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The Three Grammars and the Sign

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This article presents an original three-component model of the linguistic sign. It shares with the established triadic models of Peirce (1955 [1897]) and Ogden & Richards (1923/1949) in identifying THOUGHT, WORD and THING as essential components; but differs in being linear, with THOUGHT and THING at opposite poles. It is argued that this arrangement reflects the way the components of the sign relate to reality and thereby serves well as an explanatory tool for linguistic research. The model is further modified at each of the ontological realms using concepts from cognitive linguistics, renamed COGNITION, LANGUAGE and REALITY. The new model is employed as a research tool in two case studies: one illustrates its use in making sense of the complex field of language grammar; the other does the same for figurative language – metaphor and metonymy. The article’s conclusions include that interrogating established cornerstones of linguistic theory in the light of new theory can lead to the development of improved research tools.

Keywords: semiotics, the sign, ontological realms, reification, construal, construction, grammar, metaphor, metonymy

1. Introduction

Research in linguistics can go in two directions. It can either use the linguistic knowledge we are endowed with for the tools it offers in understanding particular language contexts, such as language contact, multilingualism or translanguaging; or it can step back and look at the tools themselves in order to deliver more precise instruments at the service of linguistic research. In this article, I am concerned with the latter. The area of linguistic knowledge I am revisiting is semiotics, and, in particular, the models of the sign developed by Saussure, Peirce and Ogden & Richards. The result of this enquiry is my own triadic model of the linguistic sign, presented in Section 2, which by being linear rather than triangular, intends to reflect more keenly the linear ‘route’ from mind, through the interface of language, to the external or ‘real’ world. In Section 3, the basic linear model is modified at each of the three realms, using concepts from cognitive linguistics to meet criticisms levelled at triadic models. The realms are renamed COGNITION, LANGUAGE and REALITY.

This is not a philosophical investigation, a ‘drilling down’, for its own sake. My purpose is to develop a framework which can be used to overview and map the complexities of multi-disciplinary areas of linguistics. The author’s model of the triadic sign is especially useful when overviewing areas of enquiry dealing with language *in use*, such as discourse analysis, sociolinguistics, language teaching and translation/interpreting. There is evidence in the literature

that this sort of framework has proved useful in the past. Benjamin Whorf's selected writings from the 1920-40s, for example, were collected together under the title *Language, Thought, and Reality* (Whorf 1956), and John Lyons's short book overviewing twenty-five years of developments in semantics has the title *Language, Meaning and Context* (Lyons 1981). Both identify the three ontological realms, in the same order but using their own glosses, as a useful meta-framework to overview a wide-ranging field.

In Sections 4 and 5, I offer two case studies showing how the linear triadic model of the sign can help rationalize the complexities of particular areas of endeavour in linguistics. Section 4 looks at grammar and argues that the innumerable systems describing the grammar of language conform to three broad approaches, which can be characterized as GENERATIVE, FUNCTIONAL or COGNITIVE – referred to in the rest of the article as the 'Three Grammars'. In that section, I map the Three Grammars onto the linear triadic model of the sign, showing how each represents a shift to one of the three realms of the linguistic sign: the main focus of *generative* grammar is language as an autonomous system, the realm of LANGUAGE; *functional* grammar focusses on real and imagined worlds, the realm of REALITY; and *cognitive* grammar on conceptualization and mental processes, the realm of COGNITION. In Section 5, I show how research into figurative language, metaphor and metonymy, also reflects the three realms of the sign, and how the triadic model has been used to classify types of metonymy. I also discuss how grammar systems have treated figurative language, and why. Section 6 offers concluding remarks.

To some, it may seem audacious, even heretical, to question established cornerstones of linguistics such as Saussure's, Peirce's or Ogden & Richards' models of the sign and to suggest that they might be improved upon, but I believe that returning to the basics and interrogating existing theory is a duty, especially as theory developed in more recent times can refine and develop theory developed in previous times. This article also suggests that cognitive linguistics offers powerful tools for analysing linguistic data, especially in areas of language in use, because of its emphasis on thought; and that cognitive grammar offers especially rich and naturalistic tools of research compared to the other grammars by getting closest to mental processes and therefore closer to production.

2. Modelling the sign – developing a linear triadic model

The model of the sign most referred to in linguistics and applied language studies is Saussure's dyadic model from his *sémiologie* with its two components, *signifiant* and *signifié* (Saussure 1916: 66-67) – known in English as 'signifier' and 'signified' from Wade Baskin's translation (Saussure 1916/1959) but also 'signal' (sound pattern) and 'signification' (concept) in Roy Harris's translation (Saussure 1916/1983). Saussure famously defines the linguistic sign in terms of the association between a concept and an acoustic image and not with reference to objects in the world or 'denotata': "Le signe linguistique unit non une chose et un nom, mais un concept et une image acoustique [author's translation: "A linguistic

sign does not associate a thing with a name but a concept with a sound pattern”] (Saussure 1916: 66).

Saussure’s omission of the referent was no oversight and deliberately diverged from the thinking of the time: he wished to foreground the immaterial aspects of signs over their referential function and thereby highlight language as an arbitrary and relational autonomous system; or, as Johansen puts it, Saussure’s decision to focus on ‘signs without worlds’ was the “fateful moment when Saussure deliberately broke the circuit of speech to establish a vantage point from which it is possible to study language as a system” (Johansen 1993: ix). Jakobson and Hjelmslev follow Saussure in working with two-component ‘signs without objects’ models: Jakobson’s *signans* denotes the material component of language and *signatum* its meaning (Jakobson 1968: 699); while in Hjelmslev’s glossematics, glossemes (signs) consist of *expression* (form) and *content* (meaning) elements, extendable along the plane of ‘substance-form’ (Hjelmslev 1943/1953).

Triadic models of the sign remedy this omission by including referents, the ‘things’ words stand for, in addition to the two elements of Saussure’s model, concepts and sound patterns. Peirce’s writing is pre-eminent here. Already in the early period of his work in the 1860s, Peirce was modelling the sign or ‘representation’ as a semiotic triad consisting of: the *sign-vehicle* (later *representamen*), i.e. the realm of WORD; the *interpretant*, the realm of THOUGHT; and *object*, the realm of THING (Atkin 2013). These ideas were developed in his interim account, presented in a lecture series at Harvard in 1903, to give a classification of signs totalling ten in number based on whether: the ‘interpretant’ is a *theme* or *dicent*; the ‘object’ an *icon*, *index* or *symbol*; and the ‘sign-vehicle’ a *sinsign*, *legisign* or *qualisign* (Peirce 1955: 101-104) – in this classification ‘a spontaneous cry’, for example, is a rhematic, indexical *sinsign* (Atkin 2013). In his final account, Peirce was working with an unwieldy system of as many as sixty-six classes of sign (Atkin 2013). Peirce’s fascinating work is not explored here in further detail, nor, though relevant, are the insights of semioticians such as Yuri Lotman (cultural semiotics), Algirdas Greimas (the semiotic square), Charles Morris (behavioural semiotics), Thomas Sebeok (biosemiotics), John Deeley (interpretive semiotics), Roland Barthes (connotation) and Umberto Eco (natural signs); instead, I turn to the triadic model of Ogden & Richards (1923/1949).

Ogden & Richards represent the three components as an equilateral triangle and name them ‘referent’, ‘thought/reference’ and ‘symbol’: *referent* refers to entities in the real world indexed by signs; *thought* or *reference* to ideas in the mind relating to those entities; and *symbol* to the physical vehicles of language, phonemes and graphemes, which represent thoughts and referents (Ogden & Richards 1923/1949: 11). This configuration is often referred to as the ‘semiotic triangle’. Although Ogden & Richards’ model has less status in semiotics circles than Peirce’s, I give it attention here because they represent the sign diagrammatically to show associations between the realms, and for the interesting and significant feature it offers, namely, a break in the line between *symbol* and *referent* to indicate that no ‘causal relation’ exists between them: “Symbol and Referent [...] are not connected directly [...] but only indirectly round the two sides of the triangle” (1923/1949: 11-12). According to Ogden &

Richards, a link between *symbol* (WORD) and *referent* (THING) is made only via *thought* when a symbol is “used by someone to stand for a referent” (1923/1949: 11). The broken triangle of Ogden & Richards is illustrated in Figure 1.

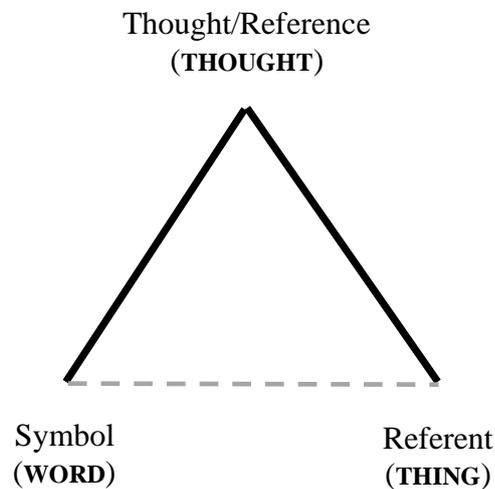


Figure 1 – Ogden & Richards’ (1923/1949: 11) triangular model of the sign

In order to arrive at the original linear triadic model of the sign I propose in this article, I start, like Ogden & Richards, with a triangle and, like them, make a break along one of the sides – but the break is along the side which joins *thought* and *referent* rather than between *referent* and *symbol*. I then open out the triangle, broken in this way, so the three components appear as points in a line. At one pole, there is THOUGHT, representing the realm of the mind, the most internal to the self; at the other pole, THING, representing entities and activity in the real world, the most external to the self; between THOUGHT and THING is WORD, the interface between the mind and the real world. This contradicts Ogden & Richards by asserting that there *is* a link between WORD and THING and that WORD is an interface between THING and THOUGHT.

The sequence of the ontological realms in my linear model is thus THOUGHT-WORD-THING, though I will be designating them COGNITION, LANGUAGE and REALITY in the rest of the article. I have chosen these terms over the simpler terms, or those of Peirce (*interpretant, representamen, object*) and Ogden & Richards (*thought/reference, symbol, referent*), to reflect the modifications I make in the next section and to avoid implying that the terms from the different frameworks correspond exactly or that they do not have problems or dissenters. My purpose in devising this linear triadic model is not for its own sake, but for the practical purpose of arriving at a discourse model of the sign which reflects better the relationship of the three realms to each other and to the reality they represent. The author’s linear triadic model is presented graphically in Figure 2.

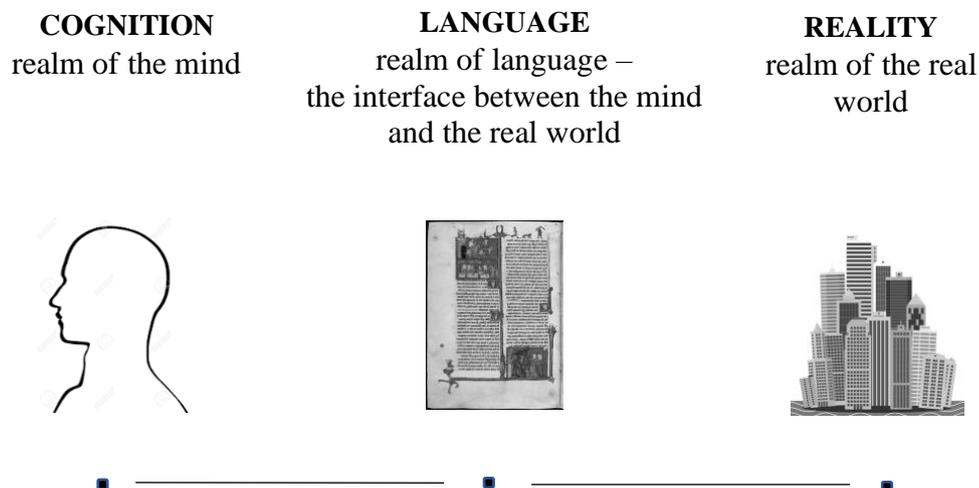


Figure 2 – The author’s linear triadic model of the sign

3. Modifying the basic linear model of the sign using concepts from cognitive grammar

In this section, the linear model of the sign proposed above is explored further by introducing three modifications, one to each of the realms of the sign, THOUGHT, WORD and THING. These modifications address objections which have been raised regarding modelling the sign as a triad and the nature of the three realms. The modifications I propose concern the following problematic areas: 1) the abstract nature of many referents; 2) the under-determinacy of signs in natural languages; and 3) the non-compositional nature of the meaning of signs in combination. Theory from cognitive linguistics, particularly Langacker’s Cognitive Grammar, is employed to develop these ideas. My purpose is to offer a robust theory-cum-model of maximum usefulness as an ‘explanatory tool’ to scholars and researchers in their enquiries.

3.1 Abstract things

It is understandable that discussions of linguistic signs tend to start with concrete objects in the real world but not all referents are physical things; referents include

qualities (adjectives), actions/states of being (verbs), modifiers (adverbs), and broad grammatical meaning represented by function words (prepositions, determiners, auxiliaries and logical connectives), in other words, all the concepts represented by traditional parts of speech. Our lexica are rich in representations of notions which are abstract, concepts such as INSPIRATION, TRADITION, PLAUSIBILITY, as well as those which are concrete, such as RIVER, SNAKE, VAN. The idea that an abstract category does not have a real-world object and therefore only involves two of the three realms may seem like a return to Saussure's 'signs without referents', where the realm of THING is not represented, but this is not the case – nor are we dealing here with what Peirce called 'thought signs', thoughts on their own without words or referents (Atkin 2013). Instead these entities can be characterized as meta-phenomena of the real world, phenomena we have access to indirectly through our senses. In this view, they *do* belong to the realm of THING, a view reinforced by the approach of cognitive grammar to grammatical classes, described below.

There are three main grammatical classes (or categories) in Langacker's cognitive grammar: there is a schema for nouns, a schema for verbs and a schema for categories where a non-processual (atemporal) relationship is the semantic pole (Langacker 1987: 214). The semantic pole of a grammatical class is determined schematically rather than prototypically, by how the concept is *profiled* rather than by its overall conceptual content (Langacker 2013: 98). Thus a noun is an expression which profiles a thing but is not limited to physical objects; a verb is an expression which profiles a process, tracking relationships through time; while relational classes (adjectives, adverbs, prepositions and particles) share with verbs in being relational but are non-processual (Langacker 2013: 99-100).

For Langacker, "a prototypical noun is one that names a physical object (e.g. *spoon, car, dog, umbrella*)" but events may be construed as abstract objects and realized with words, such as *earthquake* or *explosion*, through grouping and 'conceptual reification' (Langacker 2013: 94-95). An abstract thing can be seen as "a set of interconnected entities which function as a single entity at a higher level of conceptual organization" (Langacker 2013: 107). Thus an 'entity' can include things, relations, sensations, changes, locations, quantities, dimensions, etc. (Langacker 2013: 98). The noun schema "makes no direct reference to physical entities, but only to cognitive abilities, so its applicability to abstract things poses no intrinsic difficulty" (Langacker 2013: 108).

3.2 The semantic narrowing of words

The second modification I make to the linear model of the sign concerns under-determinacy. Under-determinacy, the incompleteness with which signs encode information, is a defining characteristic of natural languages and should be brought into the present model. Whether we are dealing with simple or complex entities, spoons or washing machines, signs give access to concepts only through a *partial* representation of the realities they stand for. Languages under-determine (under-refer/underspecify) out of necessity rather than through any defect of design, for if signs were to encode fully all aspects of every entity, the system would be overloaded and unusable. Partial encoding makes languages workable in the social settings they have evolved to occupy. It also makes possible translation and interpreting, the transfer of meaning from one language to another (AUTHOR 2019).

Many scholars have identified the significance of the partial nature of meaning making. For Kress, representation is always partial in the making and re-making (interpreting) of signs, “*partial* in relation to the object or phenomenon represented” but “*full* in relation to the sign-maker’s interest at the moment of making the sign” (Kress 2010: 71). Kress & Leeuwen maintain that “it is never the ‘whole object’ but only ever its criterial aspects which are represented” and that these “are represented in what seems to the sign-maker, at the moment, the most apt” (Kress & Leeuwen 1996: 6). Meaning making relies on pre-existing frames stored in the mind, referred to variously also as concepts, cognitive models, mental spaces, schemas and scripts. For Kress, frames are “essential for all meaning-making, in all modes” as “A *frame* defines the world to be engaged with; it excludes and it includes; and in doing that it shapes, presents the world according to the interest and the principles of those who *frame*” (Kress 2010: 149). The founder of ‘frame semantics’, Fillmore, maintains that a word cannot be understood without reference to an innate or learned frame of experience, and that to understand a concept “you have to understand the whole structure in which it fits” (Fillmore 2006 [1982]: 373). These are ideas few would disagree with.

The necessity of meaning making being partial brings with it a side-effect of great practical importance: it permits us to refer to the same scene in different ways. The word *sweater*, for example, suggests a garment which increases body warmth enough to make you perspire; *jersey* refers to the stretchy material it is made from; *woolly* (British English) indicates the material it is typically made of, wool; *pullover* reminds us that you pull the garment over your head to put it on; and *jumper* (British English) is from the French *jupe*, an item of clothing. In choosing which features we focus on when identifying a situation, we automatically draw attention to those features and make them ‘salient’. This highlighting/foregrounding is described by cognitive linguists in terms of

establishing a profile (figure) against a base (ground), and they see these choices not as arbitrary but motivated.

The profile/base distinction is part of the larger concept of *construal*, “the speaker’s choice among alternative ways of conceptualising and describing a scene” (Radden & Dirven 2007: 337). Construal is “our manifest ability to conceive and portray the same situation in alternate ways” (Langacker 2013: 43). It allows us to frame and structure concepts in different ways depending on what is profiled but also other dimensions, such as perspective, scale and scope, and level of specificity (Langacker 1986: 6-13). It is construal which makes ‘the code’ nuanced, flexible and fit for purpose. Construal is evident in how meaning becomes conventionalized in the lexicon, but equally in how meaning making is performed by speakers ‘on the fly’ and the linguistic resources they select to meet immediate communicative goals. It is also evident in pragmatic inferencing, where the (physical, interpersonal, cognitive or co-textual) context enriches the partially-encoded message of a speaker’s utterance. Incorporating construal and the under-determinate nature of natural languages into the model reinforces our understanding of what constitutes the realm WORD.

3.3 Complex thoughts

The third modification to the linear model of the sign proposed in this article concerns words in combination. Words rarely occur alone, and when they combine they set up meanings not wholly predictable from our knowledge of them as individual units. The un-analysability of fixed phrases is a key concept in the field of phraseology (Cowie 1998). Sinclair observed through the analysis of corpus data, made possible thanks to large databases becoming available for the first time, that two contrasting principles were at work when words are combined, the ‘open-choice’ and the ‘idiom’ principles (Sinclair 1991). Prefabricated units, conventionalized chunks of two or more words, or ‘lexical phrases’, such as *box office*, *cherry tomato*, *comfort break*, *glass ceiling*, *jet lag*, *job share*, *party piece*, *pigeon hole* and *swine flu*, are invaluable in everyday communication, both in terms of new linguistic resources and processing demands, and are an indicator of native-like proficiency. Rhyme and alliteration often signal that expressions are lexical phrases rather than expressions arrived at through free combination, such as the assonances in: *surf and turf*, a restaurant menu which contains both fish and meat; *prick and ping*, you ‘prick’ the film on a microwavable meal and a ‘ping’ indicates it is ready: and *flash to bang*, where ‘flash’ indicates the radicalization of an individual and ‘bang’ the committing of a terrorist act.

Cognitive linguists identify an even more basic principle, that of *construction*. In Langacker’s cognitive grammar, language consists of symbolic

structures, which have a phonological and a semantic pole; these combine into ‘assemblies’, with two or more assemblies being called a ‘construction’ – the symbolic structures *jar* and *lid*, for example, combine to form the symbolic assembly *jar lid* (Langacker 2013: 164-5). These are then built up into “more and more elaborate symbolic expressions” (Langacker 1986: 29). For this reason, Langacker’s cognitive grammar is described as a construction grammar, a category of grammars to which Goldberg’s *Construction Grammar*’ (1995) and Croft’s *Radical Construction Grammar*’ (2001) also belong. What is important about constructions and assemblies is that they have their own internal structure where “the composite structure is not merely the sum of the component structures” but “an entity in its own right [...] with emergent properties not inherited or strictly predicable from the components” (Langacker 2013: 164).

To summarize, far from undoing the basic division of the linguistic sign into the three ontological realms, THING, WORD and THOUGHT, the proposed modifications serve to reinforce them and acknowledge the structural complexity within each realm, making the model more robust and a better explanatory tool for linguistic research. The modifications made to the realms of the triadic sign using concepts from cognitive grammar consolidate the model by meeting criticisms of the model, while the linear arrangement reflects the reality they represent more faithfully than a triangular arrangement. The concept of reification was applied at the realm of THING to accommodate the notion of ‘abstract things’; the concept of construal was applied at the realm of WORD to accommodate ‘semantic narrowing’; and the concept of construction was applied at the realm of THOUGHT to accommodate ‘complex thoughts’. In order to reflect that the realms in the author’s model differ through their modifications to the earlier models I am naming the realms: REALITY, LANGUAGE and COGNITION. This is summarized graphically in Figure 3. In the next two sections, I give case studies to show the insights the model can give in the fields of grammar (Section 4) and figurative language (Section 5).

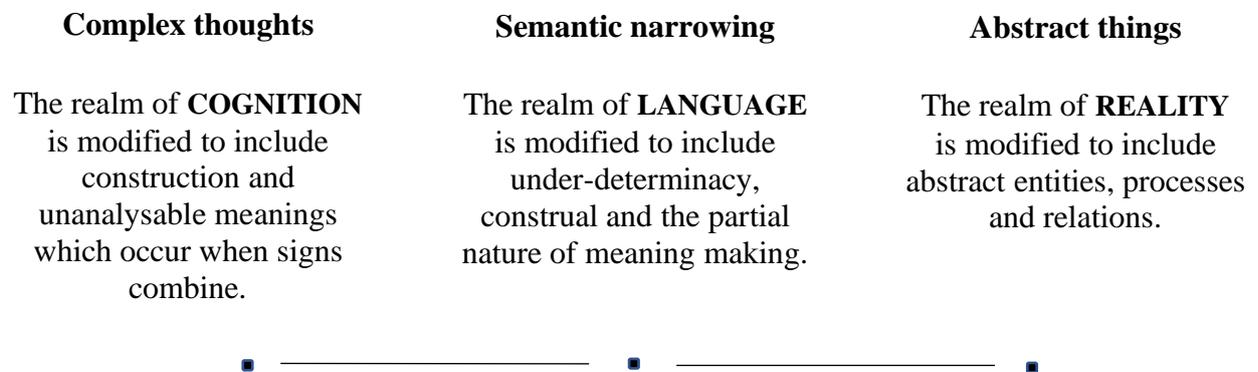


Figure 3 – Linear triadic model of the sign with modifications at each realm

4. Case Study 1 – Grammar

In this first case study, I look at grammar and how different approaches to grammar relate to the realms of the linguistic sign. Theorizing about language often leads to something which gets called ‘grammar’. As a consequence, there is a vast and bewildering array of different grammar systems to describe English, and many more when we consider other languages. Although numerous, the different systems fit (fairly neatly) into three broad categories: **GENERATIVE**, **FUNCTIONAL** and **COGNITIVE**. In this article, these three approaches are referred to collectively as the ‘Three Grammars’.

In Sections 4.1-4.3 below, I describe the essential tenets of the generative, functionalist and cognitivist programmes. The foundational texts of the three approaches, Chomsky (1957, 1965), Halliday (1985) and Langacker (1987), are employed to do this. In these early texts, we see these influential language theories emerging for the first time, like photographic plates developing in the darkroom. They represent three different schools, established by different individuals working at different times in different contexts, and were designed to do different things. It may therefore be questioned whether they should be considered together at all – and whether visual grammars such as Kress & Leeuwen’s (1996) are grammars. I feel it is legitimate to do so as the generative, functional and cognitive accounts are all systematic descriptions of language, attempts to understand the underlying principles which operate behind natural languages in

use. Following this definition, to call the three approaches ‘grammars’ is certainly more than incidental or a metaphor or pun.

The Three Grammars split out as being distinct because they represent three different foci within language description, each approach representing a shift to one of the ontological realms of the triadic model: the shift in GENERATIVE grammar is to LANGUAGE, in FUNCTIONAL grammar, to REALITY, and in COGNITIVE grammar, to COGNITION. As they present different foci they are related and complementary rather than competing. In Section 4.4, I compare the Three Grammars in terms of how they relate to the realms of the linear triadic model of the sign in more depth.

4.1 Generative grammar

Generative grammars explore language from a position shifted towards the ontological realm of LANGUAGE, emphasizing language as an autonomous, modular and self-contained system, where structure/form is the focus of interest over meaning. They are also, as a consequence, shifted away from language as communication in a real-world context. It was Noam Chomsky’s belief that ‘traditional grammars’ left “unexpressed many of the basic regularities of the language with which they are concerned” (Chomsky 1965: 5) and that a ‘mentalist’ linguistic theory, one which reveals “a mental reality underlying actual behaviour” (1965: 4), was needed. The grammar Chomsky devised to meet this need, outlined in *Aspects of the Theory of Syntax*, the foundational work of the generative programme, analyses language down to an underlying mathematical and logical core, an innate competence applying universally to all languages and involving a very small number of algorithmic rules for which there are no exceptions. It is a grammar which presents “a system of rules that in some explicit and well-defined way assigns structural descriptions to sentences” (Chomsky 1965: 8). Phrase-structure, morphophonemic and transformation rules, and parametric settings specific to each language, are added to a universal grammar of abstract principles. It is a grammar motivated by parsimony and learnability which emphasizes ‘well-formedness’ (1965: 3), ‘grammaticalness’ (1965: 11) and the ‘linguistic intuitions of the native speaker’ (1965: 3, 24).

There have been many developments in generative grammar since Chomsky’s early pioneering work; but, though many and varied, they all ultimately derive from the ‘standard theory’ of 1965. Many of these are not just modifications but new theories in their own right. Croft lists formalist theories which had active practitioners at the end of the twentieth century: “Minimalist Program, Montague Grammar, Relational Grammar, Head-Driven Phrase Structure Grammar and Lexical-Functional Grammar” (Croft 1998: 88).

According to Newmeyer, developments in formalism went in two directions: those led by Chomsky and his associates based on ‘principles and parameters’, particularly ‘government and binding’ and its sub-theories in the 1980s and ‘minimalism’ in the 1990s; and those led by other scholars, such as lexical-functional grammar, relational grammar, (generalized and head-driven) phrase structure grammar and categorial grammar (Newmeyer 1998: 11).

The shift of formal approaches towards the realm of LANGUAGE gives rise to descriptions of language (grammars) which are not usage based, not concerned with frequency or variation, not socially or culturally contextualized, and which do not offer a speaker/hearer model, and so lack many of the features which characterize ‘language as communication’. Forming utterances is viewed in terms of competence rather than performance: “A performance model must certainly incorporate a grammar; it is not to be confused with a grammar” (Chomsky 1965: 151). The model we are given does not therefore immediately provide us with a tool for describing discourse or features relating to idiolectic, interpersonal, social and cultural variation. This shift towards LANGUAGE not only means a shift away from representation of the real world, the realm of REALITY, but also a shift away from an in-depth examination of the mental processes associated with language manipulation, the realm of COGNITION.

4.2 Functional grammar

Functional grammars, in contrast, represent a shift towards the ontological realm of REALITY. They are concerned with the representation of human activity in the real world in all its manifestations. A functional grammar is a system first and then a structure, a semantic network of systems with the potential for representing real and imagined worlds in all their complexities. The grammar the late Michael Halliday presents in *An Introduction to Functional Grammar* (1985 and later editions) is “an extravagant theory, not a parsimonious one” (1985: xix), reminiscent of a thesaurus in its encyclopaedic breadth. “We shall define language as ‘meaning potential’: that is, as sets of options, or alternatives in meaning, that are available to the speaker-hearer” (Halliday 1973: 72).

This is a significant departure from Chomsky, and an approach opposite to traditional grammar’s, in being a grammar which starts with meaning rather than form, identifying forms first and then asking what those forms mean: “A language is interpreted as a system of meanings, accompanied by forms through which the meanings can be realized” (1985: xiv). A functional grammar is socially situated, characterizing language as ‘social semiotic’, offering a usage-based, performance model, and one which is statistical where “probabilities [...] are an important part of the grammar” (Halliday 1985: xxii). Here ‘functional’ indicates not only

‘meaning’ but purposeful meaning in its social context, ‘meaning in use’. As a consequence, it is a ‘natural grammar’ in the sense that grammatical sequences (syntagms or ‘wordings’) are meaningful and naturally configured (Halliday 1985: xv).

For Halliday, grammar is the “central processing unit of a language” (Halliday 1985: xxxiv), the key to “cracking the code” (1985: xxxi), a semantic grammar describing semantically-relevant choices. “Without a grammar in the system, it would be impossible to mean more than one thing at once. In order to understand how language works, therefore, we have to engage with the grammar” (1985: xxxv). It is a ‘choice’ rather than a ‘chain’ grammar, “a grammar of choices rather than of rules” (Halliday 1978: 4), concerned with paradigmatic choices and the full meaning potential of the language system, rather than the analysis of ready-made syntagmatic associations. Generative grammars are syntagmatic; functional grammars are paradigmatic. Instead of rules we are presented with networks of choices; instead of the top-down phrase-structure diagrams, representing immediate syntagmatic associations, we are presented with left-to-right branching diagrams, representing paradigmatic choice.

Halliday dispenses with the traditional divide between grammar and lexis, all linguistic resources being placed instead on the same continuum, “part of the same level in the code” (Halliday 1985: xiv). There is “only one network of lexicogrammatical options” which all lie on the same scale of ‘delicacy’, from less to more specific, where “the lexicon [...] is simply the most delicate grammar” (Halliday 1978: 43). All types of process and their sub-divisions (field) are included in the system, as well as all types of modality and expression of mood (tenor), and all information-structure and textual-cohesion phenomena (mode) – hence the designation ‘Systemic Functional Grammar’.

Each message, according to Halliday, involves a ‘process’ and each process “is either about doing, or about thinking, or about being”, which is further subdivided: “if it is about doing, this is either plain action or action on something; if acting on something it is either creating or dealing with something already created, and so on ...” (Halliday 1985: xiv). In the second edition of *An Introduction to Functional Grammar*, Halliday introduces a graphic showing the inter-relationships between the processes as a wheel (Halliday 1994:108 and cover). The processes are ordered, “they form a circle not a line” or, better, a sphere (though this would be difficult to handle); “our model of experience, as interpreted through the grammatical system of transitivity, is one of regions within a continuous space; but the continuity is not between two poles, it is round in a loop” (Halliday 1994:107).

What a functional grammar of a specific language looks like ultimately depends on the level of detail of the analysis. It provides a semantic map showing how language resources provide a network of interlocking systems of meaning,

simultaneously at different ranks and in a hierarchical relationship. *An Introduction to Functional Grammar* is midway between an abstract description of the networks of the system and a full description of English in all its detail. I have presented functional grammar through the lens of Halliday's grammar, but there is a very extensive body of scholarship under the umbrella of functional grammar which takes Halliday's ideas further for English and other languages. The tenets of Halliday's grammar hold for functional grammars generally; they represent a shift towards the realm of REALITY and away from the realm of LANGUAGE and COGNITION.

4.3 Cognitive grammar

The cognitive grammar Ronald Langacker sets out in *Foundations of Cognitive Grammar* (1987) is also a semantic grammar, and shares with functional grammar in being concerned with usage. What separates the two is that they are grammars with different emphases: functional grammar represents a shift towards the ontological realm of the REALITY, mapping how real-world contexts are realized in language; while cognitive grammar represents a shift towards the realm of COGNITION, exploring how the linguistic mind is configured and grammar as a vehicle of conceptualization relating to non-language mental activities. Or as Nuyts puts it: functional grammar equates meaning with communication and language functioning externally in the real world; while cognitive grammar equates meaning with conceptualization and the representation of thought through language (Nuyts 2005: 70-72).

In Langacker's grammar, the linguistic resources of syntax and lexis are seen as meaningful symbolic elements on the same spectrum (as in functional grammar), a continuum from schematic (grammatical) to specific (lexical) meaning: "Lexicon and grammar form a continuum of symbolic elements" (Langacker 1986: 13). Each symbolic unit has a semantic and a phonological 'pole' existing in semantic and phonological 'space' (Langacker 1987). These symbolic units combine to form 'assemblies', composite expressions which have unique internal structures. Assemblies of two or more symbolic structures are called *constructions* which speakers build up into more and more elaborate composite expressions (Langacker 1986: 29). A cognitive grammar of a language is an inventory of conventional symbolic units but one which is structured to indicate relationships between symbols (Langacker 1987: 489).

Langacker rejects the idea of any underlying hidden or 'deep' grammatical structure; "grammatical structure is almost entirely overt" (Langacker 1987: 27). Rather than generative rules explaining the combination of words and morphemes, the symbolic units themselves guide how language elements combine and by

identifying constructions as only weakly compositional, cognitive grammar rejects the significance of generative processes. There are no rules of combination; instead, generalizations about patterns of usage, ‘schemas’, partially or fully ‘sanction’ the combining of symbolic units in new utterances, some patterns being more ‘entrenched’ (conventionalized) than others. Rules are replaced by lists, the idea of well-formedness by the notion of entrenchment, and compositionality by construction – hence the designation of Langacker’s grammar as a ‘construction grammar’.

This account presents cognitive grammar through the lens of Langacker’s foundational work. As with the other grammars, this early work encapsulates the basic tenets of the cognitive approach, but the literature in this area is extensive and complex, including other construction grammars, such as Goldberg’s ‘construction grammar’ (1995) and Croft’s ‘radical construction grammar’ (2001). They have in common that they are all ventures in language description involving a shift away from the realms of REALITY and LANGUAGE towards the realm of COGNITION.

4.4 The Three Grammars and the value of a semiotics perspective

I have outlined above how a semiotic perspective can provide a heuristic tool for understanding why scholars have given different accounts of grammar and why grammars fall into three types. I have indicated in Sections 4.1-4.3 that each of the three approaches to grammar, overviewed through the lens of the foundational works of Chomsky, Halliday and Langacker, reflects a shift towards one of the three ontological realms of the sign: GENERATIVE grammar, a shift towards the LANGUAGE, language as an object of study in itself at the interface between the mind and the outside world, viewing language as modular and concerned only peripherally with meaning and representation; FUNCTIONAL grammar, a shift towards things and events in the real world and imagined versions of them, the realm of the REALITY, in order to understand the world of action and how meaning is realized by the language system; and COGNITIVE grammar, a shift in the opposite direction, towards language processing in the mind and exploring the common ground between language processing and other mental activities, the realm of COGNITION. The relationship between the Three Grammars and the linear triadic model of the sign is represented graphically in Figure 4.

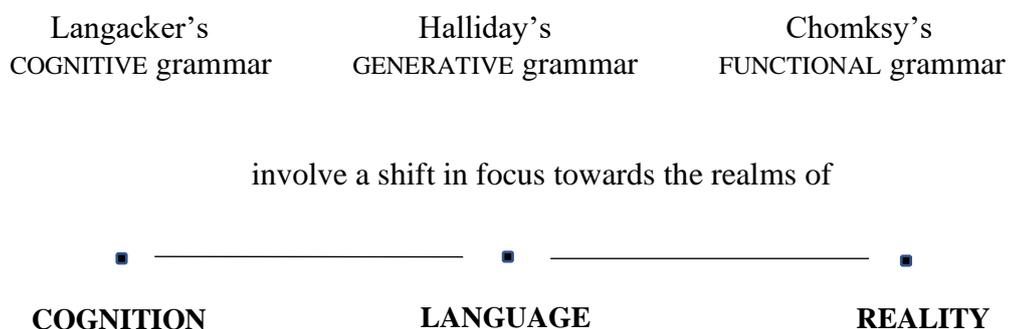


Figure 4 Relationship between the Three Grammars and the realms of the sign

Generative, functional, cognitive is the order the Three Grammars came into the world – and the order I encountered them in my own studies and research. All three grammars were responses to contemporary thinking: Chomsky’s generative grammar was a reaction to the dominant behaviourist ‘blank slate’ approach to language and language acquisition of the time; Halliday’s functional grammar was a reaction to Chomsky’s non-semantic, non-usage approach; while Langacker’s cognitive grammar came from a dissatisfaction with the limited explanatory power of generative grammar and the difficulty of devising a semantic grammar along generative lines. It was the generative semantics versus interpretative semantics controversy, dubbed *The Linguistics Wars* (Harris 1993), which led to the founding of cognitive linguistics by George Lakoff, Ronald Langacker and others. Langacker comments, rather despairingly, “This framework must indeed have been radically distinct, for mainstream generative theorists proved completely incapable of understanding it. To this very day, they have no idea what it is all about and why it might be interesting” (Langacker 2005: 101).

I have identified the Three Grammars as representing shifts each towards one of the ontological realms of the sign, but their authors would not have seen their accounts as operating in just one realm without awareness of the other aspects of the sign. Generative grammar is not concerned only with visible structure but also the mental processes behind the manipulation of language – and is sometimes described as ‘cognitive’ for that reason; functional grammar is concerned as much with mental processes as it is with material processes in the external world – the ‘wheel’ graphic, referred to earlier, includes the ‘world of consciousness’ (sensing) and the ‘world of abstract relations’ (being) as well as the ‘physical world’ (doing) (Halliday 1994: 108); and cognitive grammar does not ignore language’s materiality or its role in

representation. All three grammars are necessarily describing the same reality but approach the task from different perspectives. Semiotics provides us with a tool for understanding these fundamental differences.

The Three Grammars have other features in common. Generative grammars are not the only ‘universal’ grammars; functional and cognitive grammars are also ‘universal’ as they apply across languages: generative grammar by identifying a common innate mental ability for manipulating language forms, even though those forms differ from language to language; functional grammar by identifying metafunctions in the social world common to all speech communities, but realized differently from language to language; and cognitive grammar by virtue of the common organization of our brains, a common body plan and a common experience of the physical world through our senses, viewing language as a mental phenomenon, embodied and experiential, residing in the neurons of the brain.

A criticism sometimes levelled at generative grammar is that it is ‘reductive’ as the methodological commitment of formalism involves “valuing maximally general analyses with a minimal number of types of primitives” (Croft 1998: 90), but this is a criticism which can be levelled at all three grammars because all theories ‘reduce’. Functional and cognitive grammars, although both maximalist in their breadth, are reductive: Halliday’s grammar reduces the language system to metafunctional strands and Langacker’s to symbolic assemblies. It is only with a narrowed focus of attention that we are able to make general statements about real-world phenomena.

Describing grammar in terms of a deep and a surface structure is not shared by all three approaches, however. Halliday’s ‘deep grammar’ refers to the totality of the systems of language, where “All structure is surface, and all systemic choice is deep” (Kress 1976: xix), while Chomsky’s ‘deep structure’ (discarded in later theories) is “a much more abstract representation of grammatical relations and syntactic organization” than the ‘surface structure’ (Halliday 1976: 88). For Langacker, there is no deep or hidden structure as all structure, and therefore also meaning, is explicit (Langacker 1987: 27).

I have characterized the Three Grammars as complementary rather than competing, shifts in focus rather than mutually exclusive versions. We are not required to make a choice to favour one system over the others, as all three are sincere and committed attempts to understand language and how it works in theoretical terms, written for their own sake, so the burden is not on the inventor to propose applications. Halliday’s functional grammar was the only grammar of the three devised expressly as an instrument of analysis, text analysis – but as the focal shift of this grammar is towards the realm of REALITY, this is perhaps not surprising. That said, all three grammars have found practical applications and have provided the basis for theories in areas such as child language acquisition, language teaching and translation/interpreting. For the purposes of analysing data, one approach over

another will suggest itself and the different foci of the Three Grammars determine the potential of each grammar as a research tool.

5. Case Study 2 – Figurative language

In this second case study, I look at how scholarship in the area of figurative (non-literal) language – metaphor and metonymy – reflects the three ontological realms of the linguistic sign, and how the linear triadic model developed in this article provides a useful framework for making sense of the complex literature in this area. Research in recent decades has initiated a significant change in standpoint to one where metaphor and metonymy are just as much about thought as they are a matter of language, seeing figurative thought patterns as the embodiment of our direct experience of the physical world through the senses, rather than incidental or decorative. This new perspective means that now all three realms of the sign, COGNITION, LANGUAGE and REALITY, are involved in understanding and defining figurative language.

5.1 Metaphor

Metaphor was depicted traditionally as decorative language which belonged principally to the province of literature. New theory was developed first in poetics with the introduction of terms such as ‘tenor’, ‘vehicle’ and ‘ground’ (e.g. Leech 1969) and the distinction between conventional and novel metaphor. In language teaching, metaphor traditionally equated with an interest in idioms, the colourful conventional metaphors students like to learn and teachers like to teach, which often have limited practical usefulness as linguistic resources because of their specificity, and therefore command little space in the syllabus. The early work in poetics and language teaching reflect a view of metaphor associated with isolated instances on the page, confined, in other words, to the ontological realm of LANGUAGE.

Lakoff & Johnson’s (1980) revolutionary *Metaphors We Live By* triggered a radical change of direction. Metaphor now became characterized very differently: as essential rather than decorative; significant in all spheres of life, not only the domain of literature; and, most importantly, a phenomenon of thought as much as of language, originating from our common experience of the physical world through the senses. Then came a new move which combined metaphor studies with discourse analysis. This work shows how emergent metaphor and discourse metaphor play a role in communication in numerous different contexts in the real world. The Pragglejaz Group developed a system for metaphor detection in text and discourse

called MIP (Pragglejaz Group 2007). Other scholars developed Metaphor-Led Discourse Analysis (Cameron & Maslen 2010), corpus linguistic protocols for studying metaphor in discourse (Deignan 2005), and frameworks for analysing discourse phenomena involving metaphor and metonymy across longer stretches of language (Denroche 2018).

The new direction which Lakoff & Johnson took is often referred to as the ‘cognitive turn’ in metaphor studies and represents a move towards the mind and the realm of COGNITION; the perspective which the discourse-analysis approach to metaphor represents could be described as a ‘discourse turn’, a move towards activity in the real world and the realm of REALITY. These different perspectives have resulted in fierce debates around what metaphor is, each camp vehemently fighting their corner. An indicator of the maturity of Metaphor Studies as a discipline is reflected in the ability of contemporary scholars to embrace the many and diverse approaches to metaphor which now exist. Steen and Cameron are two scholars who bring different ways of framing and defining metaphor together into a single narrative. Steen depicts metaphor as “not all thought”, “not all language” and “not just language and thought”, but also a phenomenon which is interactive and ‘emergent’ in communication in the real world (Steen 2008). Steen offers a three-dimensional model of metaphor in which the dimensions are ‘naming’, ‘framing’ and ‘changing’, the domains of language, cognition and communication, corresponding to the three ontological realms of the sign, LANGUAGE, COGNITION and REALITY.

For Cameron, “the idea of metaphor encompasses multiple phenomena”; metaphor is many things: linguistic, cognitive, embodied, affective, sociocultural and dynamic (Cameron 2010: 3-7). This acknowledges that metaphor spans many fields of practice and that it is relevant to all three ontological realms of the sign: the realm of the LANGUAGE is reflected in the focus on metaphor as linguistic; the realm of COGNITION is reflected in metaphor as cognitive, embodied and affective; and the realm of REALITY is reflected in metaphor as sociocultural and dynamic. Cameron’s multi-dimensional model of metaphor is given as a preliminary to introducing the principles of ‘metaphor-led discourse analysis’ (MLDA), a brand of discourse analysis which focusses on metaphor, and a framework which emphasizes the involvement in communication of all three realms and constant interaction between them.

Not only does overviewing the field in this way give us a clearer and more truthful picture of the field but it takes the sting out of the tail of many of the debates found in the literature. It introduces a sort of academic ‘conflict resolution’ allowing divergent theories to coexist. I see this as part of what could be described as a ‘metonymic theory of knowledge’ where individual theories are complementary rather than competing, offering valid but partial truths, the parts coming together to give a coherent whole, a ‘polytheism’ of multiple theories (Denroche 2015: 185-186).

5.2 Metonymy

The study of metonymy has seen a trajectory similar to the rise of metaphor, though occurring somewhat later and in its shadow. In recent decades, as a consequence of the cognitive turn, metonymy has gone from being considered a language phenomenon to one as much concerned with thought and embodiment; from a decorative, poetic trope to a mental process, essential in conceptualization and ubiquitous in everyday communication (Denroche 2015). For Radden, metonymy plays a role right across the linguistic hierarchy, “at all levels of linguistic structure: phonology, lexical grammar, morphology, grammar, and pragmatics” (Radden 2005: 11), signs themselves are of necessity metonymic because they under-specify (Radden & Kövecses 1999: 24). These are all phenomena where a ‘figure’ is profiled against a ‘ground’. Langacker maintains that grammar is metonymic because the information it explicitly provides is less precise than the connections which speakers intend and hearers apprehend (Langacker 2009: 46).

Recognizing the importance of metonymic thinking, metonymic forms and metonymic relations in the real world in everyday communication demonstrates that metonymy, like metaphor, is involved across all three ontological realms. Reference to the three realms in understanding metonymy therefore suggests itself as a useful framework. This is reflected in the title of Littlemore’s (2015) overview of the field of Metonymy Studies, *Metonymy: Hidden Shortcuts in Language, Thought and Communication* where ‘language’, ‘thought’ and ‘communication’ correspond to the realms of LANGUAGE, COGNITION and REALITY. While this is implied in Littlemore’s book title, Radden and Kövecses use the triad explicitly in their classification of metonymy types (Kövecses & Radden 1998, Radden & Kövecses 1999). Their “typology of metonymy-producing relationships” (Kövecses & Radden 1998: 43) takes the semiotic triangle of Ogden & Richards as their starting point and looks at which ontological realms are involved and which ‘routes’ are taken to access targets (Kövecses & Radden 1998: 40). They rename the realms *thought*, *symbol* and *referent* of Ogden & Richards’ model *concept*, *word-form* and *thing/event*, and gloss them “the world of ‘concepts’, the world of ‘forms’, in particular, forms of language, and the world of ‘things’ and ‘events’” (Radden & Kövecses 1999: 23).

They identify three types of metonymy: SIGN METONYMY, where *concept* is accessed via *form*; REFERENCE METONYMY, where *thing/event* is accessed via *form* or *concept* and CONCEPT METONYMY, where *concept* is accessed via *concept* (Radden & Kövecses 1999: 28-29). They show that metonymic phenomena occur in all ontological realms and that pairings can cross ontological realms (Kövecses & Radden 1998: 41). They observe that ‘concept’ metonymies differ from ‘sign’ and ‘reference’ metonymies in operating within the same realm (and in being reversible) and not across realms (Radden & Kövecses 1999: 29).

This framework shows how a semiotic approach helps clarify inconsistencies and issues which arise in the metonymy literature. Many debates in Metonymy Studies dissolve when viewed in terms of misunderstandings between scholars with different approaches to defining metonymy, or incompatibilities between cognitive, linguistic and social ‘real-world’ perspectives. For example, a conventional metonymy such as *pay with plastic* to mean ‘use a credit card’ will be a metonymy to those taking a linguistic (or LANGUAGE) approach but not necessarily to those taking a cognitive (or COGNITION) approach, as the expression, if recognized as conventionalized, will be processed ‘directly’ and will not involve metonymic processing; while in discourse, when a metonymic idea organizes a long stretch of language, it may well be that no actual examples of linguistic metonyms are present although the ‘real world’ (or REALITY) is being viewed metonymically (Denroche 2018: 11-12).

5.3 Metaphor, metonymy and the Three Grammars

In this section, I bring together the topics of the two case studies by looking at how the Three Grammars treat figurative (non-literal) language (metaphor and metonymy). To do this, I return to the foundational texts of Chomsky, Halliday and Langacker. Metaphor is mentioned just once in Chomsky’s *Aspects of the Theory of Syntax* in a historical overview of French philosophers, where we are advised that no special grammatical rules are needed for the description of ‘figurative speech’ (Chomsky 1965: 7). As metaphor is a semantic phenomenon as well as a formal one, it is destined to have only marginal relevance for generative grammar – metaphoric language is “outside the linguistic system, i.e. it is simply ill-formed” (Panther & Thornburg 2009: 12). In formal accounts, if mentioned at all, metaphor is characterized as aberrant or meaningless rather than central and meaningful, and metonymy is not mentioned at all. Panther & Thornburg make an analogy between the Chomskyan and Gricean solutions to figurative language: both view it as ‘deviant language use’ where rules are broken, but while for the former, selectional restrictions are violated, for the latter, the maxim of quality, ‘be truthful’, is flouted (Panther & Thornburg 2009: 12-13).

In *An Introduction to Functional Grammar* Halliday defines metaphor as a word “used for something *resembling* that which it usually refers to; for example [...] *stem the tide*” (Halliday 1985: 319), thereby framing metaphor as non-standard; while metonymy is not discussed at all. Metaphor has no privileged position in functional grammar, a metaphor and a literal ‘equivalent’ representing separate categories only if the lexicogrammar shows systemic differences (Halliday 1985: xx). Metaphor is viewed in terms of choice, an alternative resource within the

potential of the language system for representing activity in the real and imagined worlds.

There is a significant exception to this, and that is ‘grammatical metaphor’, to which a whole chapter of *An Introduction to Functional Grammar* is dedicated (Chapter 10 in Halliday 1985 and later editions). Grammatical metaphor is understood as the substitution of congruent (typical) forms with less congruent (metaphorical) forms, such as replacing *The cast acted brilliantly* with *The cast’s brilliant acting* + verb (Halliday 1993: 70). There are two types of grammatical metaphor in this account, ideational (metaphor of transitivity) and interpersonal (metaphor of mood); both involve the substitution of one grammatical class/structure for another, ‘identifying clauses’ typically replacing ‘material processes’ (Halliday 1985: 321). These substitutions lead to greater ambiguity and a higher lexical density (Halliday 1993: 69), features typical of written English and the speech of professional registers. Such rewordings are not really metaphor at all in the cognitive linguistics sense, as they do not involve mapping from a source to a target domain, and are perhaps better described in terms of metonymy and ‘metonymic shift’ (Denroche 2015: 73-74).

The picture is very different in cognitive linguistics where metaphor has always played an important role. Lakoff & Johnson’s (1980) revolutionary work recognized metaphor as basic to conceptualization and communication, and metaphoric language as the realization of metaphoric thought patterns (conceptual metaphors), involving mappings from a (usually) concrete source domain to a more abstract target domain, such as GOOD IS UP or LIFE IS A JOURNEY; these in turn are structured from more basic image schemas, such as the ‘containment’, ‘path’ and ‘centre-periphery’ schemas, which reflect our common sensory experience of the world. Cognitive scholars propose that grammar itself is figurative, but metonymic rather than metaphoric (Langacker 2009), and that metonymy and metaphor motivate lexicogrammatical structure (Panther & Thornburg 2009). The grammatical metaphors of functional grammar may be viewed in terms of conceptual metonymies, such as THINGS FOR ACTIONS, motivating distributional properties of function words, grammatical morphemes and word classes (Panther & Thornburg 2009: 16).

This section has illustrated how the linguistic phenomenon of figurative language (metaphor and metonymy) is treated very differently and to differing depths by the Three Grammars, and how a semiotic framework can lend clarity in a complex topic area.

6. Concluding remarks

There have been two main aims to this article. The first was to show the validity of returning to basic and firmly established linguistics concepts, in this case the models of the sign of Peirce, Saussure and Ogden & Richards, and to show how these models can be developed in the light of new knowledge to provide new tools for linguistic research. I have presented an original linear triadic model of the sign with modifications to each of the ontological realms drawing on cognitive grammar. These reflect the abstract nature of items in the lexicon, the partial nature of meaning making in language, and complex ideas resulting from combining elements. They are: conceptual reification to show how ‘abstract things’ can be included in the realm of REALITY; construal to explain ‘narrowing’ at LANGUAGE; and construction to show how ‘complex thoughts’ can be incorporated at COGNITION. By addressing objections to the basic triadic model of the sign, the model is refined to make it more suited as a research tool.

The second aim was to show that a semiotics perspective can give clarity in complex and multidisciplinary fields within linguistics by providing a heuristic tool to elucidate and resolve theoretical differences and contrasting positions. This I have demonstrated through two case studies. The first maps grammar systems onto the linear triadic model of the sign and explains why grammars fall into three broad categories. Each of the three approaches to grammar, the generative, the functional and the cognitive, glossed as the Three Grammars, represents a shift to one of the three points of the semiotic triangle, LANGUAGE, REALITY and COGNITION respectively. The second case study illustrates how the vast literature on figurative language (metaphor and metonymy) can also be made sense of by mapping the scholarly literature onto the realms of the sign.

This article proposes that semiotics and models of the sign are directly relevant to contemporary research, as they offer explanatory tools which aid us in understanding and overviewing complex, multi-disciplinary topic fields within linguistics. It has shown that new theory can revitalize old theory, in this case, concepts from cognitive linguistics used to modify and consolidate the ontological realms of the sign. It was suggested that cognitive grammar is particularly useful in this respect as it offers a naturalistic grammar which is embodied and grounded in experience. Cognitive grammar, by focusing on mental processes, gets closer to production, the making and management of signs, and meaning-making taking place as performance in real time.

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