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Book review

Toward a Cognitive Semantics
Leonard Talmy, The MIT Press, Cambridge, MA, 2000

Leonard Talmy is a leading light of cognitive linguistics, known especially for his work in cognitive semantics, an approach to linguistics that aims to describe the linguistic representation of conceptual structure. The two-volume set ''Toward a Cognitive Semantics'' is a collection of 16 of Talmy's papers spanning roughly 30 years of his thinking and writing. The papers have been updated, expanded, revised, and arranged by concept into chapters. This review of the volumes is tailored to a non-specialist linguist or cognitive scientist interested in a general orientation to the contents and presentation.

In the introduction common to the two books, Talmy situates cognitive linguistics within the discipline of linguistics and identifies his primary methodology as introspection. The ''overlapping systems model'' of cognitive organization is outlined, in which cognitive systems, such as language, vision, kinesthetics, and reasoning can and do interact. Talmy proposes ''the general finding that each system has certain structural properties that are uniquely its own, certain structural properties that it shares with only one or a few other systems, and certain structural properties that it shares with most or all the other systems. These last properties would constitute the most fundamental properties of conceptual structuring in human cognition.'' The reader is guided to specific chapters in which the linguistic system is compared to other cognitive systems of visual perception, kinesthetic perception, attention, understanding/reasoning, pattern integration, cognitive culture, and affect.

Each volume of the set is about 500 pages long, with eight chapters organized into three or four major sections. The first volume, ''Concept structuring systems'' expounds Talmy's vision of the fundamental systems of conceptual structuring in language. Part 1 presents a theoretical orientation, Part 2 addresses configurational structure, Part 3 discusses the distribution of attention, and Part 4 describes force dynamics. The second volume, ''Typology and process in concept structuring,'' turns from conceptual systems themselves to the processes that structure concepts and the typologies that emerge from these. Part 1 looks at the processes on a long-term scale, longer than an individual's lifetime, that deal with the representation of event structure. Part 2 considers the short-term scale of cognitive processing with a look at online processing, and Part 3 addresses medium-term processes in the acquisition of culture and the processing of narrative.

In volume 1, Chapter 1, ''The relation of grammar to cognition,'' is a greatly revised and expanded version of a 1988 paper, itself an expansion of papers from 1977 and 1978. This paper details the ''semantics of grammar'' in language, toward the larger goal of determining the character of conceptual structure in general. Talmy proposes that the fundamental design feature

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of language is that it has two subsystems that together produce a cognitive representation. The closed-class grammatical system contributes conceptual structure, and the open-class lexical system provides conceptual content. Semantic notions in grammatical elements are characterized by neutrality with respect to such factors as magnitude and shape; Talmy characterizes reference as topological rather than euclidean, resulting in a ''rubber sheet geometry'' which can be ''stretched'' (I-26). Grammatically-specified notions group together into certain conceptual categories, here called *schematic categories,* and these schematic categories group together within larger conceptual structures called *schematic systems.* Three schematic systems, with their component schematic categories, are described in detail. The configurational structure system treats delineations of space and time; the perspective system is concerned with the location, distance, mode and direction of the point from which an entity is regarded; and the distribution of attention system deals with patterns of attention on different parts of a scene, with respect to backgrounding and foregrounding, parts and wholes, and selection of a baseline or framing level. Grammatically-specified notions can be nested within a system and across systems. The basic building block of grammatically-specified notions in the linguistic system is proposed as the unit with counterparts in other cognitive systems.

The first chapter in the second section, Chapter 2 ''Fictive motion in language and 'ception' '' is a moderately revised version of a 1996 paper. This chapter proposes an account of the cognitive systems involved in perceiving and describing unreal phenomena. Cognitive representations are discussed as more or less fictive (versus factive) with respect to their perception and conception (''ception'') in the visual system and to their description in the linguistic system. The domain of motion is used as representative of how this process takes place. Fictive motion is a motion in which the perceived ''mover'' does not actually move, as in *The mountain range runs from Canada to Mexico,* or *The scenery rushed past my window.* Conceptual features, such as the presence or absence of factive motion, the fictivity of the observer, and whether the observer moves or scans the phenomenon are identified as contributing to a taxonomy of categories of fictive motion. For example, *The sun is shining into the cave* is different from *He was gazing into the cave*, in that an observer can see a sunlight-path but not an imaginary gaze-path. Talmy proposes 13 gradient parameters related to palpability for categorizing experience and ''ception''. The study addresses the relationship of the theory of general fictivity to metaphors of factive temporality and fictive spatiality, such as *Christmas is coming*, but excludes non-spatial metaphors, such as *Her mood went from bad to good*. Other connections addressed include kinesthetic perception, seen in gesturing ''as the crow flies,'' and folk iconography of cultural structures, as in Superman's X-ray vision.

Chapter 3, ''How language structures space,'' is a substantially revised and expanded version of a 1983 paper. Talmy proposes that language represents conceptual structure at two levels. There is an expository level that draws from the stock of open-class or lexical items to convey conceptual content, and there is a second ''fine-structural level'' that draws from closed-class or grammatical elements and provides the structural skeleton of a conceptual domain. This chapter examines how the fine structural level of language ascribes structure to space and the objects within it, demonstrated primarily with an examination of English prepositions. In English, for example, one can say that a wagon is *across the field* but not *apit the field* or *abarn the field.* One reason for the difference is that *across* encodes a general geometric configuration or conceptual schema, while *apit* and *abarn* do not. Schematicization is proposed as a fundamental cognitive process that selects certain details or aspects of a referent scene and disregards others. The fine structural level of language represents space and spatial objects as schematic, localizing and otherwise relating primary and secondary objects (Figures and Grounds) in abstracted or

idealized ways. Basic properties of individual schema and relationships between and among schema are described, and an appendix presents a detailed list of ''motion-aspect formulas'' excerpted and updated from a 1975 paper. An example is ''a point MOVE FROM a point, at a point of time. (The napkin blew off the bed/out of the box at exactly 3:05.)'' These schematic motion-aspect formulas are proposed as universal primitives of more complex characterizations of stasis and movement.

The first chapter in the next section, Chapter 4 ''The windowing of attention in language,'' is a moderately revised version of a 1996 paper that explores the selective distribution of attention with respect to a conceptual complex. This cognitive process underlies the foregrounding (windowing) and backgrounding (gapping) of particular aspects of a situation. In language, windowing and gapping are achieved by explicit mention and omission, respectively, of elements that language users conceive as central or core to a given event or event type. An example of path windowing begins the discussion. Consider a suitcase that falls from the cargo bin of an airplane. The event has initial, medial and final phases, such as *It fell (out of the plane) (through the air) (into the ocean);* any of these phases can be windowed or gapped in alternate conceptualizations. Conceptual splicing occurs in cases of medial gapping, in which initial and final phases are seamlessly connected *(out of the plane) (into the ocean)*. Windows of attention can occur multiply, as embedded within another or with equal status, and can respond to cultural factors and goals, as in participant-interaction windowing. The difference between *He met a woman. Her name was Linda,* and *He met a woman. Her name is Linda,* is that the latter more pointedly windows attention on the woman (and not some background element of his and her interaction). Patterns of windowing and gapping in the spontaneous signing gestures of a deaf child, in response to and in spite of elaborated gestural communications from parents, are proposed as evidence of universal cognitive factors related to selective foregrounding and backgrounding. The distribution of attention is described as a type of fundamental schematic system that, along with other systems like configurational structure and force dynamics, constitute the fundamental delineators of conceptual structuring in language.

Chapter 5, ''Figure and Ground in language,'' is a greatly revised version of a 1978 paper. The distribution of attention is explored here with respect to the language of cognitive anchoring, in which one concept is established as a reference point for another concept. The reference point is called the Ground, the concept to be anchored is called the Figure, and the pair of concepts is exemplified in a variety of linguistic elements to identify their relative characteristics. In a single clause, the pair can be represented by two nouns, *The bike (F) is near the house (G),* or by something like a verb root and a verbal affix, as in Atsugewi motion descriptions. In complex sentences, the pair of concepts can be represented in main and subordinate clauses to express particular temporal, causal, or other types of relationships. Talmy posits a universal tendency for the earlier of two events to be understood as the reference point (G) and to be expressed in a subordinate clause, while the later event is expressed in the main clause and requires referencing (F): *She awoke (F) upon his arrival (G)* but not *He arrived (F) immediately-before-and-occasioning her awakening (G).* In general terms, the Figure is more dynamic, understood as movable or variable in space or time, while the Ground is more stationary. However, the designation of F and G can depend as much on factors of attention and expectation as on qualities of relative variability and stasis, as in *My sister (F) resembles Madonna (G)* and *Madonna (F) resembles my sister (G).* The chapter closes with brief discussions of Figure and Ground with respect to other proposed case systems and as a factor in language acquisition.

The final chapter in this section, on distribution of attention, is Chapter 6, ''Structures that relate events.'' This is a wholly rewritten and expanded version of a 1978 paper and deals with the

family of syntactic structures that can represent a Figure event in relation to a Ground event. The method, termed semantic alignment, lines up the semantic structures across various formulations of complex and coordinate structures to identify and categorize the syntactic resources of cross-event relationships. Consider for example the (asserted, foregrounded) Figure event *they stayed home* in relation to the (presupposed, backgrounded) Ground event *they were feeling tired.* Syntactic relations between F and G event clauses are diagrammed in simple tree structures to facilitate comparison. We find complex sentences with a subordinating conjunction *They stayed home because they were feeling tired,* with a zero subordinator and gerund *Feeling tired, they stayed home,* and with an initial subordinate clause *Because they were feeling tired, they stayed home,* and we find coordinate constructions, here with a connective *They were feeling tired, and they stayed home*. Talmy identifies nine different syntactic structures for representing a Figure event in relation to a Ground event in English. He then presents 15 cross-event relations, including 'reason', 'concession', 'agentive causation', 'conditionality' and 'substitution', and identifies which of the nine possible syntactic structures can be used to express each one. The chapter continues with a closer look at semantic, pragmatic, and processing factors at play. Cross-linguistic comparison yields an interesting typological phenomenon: languages can be classed as having or not having a coordinate construction with connective (like English coordinate constructions linked with *and* or *but*), here called a conjunctional copy-cleft structure.

Chapter 7, ''Force dynamics in language and cognition,'' is a moderately revised and expanded version of a 1988 paper. ''Force dynamics'' (FD) deals with how entities interact with respect to force: exertion of force, resistance to force, and the overcoming, blocking, and removing of force. Linguistic examples of the notion include *cause, let, make, prevent, refuse, manage to,* and *refrain from.* FD is identified as a semantic category not only pervasive in many levels of language (grammatical, lexical, rhetorical), but also in our commonsense ideas about physics and psychology. Two force elements, parallel to the spatial–temporal pair Figure and Ground, are used throughout the chapter to illustrate the category. The Agonist represents the focal force entity, the element with a tendency toward action or toward rest, and the Antagonist represents a secondary or opposing force, with the tendency to cause, aid, hinder or block the force of the Agonist. FD patterns are diagrammed and discussed as variations in the relative force of each force element at specific phases of interaction, as in *cause* versus *prevent*, or *start Ving, keep Ving,* and *stop Ving*. FD is extended to psychological reference, such as *refrain from, resist, try,* and to complex aspectual patterns, such as *fail, succeed*, and *finally V.* There is extensive discussion of modals as a syntactic category for the expression of FD, reflecting such interacting forces as ability, tendency, authority, and social pressure. Talmy argues for FD as a fundamental conceptual organizing category, in language and in other cognitive domains, one which relates more directly to the kinesthetic system than to the visual system, and he concludes the chapter with detailed suggestions for several lines of further research.

The final chapter in the first volume is Chapter 8, ''The semantics of causation,'' a moderately revised version of a 1976 paper. The paper was originally written within a transformational syntax and generative semantics framework, and it retains many of the formalisms. The aim is to identify the basic semantic elements and basic causative situation types as represented in language, and then to show in a step-by-step fashion how these basic elements combine to form increasingly more complex causative situations. One basic element is the autonomous event, a non-causative situation, such as *The vase broke.* Another is the basic causative situation, defined as two simple events (one causing, one caused) and the causal relationship that holds between them. *The vase broke from a ball rolling into it* is a resulting-event causative in which the autonomous ''break'' conflates with a deep causative verb RESULT, as RESULTed-to-break. *I*

broke the vase by rolling a ball into it is an agent causative, with the main verb considered as AGENTed-to-break. Other basic elements are participants Agent, Actor, and Undergoer, which in this approach all refer to sentient beings. They differ with respect to intentionality, which is criterial for Agency, and in whether or not the action ''happens to'' the participant. These differences are demonstrated in *I hid/misplaced/lost the pen*. Basic elements are then combined, embedded, and concatenated to illustrate an extensive series of complex causative situations, such as onset, serial, or enabling causation; agentive, self-agentive, and chained agentive situations; caused agency and chained caused agency. The structure of psychological causativity is considered, as when external events impinge upon the sentient entity or are cognized by that entity, causing his or her subsequent action or state. All examples are in English, but the semantic elements and situations are to be considered as part of universal semantics, with cross-linguistic differences expected in syntactic realizations and in the portions of causative situations that are optionally or obligatorily expressed.

The first chapter in the second volume, Chapter 1 ''Lexicalization patterns,'' is a much revised and expanded version of a 1985 paper. Patterns of relationship between semantic and grammatical structure are identified by examining which semantic categories are expressed by which surface constituents in the languages of the world. A motion event is analyzed as including semantic elements of Figure (the entity in motion), Ground (a reference object), and Path (the path followed by the Figure with respect to the Ground). In English, the semantic category of Path is usually encoded in a particle following the main verb, as in *The bottle floated across the canal,* while in Spanish, the Path is usually encoded in the verb root, as in *La botella cruzó el canal flotando* (*the bottle crossed the canal floating*). Conversely, in these two languages, the manner of motion is expressed in the main verb in the English sentence (*floated*), and in a subordinate verbal form in the Spanish sentence (*flotando*). This shows that a single semantic category can be expressed in different surface constituents: in a particle, affix, adposition, or other morpheme in a sister relation to the verb (a ''satellite''), or in a verb root. Under this analysis, English and Spanish represent two types of languages, with the Path element as the diagnostic. English expresses Path in a satellite, making it a satellite-framed language, while Spanish expresses Path in the verb, making it a verb-framed language. The remainder of the chapter is dedicated to a demonstration of how different semantic categories are expressed (individually, as co-occurring sets, or ''conflated'' into a single element) in different surface structures in a variety of languages. The meaning-form relationships are found to occur in specific patterns, such as the verb-oriented and satellite-oriented patterns above, which are proposed as typological and universal. The cross-linguistic comparison facilitates an assessment of the relative salience of a particular semantic element, judged according to the surface structure site, and of any diachronic changes as semantics and syntax alter over time in the history of a language.

Chapter 2, ''Surveying lexicalization patterns,'' brings together analyses from the 1985 paper above, a 1987 paper, and Talmy's 1972 dissertation, to survey the material presented in the previous chapter. The first section begins with a table of surface structure occurrence patterns for 35 semantic categories in languages of the world, and each category is then described and illustrated. The next section presents a list of 67 typological and universal principles abstracted from the discussion in Chapter 1. These principles address properties of language organization, of semantic organization, of surface forms, and of relations between the semantic and surface levels. The final section details satellite elements and polysynthetic verbs in Atsugewi, the language of Talmy's fieldwork studies, because of their rich semantics and their significance for the cross-linguistic typology presented in Chapter 1.

Chapter 3 is a much revised and expanded version of a 1991 paper. In ''a typology of event integration,'' Talmy argues for three major claims involving a complex event structure called a *macro-event* and a binary typology based on lexicalization patterns. First, one considers the psychological reality of the *macro-event* as an event complex that functions in the conceptual organization of language. A macro-event may be unitary but is often composed of a main event, later termed a ''framing event'', and a subordinate event, later termed a ''co-event''. Using the example *The bottle floated across the canal*, introduced above, the main event is the motion across the canal, and the subordinate event is that the bottle moves by floating. Here, the main event describes the path of motion, while the subordinate event describes the manner of motion. The term ''event integration'' describes the conceptual integration or conflation of the two types of events into the over-arching macro-event. Next, the global character of the macro-event is proposed, as applied to five types of events: motion, state change, temporal contouring, action correlating, and realization. A ''core schema'' or distinguishing property is identified for each event type, such as *path* in a motion event, *changed property* in a state change event, or *fulfillment* in a realization event. Within each event type, the main or framing event encodes the core schema, and the subordinate or co-event contributes an additional semantic factor. And finally, the surface realization of the core schema, across event types, is used to further motivate Talmy's famous binary typology of verb-framed and satellite-framed languages. A language that expresses the core schema (path of motion, changed property of state change, fulfillment of realization, etc.) in the verb is a verb-framed language, and a language that expresses the core schema in a satellite is a satellite-framed language.

The final chapter of Part 1 is a moderately revised version of a 1982 paper. Chapter 4, ''Borrowing semantic space: diachronic hybridization,'' aims to explain what happens when a language borrows meanings but not morphemes from a donor language. To ''borrow semantic space'' means to incorporate patterns of subdivision within a semantic domain into existing surface structures, often ''hybridizing'' the semantics into novel formations, extensions, and redistributions of polysemy. This is illustrated by contrasting the types of concepts and types of grammatical categories that encode the same semantic domains in English and Atsugewi. In the body of the chapter, patterns of accommodation, non-accommodation, and creative adaptation are exemplified primarily by Yiddish, a Germanic language that was subsequently under heavy influence from Slavic. For example, the use of Path satellites to express aspectual perfectivity (eat up, write down) is optional in Germanic but is now obligatory in Yiddish as a result of influence from Slavic. In addition, Yiddish has developed a unique construction that conflates deixis (Germanic) together with the manner of motion (Slavic). The chapter concludes with a presentation and discussion of nine principles that may govern the processes of semantic borrowing in general.

Chapter 5, ''Semantic conflict and resolution,'' is a moderately revised and expanded version of selected sections of a 1977 paper. The goal is to describe the online cognitive processes and operations that occur in a discourse processor (a listener, reader, signee, etc.) when there are multiple specifications of a single referent. That is, characteristics of a certain referent are specified in ways that give rise to more than one representation, as in *John went home to his hotel.* Multiple specifications create a conflict for semantic processing that may be resolved in one of the five ways. One specification can be *shifted* such that meaning components of a ''basic'' form are stretched or canceled, as when ''across'' describes a journey without endpoints, *the tumbleweed rolled across the prairie,* or a journey along the longer axis of a two-dimensional Ground object, *I walked across the pier (from end to end).* Specifications can be *blended*, as in metaphors, or *juxtaposed,* especially for comic purposes, as in *slightly pregnant*. Novel or

problematic cases of semantic conflict can be *juggled,* in which elements of a basic schema are rearranged to achieve a semantically acceptable solution, or in fact semantic processing may be *blocked* by the addressee's inability to shift, blend, juxtapose, or juggle her way to resolution. Resolution strategies rely on a basic divergent model, in which non-basic forms emerge from a privileged or unmarked form, rather than an even-array model, in which inventories of equal-status forms are co-present for selection. Talmy stresses the importance of the concept of ''basicness'', here defined intuitively as the privileged form from which other forms deviate.

The online cognitive processing on the part of the discourse producer is addressed in the following paper, Chapter 6. ''Communicative goals and means: their cognitive interaction'' is a moderately revised version of a 1976 paper that examines how the speaker, writer, signer, or gesturer resolves conflicts among competing communicative goals vis-a-vis the available expressive means. Talmy first presents a list of candidate goals pertaining to the content, structure, transmission, reception, comprehension, and context of a communication that identifies many of the factors at play. He then introduces a representative list of expressive resources, such as ideational, structural and relational, sonic, temporal, and kinesic. The body of the chapter presents a range of examples showing possible strategies for resolving conflicts among communicative goals within the limitations of available expressive means. These solutions include case frame manipulation, the sequencing of information for a particular effect, adjusting for the recipient's background knowledge, and the use of repair. The chapter ends with a short section on language comparison and language change.

Chapter 7, ''The cognitive culture system,'' is a substantially revised and expanded version of a 1995 paper. It presents a cognitivist analysis of the transmission and maintenance of culture grounded in the premise that each individual has a separate neurophysiological system in which and through which cultural patterns are acquired, exercised, and transmitted. Talmy argues that these three functions are part of an innately structured and innately determined processing program. As such, the cultural cognitive system parallels the Chomskyan view of the linguistic system and especially the ''language acquisition device''. Although Talmy's analysis differs from the nativist view in the degree to which linguistic and cognitive systems are assumed to be integrated and interactive, he argues against the views of ''theories of practice'', conversation analysis, and other cognitive theories with respect to various emergent phenomena and so-called Whorfian effects. The evidence presented is primarily anecdotal and introspective, and the intent is to present a framework for future research.

The final chapter is ''A cognitive framework for narrative structure,'' a greatly revised and expanded version of a 1995 paper. ''Narrative'' is construed in a broad sense, to encompass self-narrative and individual understandings of events or history, as well as conversational, written, or pictorial narrative. The aim of the paper is two-fold. First, a framework is developed for characterizing the structures of a narrative cognitive system as a pattern-forming cognitive system that connects a series of experiences. The discussion examines five domains (the producer of narrative, the experiencer, the narrative work itself, the spatio-temporal physical domain, and the cultural context) that are acted upon by structural properties (temporal, spatial, causal, and psychological) and by a set of five major parameters or organizing principles. Second, this cognitive framework of the narrative cognitive system is proposed as a tool with application to the larger body of Talmy's work, a ''working grid for heuristic purposes'' to investigate not only narrative but also to explore the ''properties of conceptual structuring that apply in common across many or all the major cognitive systems that constitute human mental functioning insofar as these are accessible to consciousness''. The five parameters address relationships among the various domains and strata, the degree of differentiation among them, issues of scope and

granularity, of combination, and of evaluation. The ''working grid'' is presented as a work in progress, a broad-brush analytic tool to be refined and revised in continued research.

This two-volume set of collected papers showcases beautifully the rich typological framework developed by one of the discipline's finest minds. Each chapter can stand alone and be appreciated separately, but a careful reading of at least the introduction and Chapter I-1 will reward the reader with a deeper understanding of the larger goals: the linking of grammatical structure and conceptual structure, the situation of language within the set of cognitive systems, and the ramifications of the overlapping systems model itself. The astonishing scope of Talmy's theories is revealed in the breadth and depth of analysis of the linguistic expression of space, time, causation, and interaction.

As is often the case, the devil may be in the details. At various points in this work, Talmy characterizes his program as the following: ''The present study is offered largely as a contribution to the kind of organizational thought that can help direct a fuller program of observation'' (II-342). The embedded hedges are perhaps too modest, but the point should be well taken.

Many discussions and proposals are presented with few supporting data, and at times the data that are used to illustrate points require a willing suspension of disbelief even for a native speaker of English. Unfettered introspection, even in the mind of a genius, can leave the reader wondering how and when a particular concept might be expressed in any of the world's languages. The occasional nod to cursory grammatical checks or experimental methods can be equally unsatisfying, as in this excerpt (with original italics and bold text):

> Speakers exhibit differences, however, over the degree to which such expressions evoke an actual sense of conceptualization of motion—what can be called **experienced fictive motion**. Thus for the same instance of constructional fictive motion, some speakers will report a strong semantic evocation of motion, while other speakers will report that there is none at all. What does appear common, though, is that every speaker experiences a sense of motion for *some* fictive-motion constructions (I-104).

The reader is not told what examples were checked, how semantic evocation was defined or measured, nor how many speakers with what backgrounds were surveyed.

The task of mapping Talmy's intricate semantic structures to his myriad surface constituents is not an easy one. Every possible nuance is given a label but is not necessarily identified with a referent. The final section of the final chapter presents one example of the enormous strengths and weaknesses of Talmy's explanation. A ''working grid for heuristic purposes'' is presented as a framework for characterizing both narrative structure in language and conceptual structure in non-linguistic cognitive systems. The proposed grid is broad-brush and all encompassing, composed of embedded lists and multiple arrays of interacting concepts with labels but with virtually no operationalization. The reader is confronted, for example, with a list of subparameters of the parameter of ''degree of differentiation'': among these, in this order, one finds the *approximate-precise* parameter, the *vague-clear* parameter, the *sketchy-elaborated* parameter, and the *implicit-explicit* parameter. Exactly how one is to distinguish among these subparameters, and to transpose and apply them in the global picture of overlapping systems of human cognition, is left for others to sort out.

And this may be the point. The terms, categories, structures and relationships of Talmy's framework provide rich and copious fodder for usage-based studies. Talmy excels at presenting abstract structure and at inspiring others to contribute clarifications of the content. Twenty years later there are still arguments about exactly what constitutes a ''satellite'', as the typology of verb-framed and satellite-framed languages is applied, improved and expanded by hundreds and

perhaps thousands of linguists using experimental methods and discourse studies in languages throughout the world. Last but certainly not the least, much of the explanation throughout the two volumes is based on English. The intuitive rightness or wrongness of the theories presented here must be tested and argued from a usage-based, crosslinguistic perspective.

In summary, none of these criticisms refutes the importance of this immense contribution to our understanding of language and conceptual structure. Talmy takes the giant, imaginative, even speculative steps that are absolutely crucial for the advancement of any human endeavor, and he provides the concepts and vocabulary to argue about, for, against, within, and beyond his theories, for generations to come.

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