentiation in actual language use, the same projections are also made for a story.

Time as an abstract, non-sensory concept is understood by the projection thereon of more concrete spatial concepts, so that time can metaphorically be construed as space. Time is thus viewed as a container in which past, present and future are locked up in still smaller containers as cognitive event frames, each with its own internal, causal and modal structures.

Department of Communication Science
University of Zululand

References

- Botha, WJ 1996. Hoe beteken taal? 'n Kognitiewe perspektief. In *Suid-Afrikaanse Tydskrif vir Taalkunde Supplement* 28:5-25.
- Cutrer, LM 1994. *Time and Tense in Narrative and Everyday Language*. Unpublished doctoral thesis. University of California, San Diego.
- Edelman, G 1989. *The Remembered Present: A Biological Theory of Consciousness*. New York: Basic Books, Inc.

- Fauconnier, G 1983. Generalized Union. In *Communication and Cognition* 163-37.
- Fauconnier, G 1985. *Mental Spaces: Aspects of Meaning Construction in Natural Language*. Cambridge, Mass.: MIT Press.
- Fillmore, C 1968. The Case for Case. In Bach, E & R Harms (eds): *Universals in Linguistic Theory*. New York: Holt.
- Givon, T 1979. *On Understanding Grammar*. New York: Academica Press.
- Givon, T 1982. Evidentiality and Epistemic Space. In *Studies in Language* 6.1:23-49.
- Goldberg, Adele 1995. *Constructions: A Construction Grammar Approach to Argument Structure*. Chicago: Chicago University Press.
- Johnson, M 1987. *The Body in the Mind: The Bodily Basis of Meaning, Imagination, and Reason*. Chicago: Chicago University Press.
- Klopper, RM 1997a. *Embodied Consciousness*. Unpublished manuscript. University of Zululand, Durban-Umlazi Campus.
- Klopper, RM 1997b. *Die Figuur-en-grond-gestalt en die Afrikaanse Werkwoorde van Beweging*. Ongepubliseerde manuskrip. Universiteit van Zululand, Durban-Umlazi Kampus.
- Klopper, RM 1997c. *The Demise of Certainty in Interpretation*. Unpublished manuscript. University of Zululand, Durban-Umlazi Campus.
- Klopper, R.M. 1998. Eendag op 'n reëndag. In Gouws, Rufus en Ilse Feinauer Samestellers: *Sintaksis op die Voorgrond*. Pretoria: Van Schaik Akademies.
- Lakoff, George & Mark Johnson 1980. *Metaphors We Live By*. Chicago: University of Chicago Press.
- Lakoff, G 1987. *Women, Fire and Dangerous Things*. Chicago: University of Chicago Press.
- Lakoff, G 1990. The Invariance Hypothesis: Is Abstract Reason Based on Image-schemas? In: *Cognitive Linguistics* 1,1:39-74.
- Langacker, RW 1987a. *Foundations of Cognitive Grammar. Volume I*. Stanford, California: Stanford University Press.
- Langacker, RW 1987b. *Grammatical Ramifications of the Setting/Participant Distinction*. BLS 13:383-394.
- Langacker, RW 1988. An Overview of Cognitive Grammar. In Rudzka-Ostyn, B (ed): *Topics in Cognitive Linguistics* 127-161.
- Langacker, Ronald W 1990. *Concept, Image and Symbol. The Cognitive Basis of Grammar*. New York: Mouton de Gruyter.
- Rosch, EH 1973. Natural Categories. In *Cognitive Psychology* 4:328-350.

- Rosch, EH 1975. Cognitive Reference Points. In *Cognitive Psychology* 7:532-547.
- Rosch, EH 1978. Principles of Categorization. In Lloyd, B & E Rosch (eds): *Cognition and Categorization*. Hillsdale, New York: Lawrence Erlbaum
- Spruyt, MM 2000. 'n Kognitiewe Benadering tot Tydsdifferensiasie in Diskoers. *Southern African Linguistics and Applied Language Studies* 18:33-43.
- Spruyt, MM 2001. Kognitiewe Raamteorie: 'n Ontledingsraamwerk vir Tydsbeleving in Diskoers. In *Southern African Linguistics and Applied Language Studies* 19:81-93.
- Sweetser, Eve 1990. *From Etymology to Pragmatics: The Mind as Body Metaphor in Semantic Structure and Semantic Change*. Cambridge: Cambridge University Press.
- Talmy, L 1988. Force Dynamics in Language and Cognition. In *Cognitive Science* 12: 49-100.
- Turner, Mark 1991. *Reading Minds: The Study of English in the Age of Cognitive Science*. Princeton: New Jersey: Princeton University Press.
- Turner, Mark 1996. *The Literary Mind*. New York: Oxford University Press.