

Toward a Cognitive Semantics
Volume I: Concept Structuring Systems
Volume II: Typology and Process in Concept Structuring

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Cambridge, MA: The MIT Press
 (Language, speech, and communication series), 2000, volume I: viii+495 pp, volume II: viii+565 pp; hardbound, ISBN 0-262-20120-8 (volume I), 0-262-20121-6 (volume II), 0-262-20122-4 (the set), \$60.00 per volume, \$110.00 the set

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Talmy is a pioneer of cognitive linguistics and something of an icon. His most important papers from 1972 to 1999 are re-presented here organized in terms of their subject matter. All papers have been revised, and most expanded. However, they are not particularly well integrated in this massive work, which combines patches of brilliance with unnecessary wordiness and repetition—it needed a stern editor.¹ Volume I, consisting of an introduction and eight chapters, is “concerned with the patterns in which and the processes by which conceptual content is organized in language” (I.2). Volume II, consisting of the identical introduction and (a different) eight chapters, presents typologies for the structure of concepts, proceeding to on-line processing of these in culture and narrative. Talmy’s viewpoint is that “the relation between a linguistic expression and something in the world cannot be direct but must, in effect ‘pass through’ the mind of the language user” (I.309, n. 14). Cognitive systems—language, perception, reasoning, affect, attention, memory, cultural structure, and motor control—share some fundamental properties as well as each having unique structural properties; they are not autonomous like Fodor modules (I.16). “Semantics simply pertains to conceptual content as it is organized in language” (I.4). Conceptual content includes affect and perception—only accessible through introspection, which must be employed with “controlled manipulation of linguistic material” (I.5)—that is, correlation with other findings across languages and other sciences. Talmy pays closer attention to meaning-form mappings than do many writers on semantics. He is best known for bringing the notions of Figure and Ground—a schematic system of attention—into linguistics in the early 1970s. “In Figure-Ground organization, the entity that functions as the Figure of a situation attracts focal attention and is the entity whose characteristics and fate are of concern. The Ground entity is in the periphery of attention and functions as a reference entity used to characterize the Figural properties of concern” (I.12–13). It is within this framework that the book is written.

¹ There are inconsistencies; for example, there is no explanation when it is first mentioned of Atsugewi’s affiliation (it is a Hokan language of Northern California). Abbreviations are only occasionally explained. There are many minor typos. Also, I disagree with many of Talmy’s grammaticality judgments—which would lead me to different analyses of a small portion of his material.

Chapter I.1, on the relation of grammar to cognition, covers many topics in a fairly shallow manner. Some of them could have been written up in more extensive studies as separate chapters. Talmy's general point is that grammar is "the determinant of conceptual structure" (I.22). Closed-class grammatical forms structure conception (which sounds Whorfian); open-class lexical forms contain content. Talmy identifies four lexical classes: ideophones, nouns, verbs, adjectives (in the two volumes he says nothing further about ideophones and rarely mentions adjectives). Controversially, he claims that all adverbs are derived (I.23)—for example, *I dried the cups carefully* derives from *I was careful in drying the cups* (I.393). Interestingly, Talmy applies cognitive categories that have traditionally been restricted to either noun or verb to both lexical categories; for example, countability is usually limited to nominals but, using the terms "uniplex" (singular) and "multiplex" (mass and plural), he applies them to verbs (I.49–50). He correlates count with punctual aspect, collective with iterative aspect, mass with durative aspect (I.95, n. 12).

On a theme that recurs throughout the work, Talmy compares static and motile perspectives (I.68):

- (1) There are some houses in the valley.
- (2) There is a house every now and then through the valley.

Chapter I.2 is on fictive motion and "ception"—the latter a useful neologism superordinate to both conception and perception. Fictive motion is demonstrated by the motion perceived "in successive flashes along a row of lightbulbs as on a marquee" (I.99) and in (3), where the fence has fictive motion and factive stationariness, and (4) where the scenery does so.

- (3) This fence goes from the plateau to the valley.
- (4) The scenery rushed past us as we drove along.

Fictive motion with factive stationariness is more common than the reverse (e.g., *The students get younger every year*), reflecting a cognitive bias toward dynamism. This seems to be at odds with a later claim that "stationariness is basic for an observer" (I.133), manifest in the pre-Renaissance belief that the heavens move around Earth and (5)–(6).

- (5) The stream rushes past my house.
- (6) *My house rushes past the stream.

Chapter I.3 is on how languages structure space. Talmy's pioneering work has inspired many others and a lot has been written on this topic since the 1970s. Talmy's notions of Figure and Ground have been widely adopted.

The Figure is a moving or conceptually movable entity whose site, path, or orientation is conceived as variable the particular value of which is the relevant issue.

The Ground is a reference entity, one that has a stationary setting relative to a reference frame, with respect to which the Figure's site, path, or orientation is characterized. (I.184)

Figure properly includes the participant role of “theme,” extending the idea to clauses within complex sentences that do not clearly hold a participant role within a clause structure. To anyone familiar with the relevant literature, there is little new in this chapter, which presents a detailed and formal account of motion and stasis in space and time. The appendix (I.245–252) offers the most succinct account to be found anywhere.

Chapter I.4 examines the windowing of attention—that is, placing “a portion of a coherent referent situation [event frame] into the foreground of attention by explicit mention” (I.257). The rest is “gapped” (backgrounded). An event frame is demarcated by a boundary enclosing a region of coherence, corelevance, and connectivity. They include paths, causal chains, cycles, participant interactions and interrelationships such as Figure-Ground, factual-counterfactual. Different types of complement occur within the event frame: obligatory, optional, and blocked. Outside the event frame are optional adjuncts (I.263); for example:

- (7) I spent \$50 on this book [*from the clerk] at the store
 OBLIGATORY OBLIGATORY OPTIONAL BLOCKED OPTIONAL ADJUNCT

The different possibilities offered by windowing select different parts of the common ground (I.269).

MAXIMAL WINDOWING:

- | | | MEDIAL | INITIAL FOCUS OF ATTENTION |
|-----|-------------------|------------|----------------------------|
| (8) | My bike is across | the street | from the bakery. |
| (9) | Jane sat across | the table | from John. |

MEDIAL GAPPING = “conceptual splicing”—cf. (8)–(9):

- (10) My bike is across from the bakery.
 (11) Jane sat across from John.

INITIAL GAPPING—cf. (8)–(9):

- (12) My bike is across the street.
 (13) Jane sat across the table.

There is an excellent analysis of causation (I.272). Cross-linguistically, bodily actions and the means of causing can readily be omitted; for example, *I broke the window* (I.279). As Talmy says in another context “Linguistic structures, in effect, ‘chunk’ the complexities and continuities of occurrence into this simplified schema” (I.457).

I have grave doubts about Talmy’s account of counterfactuals (which courageously ignores most of the literature). One reason for doubt is found on page I.293, where Talmy glosses $A(not-P)$ as “What actually happened [= A] is that [$not-P$] it is not the case that I went to the party” which he says is “equivalent to $\sim A(P)$ ”. But $\sim A(P)$ is identical with $not-A(P)$, so Talmy is claiming, in effect, “What actually happened is that it is not the case that I went to the party” is true only if “What didn’t actually happen is that I went to the party”. If we reinterpret this as $(A \rightarrow not-P) \leftrightarrow (not-A \rightarrow P)$, it is false. However, if we read Talmy’s “ $\sim A(P)$ ” as $not-(A \rightarrow P)$, then it is true that

$\text{not-(}A \rightarrow P) \rightarrow (A \rightarrow \text{not-}P)$ —loosely speaking “What didn’t actually happen is that I went to the party” entails “What actually happened is that it is not the case that I went to the party” (but not vice versa).

Chapter I.5 is on Figure and Ground, and there is not a lot new here. The standard examples such as (14) being preferred over (15) are found together with more interesting constraints such as that on *while* in (17).

- (14) The bike [F] is in front of the house [G].
 (15) ??The house [G] is behind the bike [F].
 (16) Her father died [F] while she was studying overseas [G].
 (17) *She was studying overseas while her father died.

There is a very interesting semantics for prepositions and coordinating conjunctions in the following Chapter I.6 (I.351–352). This chapter reviews many structures and lexical forms that relate Figure to Ground events. On the model of (14), Talmy generates many semi-acceptable nominalizations such as (18), which presumably means (19) (I.349). Can’t Figure-Ground relations be handled any other way?

- (18) Her going home [F] was after her stopping at the store [G].
 (19) She went home after stopping at the store.

Talmy identifies what he calls “copy-cleft sentences” (see discussion I.370–377), italicized in (20).

- (20) They were feeling tired; (but) they went out $\left\{ \begin{array}{l} \textit{anyway.} \\ \textit{despite that.} \end{array} \right.$

Copy-clefts are sort of proforms; for example, *that* in (20) can be expanded to *the fact that they were feeling tired*. In a copy-cleft, the Figure always comes second. Example (21) is a complex sentence and (22) is its copy-cleft counterpart.

- (21) They stayed at home [F] because they were feeling tired [G].
 (22) They were feeling tired [G], so they stayed at home [F].

It is suggested that the copy-clefts may be easier to process (I.382–383). Talmy claims that “languages appear to fall into two typological categories on the basis of whether they have or lack conjunctive copy-cleft structure” (I.404), but this is not demonstrated for more than a small handful of languages.

Talmy identifies an “Inclusion principle” (I.379).

The unmarked (or only possible) linguistic expression for a relation of temporal inclusion between two events treats the larger, containing event as Ground and the smaller, contained event as Figure. Where the complete syntactic form is a full complex sentence, the two events are in the subordinate and the main clause, respectively.

Similarly in a causative: the causing event is Ground and the result is Figure.

Table 1
Components in force dynamics (simplified).

	AGONIST		ANTAGONIST			
CAUSATIVE	-force	-motion	+force	+motion	Ant moves Ago	<i>The ball rolled in the wind.</i>
DESPITE	+force	-motion	-force	+motion	Ant fails to move Ago	<i>The shed stood up to the gale.</i>
DESPITE	+force	+motion	-force	-motion	Ant hinders Ago	<i>The ball rolled despite the long grass.</i>
BLOCK	-force	+motion	+force	-motion	Ant blocks Ago	<i>The ball was stopped by the incline.</i>

Chapter I.7 is on force dynamics, “one of the pre-eminent conceptual organizing categories in language” (I.461). “Force dynamics covers the range of relations that one entity can bear to another with respect to force” (I.10). Force dynamic verbs include *make, get, stop, let, keep, help, refrain from, exert oneself to, try to, manage to, fail to, resist, yield to, withstand, urge, persuade, refuse* (I.425–440). The focal force entity is “Agonist”, the entity opposing it “Antagonist” (I.413); see Table 1.

There are some problems with Talmy’s discussion of modals. For instance, he wrongly equates root modal with deontic modal (I.443). The root meaning of *can*, for example in *I can speak Swahili* is cognate with Scots *ken, know, canny, cunning*. The deontic meaning has to do with permission—cf. *Yes, you can go to the movie if you’re back home by midnight*.

Chapter I.8 examines the semantics of causation, analyzing increasingly complex causatives. Talmy proposes an underlying syntactic structure in which semantic components and their interrelations are explicitly indicated, and these are systematically correlated with surface forms. This very comprehensive account of causatives should be read by everyone working on them. It is one of the best chapters in the book.

Turning to Volume II, Chapter II.1 is on lexicalization patterns—systematic relations between meaning and form. It looks at semantic components, their various modes of combination, and the effects of their different locations in surface sentences. The chapter begins by examining semantic categories lexicalized in the verb root; for example, there is a conflation of MOVE and manner in English *slide, roll, bounce, swing, creak, rush, twist*; a conflation of MOVE and cause in *blow, pull, boil, kick, flick, chop, saw* (II.28). Motion is characteristic of Figure; Ground rarely if ever gets conflated. Talmy makes a detailed semantics of motion and to a lesser extent location verbs in English, Spanish, Atsugewi, and a few other languages. There is a survey of how different languages handle being in a position, getting into a position, and putting into a position (II.78–84).

What others call “semantic primitives” Talmy calls “deep morphemes” (II.37):

A deep morpheme represents a concept that is believed to be both fundamental and universal in the semantic organization of language. A mid-level morpheme represents a particular conceptual complex that consists of a deep morphemic concept together with certain additional semantic material.

Chapter II.2, which surveys lexicalization patterns, is an appendix to the previous chapter. Except for Section 4 on Atsugewi cause satellites and polysynthetic verbs, most of the content is to be found elsewhere in these two volumes. (“Satellites” are manifest by verb particles in English, affixes in many languages, verb complements in Chinese. Talmy classifies many verbal classifiers, for example, in Atsugewi, as satellites.)

Chapter II.3 gives a typology of event integration. A “macro-event,” an event complex, is “fundamental and pervasive . . . amenable to conceptualization as a single fused event” expressed by a single clause (II.213). For example, *I broke the window* may be the chunked version of *I took up a stone and threw it and it broke the window*—as remarked earlier. Five macro-event types are these (contrast the verb particle/adverbial): Motion: *The ball rolled in*. Change of state: *The candle blew out*. Temporal contouring: *They talked on*. *She stopped talking*. Action correlating: *She sang along*. Realization: *The fugitive was hunted down*. (II.214)

In “verb-framed languages” (e.g., Romance, Japanese, Bantu, Mayan), the activating process and core schema is in the verb; the support event is in an adjunct (the satellite): for example, Spanish *La botella salió flotando* [the bottle exited floating]. In “satellite-framed languages” (e.g., English, Chinese, Ojibwa, Warlpiri), the activating process and supporting event are in the verb; the core schema is in the satellite and/or preposition; for example, *The bottle floated out* (II.223).

Chapter II.4, “Borrowing semantic space: diachronic hybridization,” identifies Slavic semantic influence on Yiddish, then generalizes to semantic borrowing across languages without sufficient ground for doing so (II.316–318). For instance, Talmy suggests that no language will lose distinctions under influence of a language that does not have them; but this isn’t always true for classifier systems in the world’s languages. The chapter has a somewhat out-of-place but nonetheless interesting list of differences in semantic organization between English and Atsugewi (II.294). Yiddish took over morphemes from Slavic using Germanic morphs. For example, “Russian *na-* expresses not only ‘accumulate by Ving’ but also ‘fill by Ving’ and, with the reflexive, ‘V to one’s full capacity’. And Yiddish *on-* has the same three meanings” (II.299). It turns out that Yiddish *on-*, derived from German *an-*, is not synonymous with Russian *na-*, but overlaps it in meaning. Clearly Yiddish *on-*, and other morphs and morphemes, have developed independent meanings over time (II.304). In relevant contexts, Yiddish has an obligatory perfective aspect prefix, just as Russian does. However no Slavic suffixes were adopted (II.312). Here follows a completely empty statement: “A structure in another language can be incommensurate enough to a potential borrower that neither the structure nor sometimes even the meanings expressed by it will be acceptable” (II.313). It doesn’t explain or predict anything further than that a structure in the donor language has not been borrowed!

Chapter II.5 is 14 pages on semantic conflict and resolution. What little it contains that is new should have been included in Chapters I.1 or I.2.

Chapter II.6 is on how to correlate possibly conflicting communicative goals with the available means of expression (II.337). Talmy recognizes that communication often has interpersonal as well as ideational purposes, but he fails to mention the work of Halliday or Grice and their followers. He is unusual in recognizing in a scholarly work that individuals vary in their ability to communicate (II.342). The excellent list of communicative goals (II.343–344) is unfortunately discussed without additional insight.

Chapter II.7, “The cognitive culture system,” is on what is universal, what is individual, and what is innate in the expression of culture. Talmy’s main point is that “culture is a highly organized cognitive construction” (II.374). Unfortunately he only elaborates on the blindingly obvious: culture is acquired from those around us during our early years (cultural development parallels language development) (II.377); we exercise cultural practices in our communities; and we pass on culture to the young. He lists (from Murdock [1965]) 72 universal categories of culture (e.g., age-grading, sexual restrictions, [II.376]), which seem acceptable. Animals, even nonhuman primates, brought up with humans never adopt human culture—which seems to indicate an in-

nate predisposition on our part. Talmy recognizes that an individual may react against his or her culture, but not that this is always in a very limited sphere. He emphasizes the individual variations that lead to cultural change, but doesn't make enough of the chicken-and-egg nature of culture: an individual is a product of their cultural environment as well as a contributor to its development.

Chapter II.8 presents a cognitive account of narrative structure. "Th[e] narrative cognitive system would generally function to connect and integrate certain components of conscious content over time into a coherent ideational structure" (II.419). There is nothing new in this chapter. The content might offer a useful review of narrative or discourse structure for a complete neophyte; but the language Talmy employs would exclude many a young undergraduate. It is a disappointing end to the book.

Toward a Cognitive Semantics makes a useful reference work. It was a good idea to collect 30 years' work together, but the items of real value could probably have been pared down to fill a single volume. One general criticism is that Talmy often makes universalist claims for cognitive patterns and processes in language with very little cross-linguistic exemplification or support. But this, I suppose, leaves research for others to do.

Reference

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Keith Allan's research interests focus mainly on aspects of meaning in language, with a secondary interest in the history and philosophy of linguistics. He sees language as a form of social interactive behavior, believing this to be an important consideration in any thorough account of meaning in natural language. His book *Natural Language Semantics* has just been published (Blackwell, 2001). Allan's address is Linguistics Department, Monash University, Victoria 3800, Australia; e-mail: keith.allan@arts.monash.edu.au; URL: <http://www.arts.monash.edu.au/ling/ka.shtml>.