New Insights into the Language and Cognition Interface

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Edited by

Rafał Augustyn and
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PREFACE

New Insights into the Language and Cognition Interface is a collection of articles that successfully link theoretical assumptions of Cognitive Linguistics with empirical studies on language. The volume portrays, in a compact form, the latest state of the dynamically changing research in five areas of the cognitive exploration of language: conceptual blending, discourse and narratology, multimodality, linguistic creativity, and construction grammar. This is shown mainly from the perspective of two languages – Polish and English.

The book consists of five sections, each pertaining to the application of tools proposed by cognitive linguistics in empirical studies of various aspects of language and cognition.

The first section, *Blending and Usage*, presents two articles that offer a conceptual blending analysis of various linguistic expressions. The first contribution in this section, authored by Suzanne Kemmer, accounts for fictive motion radiation paths, adopting Fauconnier and Turner's (2002) four-space model of conceptual integration. Kemmer's "Fictive motion of light: Usage and blending" provides a basic universal blend which successfully combines Talmy's analysis of radiation paths (2000) with their manifestation in everyday language. Following this, in the article "Word games in advertising: A cognitive analysis of nonce-words", Aleksandra Pasławska discusses the ephemeral and context-dependent structure of selected nonce words found in Polish and English advertising slogans, adopting both Fauconnier and Turner's original model of conceptual integration (2002) as well as its extended variant as proposed by Brandt and Brandt (2005).

Section Two, entitled *Cognitive Analysis in Discourse and Narratology*, offers an account of studies in diverse fields of broadly-understood discourse. The section opens with the contribution by Anna Drogosz, who analyses various texts on evolution. Her contribution "Force-dynamic patterns in the theory of evolution" offers a cognitive semantic approach to scientific discourse, simultaneously applying force dynamic patterns as described by Talmy (2000). The article "Conceptual metaphors associated with climate change in UK political discourse" by Oleksandr Kapranov provides an in-depth study of conceptual metaphors pertaining to climate change used by the Conservative government and the

opposition Labour Party. His corpus–based analysis aims at identifying and comparing conceptual metaphors used in the discourse of both the Conservative Party and the Labour Party in years 2014-2016. Next, in her article "A Cognitive poetic analysis of paratexts. A study of E. Bowen's 'Postscript by the author' to *The Demon Lover and Other Stories*", Anna Kędra-Kardela elaborates on the cognitive model of text reading, stressing the particular importance of paratexts, their reception, and the role they play in the overall meaning construction of literary texts. The section ends with the contribution by Magdalena Zyga. Her article "The role of the conceptual metaphors/blends analysis in description of individual styles on the basis of selected lyrics by the Welsh Band *Manic Street Preachers*" is an attempt to approach stylistics, or, more precisely, individual styles, with the tools of cognitive linguistics, in particular Lakoff and Johnson's Conceptual Metaphor Theory (1980) and Fauconnier and Turner's Conceptual Blending Theory (2002).

The third section, titled *Multimodality in Language Processing*, offers three contributions, each presenting a multimodal approach to meaning construction and communication. The section opens with Elżbieta Górska's article "A multimodal portrait of WISDOM and STUPIDITY. A case study of image-schematic metaphors in cartoons", where she presents a multimodal analysis of image schematic metaphors that pertain to the concepts of WISDOM and STUPIDITY found in selected cartoons by the Polish artist Janusz Kapusta. In her article "Twitterati in the Twitterverse: A cognitive linguistics account of hashtags on Twitter" Ewelina Prażmo proposes a unitary analysis of "paralinguistic devices", such as semantically-charged punctuation which reinforces the verbal aspect of Internet communication and makes the speaker-hearer interaction more subjective and context-based. Last but not least, Krzysztof Kosecki's article "On the scope of conceptual metonymy in the compound signs of Polish Sign Language" offers an in-depth theoretical, as well as practical account of metonymy-based signs used in the languages of the deaf. The article also addresses the metaphor-metonymy interaction as found in Polish Sign Language.

Section Four, *Creativity in Language and Translation Teaching*, comprises two contributions. The first article, by Alicja Dziedzic-Rawska, is a study of endo- and exo-centric compounds found in contemporary English, stressing their creativity as well as the fuzzy nature of the two notions. "'Exocentric' or 'creative' formations? A plea for an update in terminology" gives the reader an excellent insight into the conceptualization of novel compounds in English as approached by native speakers. By contrast, in the second contribution "Assessing creativity in

the classroom: Teaching literary translation in a cognitive framework" Agnieszka Gicala offers two different approaches to teaching literary translation which aim to induce translational creativity among students. In her article she also discusses the complex problem of translation quality assessment, finding a (partial) solution in Bartmiński's notion of linguistic worldview (2009).

The last section, *Corpus Linguistics Approaches to Constructions*, presents two perspectives of exploring language through the study of various constructions using corpus material. While the article by Anna Ścibior-Gajewska and Joanna Podhorodecka, "The passive of Genitive and Instrumental verbs in Polish: Preferences and constraints", presents the analysis of the Polish passive applying Construction Grammar, in particular collostructional analysis and multiple correspondence analysis, Jarosław Wiliński's contribution "Distinctive-metaphostruction analysis: Investigating significant metaphorical constructions of two target domains" presents an extended variant of the distinctive-collexeme analysis, which derives from the notion of conceptual metaphor, as well as the concept of metaphostruction.

The volume draws inspiration from selected papers that were delivered at the annual international conference of the Polish Linguistics Association (PCLA) held on 24-26 September 2015 at Maria Curie-Skłodowska University in Lublin, Poland. The PCLA conference was an excellent opportunity to share and communicate recent trends and achievements developed within cognitive linguistics.

In the present collection of articles, we would like to share the linguistic enthusiasm that accompanied the conference participants, and invite the reader to delve into recent issues proposed by outstanding cognitive linguistics scholars, from Poland and abroad.

Agnieszka Mierzwińska-Hajnos
Rafał Augustyn

PART ONE

BLENDING AND USAGE

CHAPTER ONE

THE FICTIVE MOTION OF LIGHT: USAGE AND BLENDING

SUZANNE KEMMER

Introduction

This paper studies the expression of radiation path fictive motion in English, e.g. *light poured into the room,* in terms of the Conceptual Integration Theory of Fauconnier and Turner (2002), also known as blending theory. Fauconnier and Turner analyzed some of Talmy's fictive motion types as conceptual blends, but not radiation paths. By combining blending theory with Talmy's original analysis of radiation paths, and applying both to the empirical generalizations found in Kemmer (2014), new generalizations emerge about the nature of radiation paths that go beyond both Talmy's and Fauconnier's original analyses of fictive motion. Specifically, I argue that the fictive motion of light involves a range of related blends in a complex network of conventional blends, in which more complex blends are based on a simple but powerfully compelling blend that appears to be deeper than language.

Light and Motion: The Naïve Model of Light

The conceptual underpinnings of the fictive motion of radiation paths are found in Talmy's analysis of the basic human conceptualization of light. I view this conceptualization as a basic cognitive model, which I call the naïve physics of light. In this model, there is a light source from which visible radiation (light) originates and emanates. In its simplest configuration, the light travels through space along a linear path and reaches physical objects, which are illuminated by the light.

This naïve model bears some resemblance to the physics of light. In the scientific understanding of electromagnetic radiation, radiation moves physically from an energy source across space, and may reach objects in

its path. However, even in the visible spectrum of light, this motion through space is not detectable by human vision. Since light itself moves too quickly for the human eye to see its motion, an illuminated scene, unless there is rapid change in the illumination, is perceived as static illumination. Thus, light, in human perceptual representations, is not actually perceived as a moving object; but it is conceptualized as such, as evidenced by the use of fictive motion expressions as *the light came in the window*.

As Talmy observes, this mode of construing light is such an exceedingly natural and compelling conceptual structure that it can be difficult to understand that it is a construal that differs from our actual perception. As explained below, we can understand this structured conceptual model as the product of a conceptual blending process.

Conceptual Integration in the Fictive Motion of Radiation Paths: The Basic Blend

The naïve model of light is based on relations in another conceptual domain, namely motion through space. The deployment of motion as a structuring conception for an intangible domain like light is just one of myriad similar mappings from the concrete motion domain to more abstract cognitive domains that have been found in human languages around the world, as originally described in Lakoff and Johnson (1980).

The specific conceptual schema drawn on to form the blended conceptualization in radiation paths is the SOURCE-PATH-GOAL image schema described in Johnson (1987) and Lakoff (1987). The SOURCE-PATH-GOAL image schema is a schematic conception deriving from the motion of objects through space, and probably ultimately from the motion of the self-directed human body. It is a somewhat generalized schema in that it is non-specific for aspects of motion that are known to be otherwise significant in language, in particular whether the motion is construed as autonomous (the moving entity is understood as moving under its own power), or is instead induced by an input of force from another entity. The evocation of this image schema and the spatial domain it comes from generates conceptual correspondences that guide speakers of English (and perhaps all languages) to the construal of fictive motion of light, and makes the corresponding elements almost impossible to dissociate, once the mappings are made in a given language.

The conception of motion of an entity through space forms one of two basic conceptual inputs to the blend proposed here. The other input is a static conceptualization of a scene of light, the "veridical" construal that

corresponds to the perception of light by sighted humans as static. Both input spaces, called the motion space and the light space, are drawn from our experience in the physical world. Their structure is constrained by the structure of the physical world, but is filtered through our senses and thus has a phenomenological aspect which is quite distinct from physical reality. The light space specifically highlights visual perception, while the motion space is more multi-modal, relating to our kinesthetic sense of space and force, integrated with input from vision in the usual case of sighted individuals. Figure 1-1 represents this Basic Blend.

In the motion input space (Input Space 2 in Figure 1-1), structured information comes from our general knowledge of how motion works, with the moving entity (called the Mover) progressing through contiguous points forming a linear path towards a spatial goal. From Input Space 1, containing the scene of perceived light, there is also some pre-existing structure that can be used for cross-space mappings: there is the radiant or radiating entity, which is a bright object, and the illuminated entity, which is typically less bright; there is intervening space; and there is the visual perception of the radiation (visible light) within that space. The perceived light can be diffused or focused, depending on features of the light source and local features: at one extreme, it can form a visible beam highlighted sharply against darkness (which makes it look somewhat like a physical object with bounded edges, although it remains intangible), whilst at the other end of the spectrum, as in a brightly lit room or sunny outdoor space, it may suffuse the area with no visible beam structure, in which case the radiation seems more like a substance that occupies space in an unbounded way.

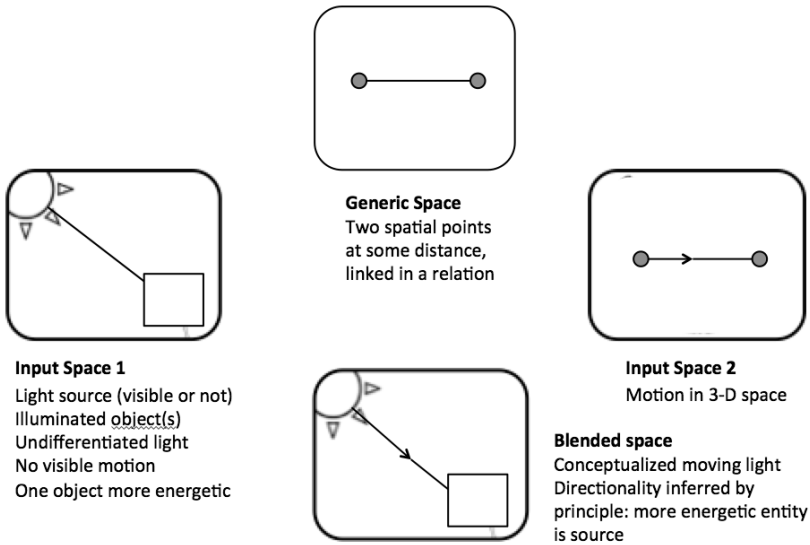

Figure 1-1. Basic Blend (non-language-specific)

In addition, the light domain provides a particular causal structure. First, the radiant entity is understood as the causal source of the light radiation; our experience shows that both light and heat are causally dependent on this object. I suspect this causality is learned early in a child's life in relation to the sun. There is no sunshine at night, and clouds, trees, and other objects can form obstacles that affect the brightness and warmth of the sun's light. In rooms, we can see that by controlling radiating objects like lamps or candles, we can affect the presence of the radiation, whereas controlling the radiated light by blocking or shading it, or controlling the illuminated objects by moving them in and out of the path of light, does not affect the radiant object itself. Thus, the radiant entity is seen as causing the radiation, which provides illumination enabling visual perception.

Significantly, the causal structure of the motion space is different: the point of origin of the motion of a Mover plays no role in the causing its motion. In the motion space, the Mover is seen as propelled by some force—either force exerted by the moving trajector itself, as in the case of agentive, animate movers, or a force that is understood as added by some external entity in the case of inanimate Movers like bullets or falling

objects. It is not this causal structure of the motion domain, but rather the causal structure of the light space that will be projected to the blend.

The input light space lacks some of the structure needed for the blend. There is no intrinsic 'progression' from a spatial source to a spatial endpoint of a light trajectory as there is in the motion space. There is no inherent spatial directionality at all perceptible in light, since as mentioned above we cannot visually track its motion through space as we do in the case of a perceptibly moving tangible object.[1] The visual scene, to our eyes, is static.

Given our knowledge of both the sun and artificial light, we do know that some bright object is the causal source of the light that we see, whether we can observe it or whether it is hidden. So we can say that there is a more abstract, not directly observable causal directionality present in the light space, despite the lack of spatial directionality.

The two ends of the configuration in the light input space, being spatially separated, are good candidates to match the endpoints of the spatial trajectory in the motion space. Which entity, radiant object or illuminated object, is mapped to the spatial source when the two spaces are cognitively aligned is plausibly determined by what Talmy (2000) terms the active-determinative principle, a general principle he has identified in which the more energetic and active participant in a fictive motion relation is the one taken to be the spatial source. I understand this principle as referring to causality, since an active, determinative role in a relation is a causal role. This determinative exertion of energy has an effect on the other participant.[2] By this principle, the radiant object, which is understood as an energetic, causal source, is linked into a conceptual correspondence with the spatial starting point of the trajectory in the motion space. Progression from a spatial source to a goal is thus taken from the motion space, where it is a defining feature of the SOURCE-PATH-GOAL construal. It is this dynamic construal that will be projected to the blend from the motion space.

Talmy also notes that in the case of light, particularly in the case of the sun, the radiant entity may be imputed some property of agentivity or

[1] For further discussion of this point, see Talmy (2000) and Kemmer (2014).

[2] The active-determinative principle, as Talmy suggests, itself emerges from our conception of agency. It results from general mappings from a cognitive model of agentive motion onto the perceived motion of certain inanimate entities we construe as moving autonomously. Agentive motion is a specific, highly salient instance of the more general motion space used as the immediate input to the Moving Light blend. We can think of agentive motion as a third input space that feeds the motion input space in the blend.

quasi-agentivity. We can understand this idea in a blending analysis by saying that such agentivity is projected onto the radiant entity by another, even more basic and general, blend of agentive and non-agentive motion inputs. In the case of light, however, such a mapping yields only an understood *potential* for relatively autonomous action. The radiant entity is not a mover in any space in the basic 'light in motion' blend. What is understood as moving across space in case of a fictive motion construal of light is the radiation, i.e. radiated light, not the object emanating the light.

Both immediate input spaces, the perceptual representation and the motion space, since they draw on three-dimensional physical space, already share the same spatial structure and logic. This means that points in space between source and target can map onto each other in the order of relative closeness to the respective sources and endpoints. The result maintains the coherent spatial logic of relative distance.

When all the correspondence links are made across the two input spaces, the blend is generated in a mental space called the blended space. In the blend, the light moves through space. It is generated at and emerges from the radiant entity, now understood as the spatial source of the light; thus in this space, but not in the light space, we can call the radiant object a light source. The radiated light passes through space and arrives at the endpoint object. The resulting contact causes the object's surface to be illuminated by the radiation and thus visually perceptible.

The new blended conception described above is a mental construal imposed on the visual scene. Yet it is hard for humans to see it as anything but reality. The structure seems given by our eyes, as though it were directly perceived.

A fourth space that emerges in the process of linking up corresponding elements is what Fauconnier and Turner call a Generic Space. This contains whatever structure the two input spaces have in common. In this case it is the highly schematic SOURCE-PATH-GOAL image schema, which, although clearly experientially related to (and most likely derived from) motions in physical space, is more abstract and not specifically about motion or space; it is domain-general. The generic space, in the blending model, is typically the locus of such general image schemas, which are themselves abstracted from recurrent experiences and can form the inputs to many different blends.

The blending network composed of the input spaces, the generic space, and all of the conceptual linkages among them, is co-activated in mental processing during the cognitive processing of the blend, yielding an integrated conceptualization evoking various aspects of the input spaces simultaneously.

The Basic Blend is understood as a general human conceptualization, not specific to any particular language, and thus accounting for the widespread presence of fictive motion of the radiation path type in human languages. This blend is a conceptual structure with no specified formal characteristics, whether lexical or grammatical, since such linguistic elements are conventional and language specific. It is a general, image-schematic structure that is fleshed out in language use. In languages with conventionalized expressions for fictive motion of radiation paths, the basic conceptual blend will be linked to these conventional units, which may be schematic or specific as the case may be in particular languages.

There are additional peculiarities in this blending network. Light is a funny kind of moving entity; in the blend it both moves, yet simultaneously occupies all the points on the linear path between source and target. If the light source is sufficiently bright, the light also occupies the entire space between the two endpoints, which is not confined to the linear path connecting them. Concrete moving objects do not have these properties. The fictive movement of light, I suggest, construes light as a continuous, unidirectional motion that produces a stable and homogeneous configuration. In this respect it parallels one well-known type of physical motion, namely the typical motion of water in a river, which follows a trajectory through space but which also, when we step back and look at the whole scenario, forms a stable and relatively homogeneous configuration in which there is always water in any given stretch of river observed. Like water, light does not have a tangible shape of its own. When it is seen diffused in space, it does not even have a derivative linear shape, unlike, say a river in a river bed, or a stream forced under pressure out of a hose. Although light, as an intangible entity, is physically different from water, with consequent perceptual differences, the similarities are nevertheless strong and thus light is easily construed as a shapeless, liquid-like substance that moves. This construal receives conventional expression with certain verbs which take part in the 'light as a moving fluid' blend (see section entitled "The fictive motion of light as a liquid").

As the blend is processed, or 'run' in Fauconnier and Turner's terminology, the mappings between corresponding elements are clicked into place and the blend merges the elements into a single set of entities, an integrated conception that can be called up in any description of light. The resulting blend is very basic and minimal in the information it provides. There is a light source from which light moves, and an endpoint of the motion. Nothing is conveyed about how the light moves, or what specific properties it might have as a moving object or substance. These minimal, schematic aspects are spelled out in language-specific

expressions of various degrees of specificity. In English, for example, an example like *light came in through the window* is an instantiation of the general blend described above. The noun *light*, the verb *come*, the path expression, and, in this case redundantly, the intransitive motion construction, all serve to elaborate on the particular light scene described, as they fit together into a coherent compositional structure conveying the meaning of the expression.

The conception that light moves through space is powerfully intuitive yet fictive. It is widespread and perhaps universal. Languages can, however, implement the expression of this conceptualization in different ways and to varying degrees. In Kemmer (2014) it was shown that English has a number of striking patterns of linguistic expression that are based on this conceptualization. Patterns with varying degrees of similarity have also been described in Mandarin in Tso (2012), Kemmer and Tso (2012), and Ma (2016).

In English, the fictive motion of light appears in specific conventionalized ways, determined by the particular grammatical structures available and the ways that specific verbs, by virtue of their core meanings (which have themselves been abstracted from linguistic experience as cognitive prototypes), have come to be conventionally associated with these structures. I propose that much of this range of expression comes from the fact that the Basic Blend described above forms the input to other blends in a network of related blending structures. The range of types, in the sense of distinct verbs, appearing in this conceptualization is extensive, yet the overall pattern is strongly constrained: the verbal predicates that occur fall into a limited set of semantic classes whose members occur again and again. These classes are associated with domains of knowledge that serve as regular inputs to a fairly limited set of conceptual blends.

I now turn to verb classes that recur in fictive motion expressions in English, and describe how knowledge of events from these domains is conceptually blended, along with information from particular grammatical constructions in English, to form integrated conceptualizations at different levels of complexity, related in a network of conceptual blends.

Verb Classes in English Fictive Motion

Kemmer (2014) investigated radiation paths in English by searching the Corpus of Contemporary American English (Davies 2008), a very large balanced and tagged corpus of English, for instances of the string *light [[V]]* in which *light* is a noun. I then collected the subset of the results

representing instances of the search string containing motion-related verbs, broadly construed, and verbs found in motion-related constructions (including verbs of light radiation, which often appear in fictive motion expressions). With this method I sought to identify the maximum number of fictive motion uses possible with a small number of searches that would not attract a large number of 'false hits.' These instances were then categorized by their conceptual semantics in their most prototypical spatial-domain uses. There were 234 distinct verbs relating to motion and motion constructions that collocated with *light,* representing thousands of instances of use.[3] The analysis below is thus based on usage data, unlike many accounts of fictive motion. Table 1-1, from Kemmer (2014), shows the most frequent verbs from this search (approximately the top 80) categorized by semantic types.[4]

Table 1-1. Semantic classification of the verbs most frequently collocating with *light*

General types	Specific types	Verbs
Light actions	Radiation of Light	shine, flash, reflect, flicker, blink, glow, flare, glint, light, radiate, pulse, wink, beam, (blaze)
Motion	Generic Motion	come, go, move, travel, pass
	Manner of Motion	fall, play, bounce, shoot, run, dance, explode, creep, burst, sweep, swing, spin, throw, glance, reflect, (travel), (escape)
	Motion of liquid/fluid	filter, pour, spill, fill, stream, flood, seep, wash, bathe, leak, cascade, flow, bleed
	Path of motion	emit, leave, enter, reach, (emanate), scatter, (throw), spread, follow, rise, surround, send, (escape), set, put, return, cross, emerge, pull, bend, place, (reflect), (open), (close)
Contact	Verbs of contact	hit, catch, strike, touch, (place)
	Verbs of forceful contact and disruption	penetrate, break, cut, pierce, stab

[3] In this paper all examples cited are from these data from COCA.

[4] A few verbs fit more than one category due to their semantic complexity. Verbs in parentheses are marginal members of a given category. For further discussion of the semantic categorization see Kemmer (2014).

Table 1-1 reveals that there are some strong semantic patterns in the verbs found in connection with the noun *light*. There are, what I term, light actions, which describe either the simple radiation of light, like *shine*, or the action of radiation combined with some manner of radiation, such as *flash* and *blink*. Verbs of motion are also frequent, both generic motion as well as particular types of motion including paths of motion and manner of motion including motion of liquids or fluids. Verbs of contact of different levels of force are also found, which I have divided in the table into verbs with strong force and resulting disruption of the integrity of an object, and other verbs of contact without those specific properties.

For reasons of space I describe in detail only one type of motion-related verb class in terms of blending in this paper, namely verbs describing light as moving as a liquid (see below). In my view, all of the general and specific semantic types of verbs that occur in fictive motion of radiation can be described in terms of blending, but I will reserve the other types for a later analysis.

Some Blended Conceptualizations

In English there are many examples of the fictive motion of light with generic motion verbs like *come* and *go*, e.g. *I started reading the books sitting on the ladder where the light came in.* I consider these expressions to be the result of blending the Basic Blend, which is not language-specific, with lexically-instantiated conceptualizations of motion in English. I will call this blend the Generic Motion Blend. Analogs are found in many languages. This blend can form the input to more complex blends. For example, we can combine the Generic Motion Blend with the conceptualization of light-radiating actions of luminant objects, such as shining, as in *Her light still shines brightly.* The latter is not a motion conceptualization, but once the action of radiating light combines with motion, we get as a result the common fictive motion conceptualization of light shining on, or to, or toward an object, as in *we suddenly noticed an irritating white light shining directly at us through the trees.* This fictive conceptualization, which I call the Light Shines Down blend, is motivated by the naïve model of light in which light is understood as moving. But it is still a conventional construal linked to specific English expressions including the verb *shine* and specific constructions, notably the intransitive motion construction and also in some cases the caused motion construction (*shine a light on*). Such verbs in many languages do not conventionally occur in fictive motion. For example, the Spanish *brillar* ‘shine’ does not readily do so; and in Japanese, the most common verbs of

light emission (*hikaru* 'shine' and *kagayaku* 'shine brightly') do not occur with path construals (Yo Matsumoto, p.c.). Constraints on the types of events in fictive motion across languages, I maintain, show that such construals are matters of convention. That is, although they are conceptually motivated, they are language-specific conventional patterns.

Shine is a verb of generic radiation, which does not describe any particular mode of emitting radiation. But once we consider more conceptually rich kinds of emission of radiation, we can get more complex conceptualizations involving manner of radiation: for example, *flash*, *glare* and *reflect*, which have complex temporal and other properties, turn up in the data in fictive motion construals in English (e.g. *light flashed against the wall*). These complex construals, I would argue, are the product of conceptual blending of the Light Shines Down fictive motion blend with various manner of radiation construals.

The Fictive Motion of Light as a Liquid

Manner of radiation is one type of input to the blending process in English. But manner of motion is another common input. In English, light can *fall* or *bounce* or *shoot*, all of which are ways of describing how light fictively moves. A conceptual integration of the Basic Blend with the prototypical frames evoked by manner of motion events is straightforward. Light is a Mover in the Basic Blend, so the Mover from a motion input is readily mapped to it. The two motion trajectories, the generic one and the manner-specified one, will fuse, preserving orderings given by spatial contiguity of the points traversed and the time it takes the mover to reach them. The corresponding elements are thus blended into a single integrated conceptual space, understood as a single event of motion, and they are also linked to corresponding arguments and other elements in a clause.

Within the above-described range of conceptualizations, there is a notable pattern that appears in the data: the manner of motion verbs that specifically and prototypically make reference to a liquid or fluid mover. Light can *flow* or *pour* or *cascade*, as evidenced by many examples of each. These cases take as input particular domains that relate to common experiences with liquids. Liquids are experienced as moving in various ways. Some of these are similar to the kinds of manner properties for manner of light radiation, in particular intensity, which relates to energy and force. In Table 1-1 we see verbs such as *pour, spill, fill, stream, flood, seep, bleed, and drain*, which seem to form a cohesive pattern, a subset of manner of motion.

As pointed out above, light is in many respects like a liquid: It is a continuous mass that is internally homogeneous; it is intrinsically shapeless; and it can be given shape by external objects. In the case of liquids, shape can be provided by physical containers that hold and support them against gravity, such as watering cans or river beds. In the case of light, shape can be given by container-like spaces such as rooms that can be suffused with light, or by objects that block the light to varying degrees. Furthermore, in the Basic Blend light is construed as a river-like object, both moving and globally stable. Thus, it is no surprise to find that this Basic Blend can form an input to other blends which draw on frames of knowledge about liquids. These become a rich and productive source of conceptualizations of light.

Consider the example *a stream of light poured down.* We know a great deal about streams of water through our physical experience, both natural streams and human-created ones. We know about the physical aspects of pouring of liquid, especially water, from one container to another; the way it looks as it falls through space, the way it feels when it splashes on us, and the resulting wetness where it lands. We know that liquid can follow a physical path through space when being poured, observable through vision and/or touch, and that its path typically has a starting point and an endpoint, usually at least one of them visible.

The experience of water in motion forms a natural basis for the conceptualization of light as a substance flowing through space from a light source to an illuminated object or scene. We have specific understandings about the particular ways objects move (down toward earth, because of gravity or their own weight). We have more specific understandings about how liquids move. If the source of the liquid is higher than its endpoint, we understand there is going to be downward motion through space, again because of gravity. If the source is lower, or not visible because we are in an enclosed space or light is in an enclosed space, we activate our understanding of how liquids move into or out of a container. For a small amount, perhaps not where it should be, we use *leak*; for a small amount coming through a porous object, *seep,* or for a lot of liquid coming and filling a large space, *flood*. We select one of these frames and activate it when describing a scene of light that has corresponding properties. Also activated is the generic space we have abstracted from our experience of space, the SOURCE-PATH-GOAL scenario from the domain of motion.

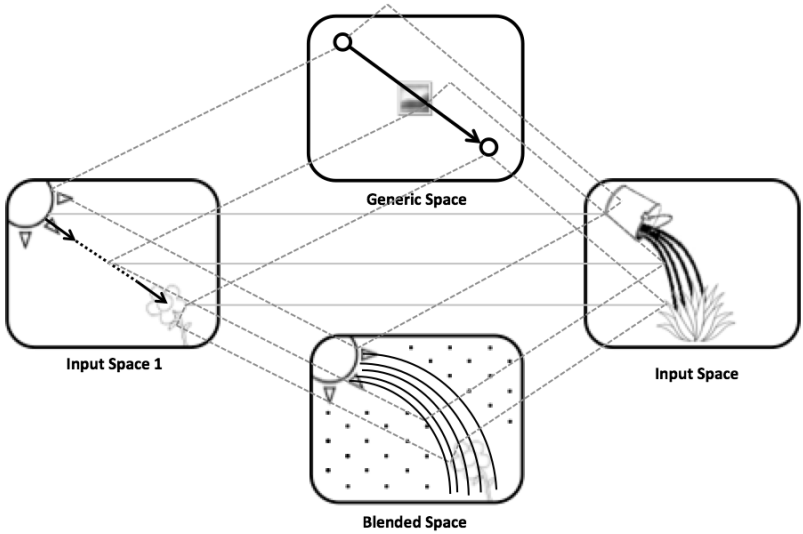

Figure 1-2. Light as a moving liquid

Figure 1-2 illustrates a blend that combines the Basic Blend of Figure 1 with our understanding of the motion of water when it is poured from a container.

For this blend, whatever source input space we select (in the Figure, a pouring scenario) gets projected onto the existing moving light blend (Input Space 1) which had already given us a conceptualization of moving light associated with the visual scene of light. The kind of mover (liquid) and the precise manner it moves (depending on input space selected) is projected from the moving liquid source input space, onto this preexisting blend. The structure is already there and it is easy to link up the elements – water is the thing moving. The source is where the water is coming from. The goal is where the water ends up. The path in between is the space traversed.

Thus, we take the semantic characteristics of the manner of motion of liquid from the specific experientially-derived source conceptualization. We blend it with our pre-existing, conventional blend of light as moving object coming out of a light source. The result is a second blend in which light moves in a particular way. Notice that some information from the source domain is not projected; wetness, for example, is not projected from the input space. Light can seep into a room under a door, but we do not therefore expect the floor to be wet. On the other hand, if the input

domain selected involves lots of water moving in, such as in a scene of light flooding a room, the blend can generate inferences about liquid-like scenes, e.g. the blended space can have objects that become covered by the liquid-like light and therefore can evoke the notions of being soaked or drenched.

Summary of Relations among Blends

Figure 1-3 is a summary of the relations between the conceptual schemas briefly sketched in this paper. Input schemas are arranged above the blends they are inputs to, and their role as inputs is shown by a connecting line. The four blended schemas mentioned or described in the analysis are numbered 1-4. The unnumbered schemas are those that serve as inputs, but not blends.

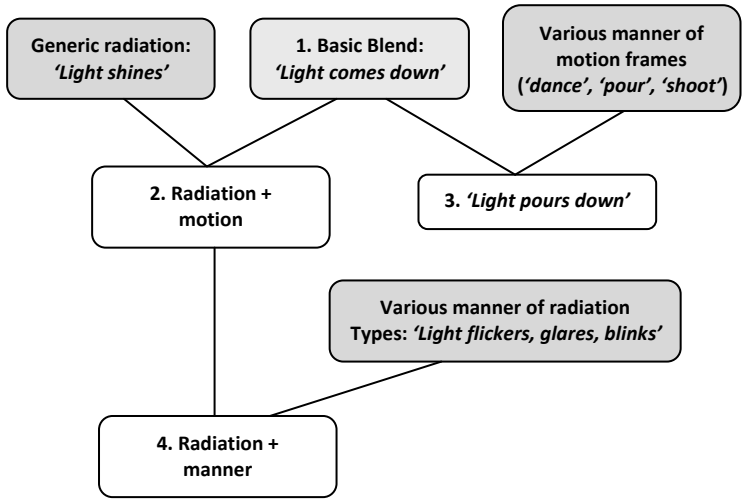

Figure 1-3. A family of blends in English fictive motion of radiation

The diagram shows the Basic Blend (Blend 1) serving as input to two distinct complex blends, one which simply involves a generic radiation of light, yielding Blend 2, 'light shines down', and the other which takes conceptual content from any of a variety of experiential frames characterized by motion that occurs in particular ways, by virtue of particular kinds of Movers and their conventional types of motion in these frames. This yields Blend 3, in the diagram based on the specific

experiential frame of pouring liquid. This analysis accounts for the various kinds of fictive light actions attested in the data relating to metaphors of light pouring, bleeding, sweeping, etc. The generic radiation type, blended with motion (Blend 2), can further combine with input frames involving types of light action, yielding the types of fictive events that incorporate manner of radiation as well as motion, such as *flash* and *glare* (Blend 4). The diagram as a whole thus shows a family of blends that forms a useful and productive range of conventional construals that can be used in the expression of the fictive motion of light in English. The more frequent verbs in a given construction are entrenched usages instantiating the more general blended schemas of 1-4. These schemas are productive in that other verbs which are more or less similar in semantics can be recruited into the pattern in an *ad hoc*, contextually-determined way that does not depend on prior learned use of these verbs in fictive motion. This gives us a core of conventional uses, with flexible extension patterns at the periphery of the system, thus providing stability yet flexibility and the potential for incremental change.

Conclusion

The types of fiction motion construals in English are treated here as a family of blends, a linked network of cognitive structures underlying some major patterns observed for fictive motion of radiation in English. Conceptual Integration theory provides a useful, and I would claim, illuminating framework for describing the language-specific ways in which light is construed in English and how these relate to the more general human conceptualization of light described by Talmy.

This framework can be used to compare and contrast languages with regard to their conventionalized fictive motion construals. Cross-linguistic differences in regard to potential fictive motion construals are a matter of what conventional blends various languages have developed based on their basic clausal or other constructions, in particular motion constructions. Conventional blended schemas allow these constructions to take input from conceptual domains that do not directly relate to them in terms of basic conceptual content. The account brings together Talmy's and Fauconnier and Turner's analyses of motion and related constructions at a more general level than is found in these accounts separately.

It now remains to relate Talmy's approach more specifically with the blending account of fictive motion by Fauconnier and Turner in terms of theoretical mechanisms. Both accounts posit that the two conceptualizations in fictive motion construals–static and dynamic–are

simultaneously activated during processing of fictive motion language. The conceptual integration account, however, adds a few more specific notions to Talmy's account. First, it specifies that the two similar conceptions are linked into a single coherent conceptualization that emerges in cognitive processing and, crucially, combines aspects of both source conceptualizations into a distinct conceptualization, often with emergent properties. It also posits that the blending process creates higher-order conceptualizations out of simpler ones, and these conceptual assemblies can occur in any number of layers of complexity. Conceptual integration theory, as illustrated here, allows for precise and explicit analysis of entire assemblies of such blended conceptualizations.

Examining these properties of the blending analysis, it becomes clear that they are not in any fundamental way incompatible with Talmy's analysis, but instead emerge from a somewhat different theoretical focus. Talmy's primary interests lie in elucidating the conceptual system underlying human language; identifying the major subtypes within the system represented by cross-linguistic variation; and observing how the human conceptual system of linguistic semantics relates to other human conceptual systems. Conceptual Integration Theory, on the other hand, is interested in describing the creative machinery of thought that is unique to humans. It analyzes how previously learned conceptual structures in any domain, whether or not related to language, can be combined with structures in other domains to generate new conceptual structure.

The account of fictive motion in radiation paths presented here shows that when put together, the two theories yield a rich understanding of both language-specific and language-general aspects of fictive motion. Moreover, applying this framework with careful cross-linguistic comparison, there is potential for uncovering cross-linguistic patterns involving subtypes of fictive motion systems, for example, a type grouping English and Chinese as having manner blends in fictive motion and Japanese and Spanish lacking these. The relation of motion constructions to fictive motion can also be explored systematically, within and across languages. I hope with this study to have opened some new pathways in the study of fictive motion.

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CHAPTER TWO

WORD GAMES IN ADVERTISING: A COGNITIVE ANALYSIS OF NONCE-WORDS

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Introduction

Throughout the years, word formations have served as a fruitful area of study for different researchers. It should come as no surprise that, as Kemmer (2003) states, "there is something fascinating about a word in which different ideas are brought together into a new, integrated concept by simply fusing the corresponding words into a single lexical item" (Kemmer 2003, 69). The growing interest in the study of word formations in general and nonce-words in particular has contributed to a number of theoretical approaches put forward by different linguists (see Bauer 1983; Crystal 2000; Štekauer 2002; Kemmer 2003; Hohenhaus 1998, 2005; Guz 2012). Having investigated some of the notable theories on the nature of nonce formations proposed in the academic literature, we argue that the view suggested by Peter Hohenhaus (2005) appears to be the most appropriate for investigating such lexical items given the fact that, in the psycholinguistic sense, nonce words are new, *ad hoc* formations, characterized by their context-dependency (Hohenhaus 2005).

So far, a considerable number of studies on new word formations have focused primarily on phonological, morphological, semantic or syntactic features involved in the creation of lexical items. Scant attention has been paid to cognitive processes taking place in the minds of language users upon the establishment of nonce-words. We argue that word formations go beyond the commonly established views and that what appears to be at the core of determining the meaning of nonce formations is the contextual information along with language users' encyclopaedic knowledge of the world. Having assumed that word formation is a cognitive phenomenon, this paper undertakes an analysis of nonce-words from the point of view of Cognitive Linguistics, with the crucial use of Fauconnier and Turner's

Conceptual Blending Theory (2002) and particularly with its modified version proposed in Brandt and Brandt (2005).

The examples of nonce-words analyzed in the remainder of this chapter were retrieved from selected Polish and English advertising slogans to fulfil the assumptions of nonce formation phenomenon in the sense of Hohenhaus (2005).

Nonce Formations as Linguistically Creative Phenomena

In the academic literature, nonce formations appear to be of great interest and use to researchers of different fields, however a sound cognitive linguistic examination of nonce formations appears to be desirable. Before we offer a profound cognitive analysis of nonce-words in advertising slogans, a brief summary of Hohenhaus's perspective is in order.

In his definition of nonce words, Hohenhaus (2005) outlines that "the one feature that applies to all nonce-formations, i.e. the necessary (but not necessarily sufficient) condition for 'nonceness' as such, is that the formation is 'new' – more precisely: 'new' in a psycholinguistic sense, i.e. formed actively (by whatever means) by a speaker – as opposed to retrieved, ready-made from their storage of already existing listemes in the lexicon" (Hohenhaus 2005, 364).[1] Hohenhaus (1998) supports the validity of his view with "four co-defining features, the presence of which ranks nonce formations from basic, meeting one fundamental criterion (i.e. newness), through gradually more typical ones displaying more than one feature, to, ultimately, prototypical ones exhibiting all the features" (Guz 2012, 231), namely:

1) newness, i.e., the lexical item is not retrieved ready-made from the mental lexicon but is newly formed;
2) context-dependence, i.e., full interpretation and feasibility of nonce formations depends utterly on the context;
3) deviation, i.e., "many nonce formations must also be considered to be deviant, i.e., not conforming to the language's word-formation rules or well-formedness conditions" (Hohenhaus 1998, 240);
4) non-lexicalizability, i.e., due to the fact that nonce formations cannot be fully interpretable without a context, they cannot be

[1] In everyday discourse, nonce formations are coined for different reasons (Guz 2012). The most frequent cause is the need to fill some lexical gaps. Guz (2012) outlines that "the very fact of the coinage illustrates the usefulness and potential of nonce formations, which the speaker/writer can fall back on at any time as need arises" (Guz 2012, 228).