Path to Realization: A Typology of Event Conflation
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0. Introduction. Three basic findings converge synergistically in this study. The first finding is that, in the underlying conceptual organization of language, there is a major inclusive type of event complex -- composed of certain kinds of simplex events in certain relationships -- that perhaps universally is also amenable to conceptualization as a single fused event and, accordingly, to expression by a single clause. While Talmy (1972, 1985) had described such an event complex and its "conflation" into a single clause in the expression of Motion, it is now possible to demonstrate the existence of a generic category of such event complexes that is both extensive and fundamental and to characterize the general structure of the event complex in rather precise terms.

The second finding is that one of the simplex events within the event complex, the "framing event", can now be seen to encompass as many as five otherwise quite distinct types of event. While Talmy (1985) had seen a parallelism in this regard between Motion and change of state, it is now evident that there are three further types of framing event with parallel semantic and syntactic properties: events of "temporal contouring", "action correlating", and "realization". Of these further types, action correlating is newly introduced here, while temporal contouring and realization have been discussed previously but neither as framing events nor even as conceptually separable events.

The third finding is that languages fall into two typological categories on the basis of where they characteristically express the schematic core of the framing event -- in the verb or in a satellite to the verb. While this typology formed part of the typology for Motion that was set forth in Talmy (1985), it is now apparent that it extends as well to all five types of framing event and, indeed, thereby constitutes the main evidence for grouping the five event types together.

For an immediate idea of the kind of phenomenon to be treated, the following English sentences illustrate event complexes with each of the five types of framing event in turn. And they illustrate the typological category in which the schematic core of the framing event is expressed by a satellite. Thus, this satellite -- here, the final verb particle -- expresses: the path in an event of motion, as in *The ball rolled in*; the aspect in an event of temporal contouring, as in *They talked on*; the changed property in an event of state change, as in *The candle blew out*; the correlation in an event of action correlating, as in *She sang along*; and the fulfillment or confirmation in an event of realization, as in *The police hunted the fugitive down.* Further display of concrete examples such as these is delayed until section 2, since the task of section 1 is to set forth the theoretical framework and parameters that the remainder of this study's analysis will depend on.

1. The Macro-Event. 1.1 Conceptual Structure of the Macro-Event.

1.1.1 Conceptualization of an Event. By the operation of very general cognitive processes that can be termed **conceptual partitioning** and the **ascription of entityhood**, the human mind in perception or conception can extend a boundary around a portion of what would otherwise be a continuum, whether of space, time, or other qualitative domain, and ascribe to the excerpted contents within the boundary the property of being a single unit entity. Among various alternatives, one category of such an entity is perceived or conceptualized as an **event**, a type of entity that includes within its boundary some portion of a qualitative domain in correlation with some portion of time, that possibly rests on a primitive phenomenological experience which may be characterized as **dynamism**, and that is probably both foundational and universal in human cognition.

1.1.2 Event Complexes. An entity that can be cognized as an event can vary over a range of structural complexity, which can be characterized both conceptually and in terms of its linguistic expression. At the simpler end, a **simplex event** is an event that can be expressed by a single clause, and that cannot be further partitioned with the resulting subportions also able to be cognized as events and expressed by single clauses. (What can qualify as a simplex event varies in certain respects from language to language.) Next in scale is an event that can in many languages be expressed by -- to use the traditional terminology -- a complex sentence consisting of a main clause and a subordinate clause that has an adverbial subordinating conjunction, and that -- to adapt the syntactic terms -- could be called a **complex event** which is in turn partitioned into a **main event** and a **subordinate event** (both simplex events in the simplest case), together with the relation that the subordinate event bears to the main event (cf. Talmy 1978a, 1978b). Finally, a **coordinate event** would consist of two equipotent events and the relation between them, and could in many languages be expressed by a coordinate (or, in traditional terms, a compound) sentence consisting of two clauses and a coordinating conjunction.

1.1.3 Conceptual Conflation of Events. There appears to be a general cognitive process at work in language whereby an event that under a more analytic conceptualization would be understood as complex and represented by a multiclause syntactic structure can be alternatively conceptualized as simplex and represented by a single clause. To adapt the term "conflation" introduced for similar purposes in Talmy (1985), this process of reconceptualization can be called the **conceptual conflation** of events. For one seemingly universal instantiation of this process, a simplex event is frequently considered in conjunction with a set of additional events so related as to form a causal chain, prototypically initiated by a volitional and intentional Agent, which ends up causing the simplex event (cf. Talmy 1972). This more analytically conceived complex of events can be correspondingly represented by a syntactic complex of distinct clauses. But the same content can also be conceptually conflated so as to be experienced as a unitary simplex event and represented as a single (agentive)

clause. To illustrate with an unintentional Agent (or "Author": cf. Talmy 1983), a particular referent can be conceptualized as a causal sequence of separate events and be so represented syntactically, as in *The aerial toppled because I did something to it*, or it can be reconceived as a neo-simplex event expressed monoclausally as in *I toppled the aerial.*

1.1.4 Macro-Event as Conceptual Conflation of Complex Event. A cross-linguistic comparison strongly suggests that there is a fundamental and recurrent category of complex event that is prone to conceptual conflation and representation by a single clause, a type here to be termed a **macro-event**. Thus, on the one hand, the macro-event is expressed by a single clause and is regularly conceptualized as a unified simplex event. On the other hand, a closer syntactic and semantic analysis of such single clauses shows that their conceptual structure and content closely resemble that of a complex event of a certain class and, indeed, they can often be alternatively expressed by complex sentences. The difference in conceptualization can be illustrated by the complex sentence *The candle went out because something blew on it* which represents part for part the main event, subordinating relation, and subordinate event of a complex event, as contrasted with the single-clause sentence *The candle blew out*, which expresses virtually the same contents with the same structuring and interrelation of components but which presents this complex as a unified simplex event, a macro-event.

The category of complex event that is amenable to conceptual conflation as a macro-event is highly constrained. In the appropriate complex event, the main and subordinate events must be of certain distinct classes, and these events must bear certain relations to the whole complex and to each other. Ultimately, one of the major concerns here is the cognitive issue of event cohesion or fusion -- i.e., with respect to conceptual content, the amount of it, the kinds of it, and the relations among different portions of it that can or must be present together in consciousness to permit the experiencing of that content as a single coherent unit of eventhood -- but the present version of this paper affords little space to address this issue directly.

1.1.5 The Framing Event. As a simplex event considered by itself, the main event within the macro-event has the character of delineating a certain type of schematic structure in any of a particular set of organized conceptual domains, and for this reason can be referred to as a **domain-schematizing event**. At this stage of investigation, there are clearly five types of domain schematization that the main event can represent, as established by their comparable semantic and syntactic treatment across languages. These five types are: an event of motion or location in space, an event of contouring in time (aspect), an event of change or constancy among states, an event of correlation among actions, and an event of fulfillment or confirmation in the domain of realization. Each domain schematization has the following structural features: 1) a particular type of **figural entity**, 2) certain types of **ground elements**, 3) a process by which the

figural entity either makes a transition or stays fixed with respect to the ground elements -- what will be called the **activating process**, because it is the component that is conceived as contributing the factor of dynamism to the event -- and 4) a **relating function** that sets the figural entity into association with selected ground elements. With respect to these features, since the figural entity of any particular framing event is generally set by context and since the activating process generally has either of only two values, the portion of the framing event that most determines its particular character and distinguishes it from other framing events is the schematic pattern of association with selected ground elements into which the figural entity enters. Accordingly, either the relating function alone or this together with the particular selection of involved ground elements can be considered the schematic core of the framing event -- what will be called the **core schema** -- and will be seen to figure crucially in the syntactic mappings described below.

To particularize this general characterization for an event of motion in space, the figural entity is a physical *object*, the ground elements are (features of) physical objects that constitute *locations*, the activating process of transitioning among these elements constitutes *motion*, and the relating function that associates the figural entity with the ground elements among which the transition takes place constitutes the *path*. The core schema here will then be either the path alone or the path together with its ground locations.

While the preceding describes the autonomous or absolute character of the main event as a domain-schematizer, the main event also has a relative role in relation to the whole macro-event. Relative to the whole, it is the main event that provides or determines certain overarching patterns, a role that is compatible with the characterization that the main head performs a *framing* function with respect to the macro-event, so that it can be aptly termed the **framing event**. Thus, the framing event provides for the whole macro-event the overarching conceptual framework or reference frame within which the other included activities are conceived of as taking place. The framing event thus determines at least the overall temporal framework and thereby determines the aspect of the sentence that expresses the macro-event; it also generally determines the overall spatial framework or some other reference frame pertaining to another conceptual domain. Further, it is the framing event that determines all or most of the argument structure and semantic character of the arguments overall within the macro-event, as well as determining all or most of the syntactic complement structure in the sentence that expresses the macro-event. In addition, the framing event constitutes the central import or main point -- or what will here be termed the **upshot** -- relative to the whole macro-event. That is to say, it is the framing event that is asserted in a positive declarative sentence, that is denied under negation, that is demanded in an imperative, and that is asked about in an interrogative.

Within the macro-event, the main event can also manifest certain framing functions relative to the subordinate event. First, the framing event can anchor the subordinate event within, or link that event to, the overarching conceptual framework that it determines. Second, the framing event can bear to the subordinate event the relation of "structurer" in a cognitive process of conceptual structuring. In particular here, the framing event can act as an abstract structure that is conceptually imposed on the subordinate event acting as a "substrate". Generally in this relationship, the semantic character of the framing event is more that of an abstract schema while that of the subordinate event tends to be more substantive or perceptually palpable. For this reason, the content of the subordinate event is often more vivid than that of the framing event and, thus, might draw much or at times even more attention to itself, and in this respect might seem semantically more primary than the framing event. Nevertheless, it is the framing event that frames, shapes, provides the upshot, and is determinative of the further factors outlined above.

1.1.6 The Supporting Event. Considered autonomously by itself, the kind of event that constitutes the subordinate event is probably most frequently and perhaps prototypically an aspectually unbounded activity, but other event types do occur and, for that reason, no single semantic characterization can as yet be given. But for its relative roles, the subordinate event can be held to constitute an event of additional *circumstance* in relation to the macro-event as a whole and to perform a function of *support* in relation to the framing event. As to this latter relationship, the subordinate event can be seen to fill in, elaborate, add to, or motivate the framing event, functions that are consonant with the cited notion of "support", and so can aptly be termed the **supporting event**. The general supportive relation that the supporting event bears to the framing event will be termed the **S-relation**. In any given usage, however, this general relation is particularized as one out of a certain set of specific relations that include: Precursion, Enablement, Cause, Manner, Concomitance, Purpose, and Constitutiveness -- the most frequent among these being Cause and Manner. There is of course a correspondence between the particular function that the framing event performs with respect to the supporting event, and the particular S-relation that the supporting event bears to the framing event. Thus, when the framing event acts as a substrate shaper with respect to the supporting event, the latter will generally bear a Constitutive relation to the former. And when the framing event serves to anchor the supporting event within its framework, the supporting event usually has a Manner or Concomitance relation to the framing event.

1.1.7 The Components of the Macro-Event. Figure 1 diagrams the components of the macro-event and their relations, showing as well the known domain-schematizations of the framing event and some particularizations of the S-relation.

1.2 Mappings of the Macro-Event onto Syntactic Structures.

Figures 1, 2, 3

(A term in braces {} indicates the role of the absolute element above it, relative to the next larger structural unit)

Figure 1: conceptual structure of the macro-event

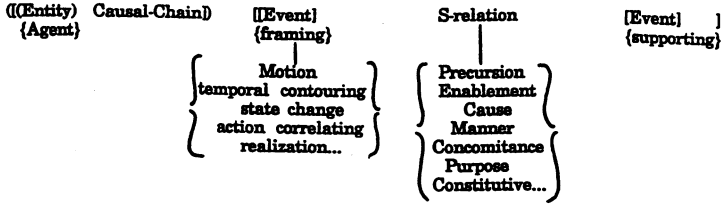
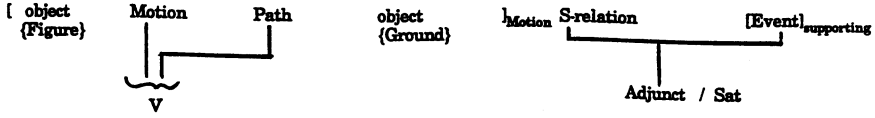
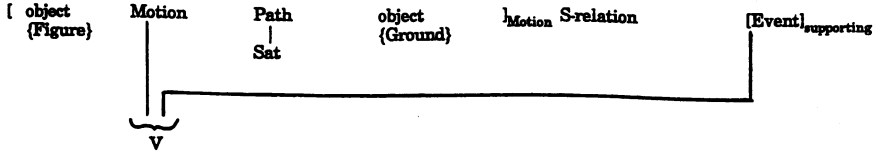


Figure 2: syntactic mapping of Motion-type macro-event in verb framed languages



(Adjunct: e.g., adverbial subordinate clause or phrase)

Figure 3: syntactic mapping of Motion-type macro-event in satellite-framed languages



NB: In Figures 2 and 3, the Ground may join with the Path for expression in either the V or the Sat

1.2.1 The Typology of Verb-Framed and Satellite-Framed Languages. The existence of the macro-event as a cognitive unit and its specific conceptual structuring may be universals of linguistic organization. But the world's languages generally seem to divide into a two-category typology on the basis of the characteristic pattern in which the conceptual structure of the macro-event is mapped onto syntactic structure. To characterize it initially in broad strokes, the typology consists of whether the core schema is expressed by the main verb or by the satellite.

As proposed and developed in Talmy (1972, 1985), the **satellite to the verb** -- or simply, the **satellite**, abbreviated as **Sat** -- is the grammatical category of any constituent other than a nominal complement that is in a sister relation to the verb root. The satellite, which can be either a bound affix or a free word, is thus intended to encompass all of the following grammatical forms, which traditionally have been largely treated independently of each other: English verb particles, German separable and inseparable verb prefixes, Latin or Russian verb prefixes, Chinese verb complements, Lahu non-head "versatile verbs" (cf. Matisoff 1973), Caddo incorporated nouns, and Atsugewi polysynthetic affixes around the verb root. The rationale for recognizing the satellite as a grammatical category is that it captures an observable commonality, both syntactic and semantic, across all these forms -- e.g., its common function across one typological category of languages as the characteristic site of the core schema.

Languages that characteristically map the core schema into the verb will be said to have a **framing verb** and to be **verb-framed** languages. Included among such languages are Romance, Semitic, Japanese, Tamil, Polynesian, most Bantu (for the qualification, cf. Schaefer 1987), most Mayan, Nez Perce, and Caddo. On the other hand, languages that characteristically map the core schema onto the satellite will be said to have a **framing satellite** and to be **satellite-framed** languages, and included among them are most Indo-European minus Romance, Finno-Ugric, Chinese, Ojibwa, and Warlpiri. Generally, a framing satellite expresses the core schema alone, whereas a framing verb conflates expression of the core schema together with that of the activating process.

With the schematic core of the framing event located thus, where does the supporting event appear? Languages with a framing satellite regularly map the supporting event into the main verb, which can thus be called a **supporting verb**. On the other hand, languages with a framing verb map the supporting event either onto a satellite or into an adjunct, typically an adpositional phrase or a gerundive-type constitutent -- terms which in this usage can now also have the word "supporting" placed before them. Figures 2 and 3 diagram these relationships for the case where the framing event is an event of Motion.

1.2.2 Introductory Illustration. For an introductory illustration of these relationships, we contrast English, a basically satellite-framed language, though not

the most thoroughgoing example of the type, and Spanish, a verb-framed language. Consider first a non-agentive sentence with a motion-type framing event: in the English *The bottle floated out*, the satellite *out* expresses the core schema -- here, the path -- while the verb *float* expresses the supporting event, which here bears the S-relation of Manner to the framing event. By contrast, in the closest Spanish counterpart, *La botella salió flotando* 'The bottle exited floating', the verb *salir* 'to exit' expresses the core schema -- again, the path -- while the gerundive form *flotando* 'floating' expresses the supporting event of Manner.

Comparably for an agentive sentence with a state-change type of framing event, in the English *I blew out the candle*, the satellite *out* expresses the core schema of the framing event -- transition to a new state, that of being extinguished -- while the verb *blow* expresses the supporting event, one with the relation of Cause to the framing event. But in the closest Spanish counterparts, *Apagué la vela de un soplido / soplándola*, 'I extinguished the candle with a blow / blowing-it', the main verb expresses the transition to a new state while the adjunct, either the prepositional phrase or the gerundive, expresses the supporting event of Cause.[2]

1.3 Aims of This Paper. The ground-level aim of this paper is to extend the typology introduced in Talmy (1972, 1985), which dealt only with Motion and some change of state. The present paper now further demonstrates that, in any language, the syntactic site -- verb or satellite -- where Path is characteristically expressed is also to a great extent where aspect, state change, action correlation, and realization are characteristically expressed. This typological finding is then prima facie evidence that languages treat these five types of domain schematization -- which might otherwise seem to bear little relation to each other -- as a single conceptual entity, the framing event, which this paper then further aims to establish as a recognized component of cognitive-linguistic organization. Further observation finds that the framing event is characteristically expressed within a single clause that systematically includes certain additional kinds of content -- the supporting event and its relation to the framing event. Such single clauses are seen to correspond cross-linguistically in expressing the same type of event complex -- viz., a complex event that is conceptualized as a single event by a process of conceptual conflation -- here termed the macro-event, which this paper then further aims to establish as an additional recognized component of cognitive-linguistic organization.

In this initial brief version, the present paper does not treat a number of further important issues. Among such issues are the relations between what serves for language as a single integrated event and the single events of perception or of general cognition; the precise requisite factors that permit conceptual integration of an event complex for linguistic expression; the particular differences between languages as to which types of complex events are amenable to such conceptual fusion; the differences between languages as to which

relations the supporting event can bear to the framing event; and the competing claims for the presence or absence of consistency in the conceptual organization within any single language, claims that the comparable treatment of the five types of framing event might bear on.

2. A Motion Event as the Framing Event. The first type of framing event we consider, possibly its conceptual prototype, is an event of physical motion or stationariness, with this range designated by the capitalized term **Motion**. As the general domain-schematizing structure is particularized for a Motion event, the figural entity is a physical *object* whose path or site requires characterization and which has the role of **Figure** in relation to the whole event. The activating process, when it consists of a transition by the Figure among the ground elements, is what is normally understood as translational *motion* and, when it consists of the Figure's staying fixed with respect to the ground elements, is *stationariness*. The relating function comes out as the **Path**, i.e., the *path* followed or the *site* occupied by the Figure with respect to the selected ground elements. And the ground element is a second physical *object* functioning as a reference point with respect to which the Figure's path or site is characterized and which bears the role of **Ground** in relation to the whole event. The core schema of the Motion event is generally the Path alone in some languages, such as English, but it is generally the combination of Path + Ground in other languages, such as Atsugewi (cf. Talmy 1972, 1984). In accordance with the general mapping typology, the core schema is characteristically expressed by the main verb in verb-framed languages and by the satellite in satellite-framed languages.[3]

For illustration, (1) represents the conceptual structure of four Motion-type macro-events that vary as to the absence or presence of an agentive causal chain and as to whether the S-relation is Manner or Cause. The concept of motion is represented by the form MOVE or -- when this results from an agentive chain -- by the form $_{A}$MOVE. Each macro-event is seen to map in accordance with the two typologically contrasting patterns onto a sentence of Spanish, representing verb-framed languages, and onto a sentence of English, representing satellite-framed languages.

(1) **a. non-agentive 1. S-relation: Manner**
[the bottle MOVED in to the cave] DURING-WHICH [it floated]
Eng: The bottle floated into the cave.
Spn: La botella entró flotando a la cueva.
"The bottle entered (MOVED-in) floating to the cave."

2. S-relation: Cause
[the bone MOVED out from its socket] AS-A-RESULT-OF [(something) pulled on it]
Eng: The bone pulled out of its socket.
Spn: El hueso se salió de su sitio de un tirón.
"The bone exited (MOVED-out) from its location by a pull."

b. agentive **1. S-relation: Manner**

[I $_{A}$MOVED the keg out of the storeroom] DURING-WHICH [I rolled it]

Eng: I rolled the keg out of the storeroom.

Spn: Saqué el barril de la bodega rodandolo.

"I extruded ($_{A}$MOVED-out) the keg from the storeroom rolling it."

2. S-relation: Cause

[I $_{A}$MOVED the ball in to the box] BY [I kicked it]

Eng: I kicked the ball into the box.

Spn: Metí la pelota a la caja de una patada.

"I inserted ($_{A}$MOVED-in) the ball to the box by a kick."

As the preceding translations show, English often has Path verbs that can directly gloss the Spanish Path verbs, but their use is generally less colloquial and they are largely borrowed from Romance languages, where they are the characteristic type, as is the case, for example, with all the following intransitive Path verbs: *enter, exit, ascend, descend, pass, cross, traverse, circle, return, arrive, advance, join, separate.*

One of the reasons for considering a domain-schematizing event as a "framing" event can be seen in the present examples. Readily able to serve as a Manner-type supporting event is a class of aspectually unbounded activities that I have called events of "self-contained Motion", i.e., Motion of elements that, at a certain larger scope of granularity, do not change their average position in space. This class includes: rotation, oscillation, local wander, dilation/contraction, wriggle, and rest. Such self-contained motion events can be referred to in isolation, e.g., in *The ball rolled over and over (in the magnetic field)* [rotation] or *The ball bounced up and down (on one spot)* [oscillation]. On the other hand, in macro-event sentences like *The ball rolled / bounced down the hall*, we see the self-contained motion occurring concurrently with and as a modifying manner for an event of translational motion, i.e., motion where the Figure object does change its average position in space (here, the ball's moving down the hall). Such a translational motion event co-defines a rectilinear framework in space, within which the activity of the self-contained motion has now come to be anchored -- hence, one justification for calling the main event a "framing" event.

As noted earlier for English, the core schema for a Motion event is usually just the Path alone, but we should present some cases where it is the combination of the Path plus the Ground, both to illustrate the majority pattern for Motion in languages like Atsugewi and to model the majority pattern for the other framing event types in most languages including English. Thus, in English, the whole of the Path + Ground concept 'to the home of entity$_1$/entity$_2$' maps onto the satellite *home* as in *He drove her home*, where it can mean either 'to his home' or 'to her home'. For a case with a more abstract Ground, the

Path + Ground combination 'to a position across an opening' -- following the typology -- can in English map onto the satellite *shut*, but in Spanish must map into the verb together with the 'motion' notion, as in *cerrar* 'to close', as shown in (2). Since this example can be interpreted as either motion or change of state or as something in between, it can serve to show a relatedness or gradience across the different framing-event types.

(2) [I $_{A}$MOVED the door TO POSITION-ACROSS-OPENING] BY [I kicked it]
Eng: I kicked the door shut.
Spn: Cerré la puerta de una patada.
"I closed the door by a kick."

3. Temporal Contouring (Aspect) as the Framing Event. The second type of framing event we consider is an event of **temporal contouring** -- that is, of aspect where such aspect is conceptualized as an event. The structural template of domain schematization can apply to a temporal contouring in either of two ways. For the general case, the figural entity is an event's **degree of manifestation** -- e.g., whether it is fully manifested, not manifested, or at reduced manifestation as in a process of tapering off -- which is set into a fixed association with selected points or periods of time that thus function as the ground elements. Thus, if drawn on a graph with time progressing toward the right and degree of manifestation increasing upward, an iterated accomplishment would have the temporal contour of a series of flattened inverted U-shaped curves.

For the kind of aspect in which an object gets progressively more affected, an alternative schematization brings forth this object's progression of affectedness in accordance with a particular temporal contour. Thus, here, the figural element is the affected object itself; the activating process is this object's progression through time --- represented below as "MOVE", where the quote marks are to suggest that temporal progression can be conceptualized as an analog or metaphoric extension of motion through space; the relating function indicates the direction of association that the affected object has with the temporal contour (e.g., taking it on or letting it go) and the ground element is the temporal contour itself. The core schema then consists of these last two components together.

This analysis is based on evidence that the organization of conceptualization for linguistic expression sets temporal contouring into analogy with Motion as part of a broader cognitive analogy by which temporal structuring is conceptualized as paralleling spatial structuring. This conceptual analogy motivates a syntactic and lexical analogy: to a great extent in a language, aspect is expressed in the same constituent type as Path (+ Ground), and often by homophonous forms. Thus, in accordance with the general typology, the core schema of an event of temporal contouring appears in the main verb in verb-framed languages but in the satellite in satellite-framed languages, as exemplified below

respectively by Spanish and by German.

The event of temporal contouring lives up to its name as framing event relative to the whole macro-event in that it determines the overall temporal framework within which the whole, including the supporting event, has occurrence. The event of temporal contouring also performs a framing function with respect to the supporting event in the sense, described earlier, of acting as a shaping structure imposed on a substrate and, as with the earlier generalization, has a more abstract character by contrast with the more tangible character of the supporting event. Correlatively, the S-relation that the supporting event bears to the event of temporal contouring is a **constitutive** relation, in effect "filling in" the conceptual region outlined by the temporal contour.

Now, why should the temporal contour, i.e., the sheer manifestational envelope, of an activity be itself treated in conception and in linguistic expression as a separate event, perhaps as a process of imposition, as evidenced by the common existence of lexical verb roots comparable to the English *begin, finish, continue, repeat*, etc.? The main cognitive basis may involve force dynamics (cf. Talmy 1988b), i.e., the general and language-based conceptual system pertaining to force exertion, opposition, resistance, and overcoming, where the temporal contouring event, as Antagonist, overcomes the so-conceived intrinsic temporal character of the substrate activity, as Agonist. By this interpretation, for example, a substrate activity's basic tendency to continue on in a steady state can, by a process of temporal imposition, be overcome so as to yield a cessation or completion; or another activity's basic tendency toward termination can be overcome to yield a continuation of the activity; or another activity's basic tendency to occur once and then cease can be overcome to yield an iteration. A further cognitive basis for the agentive form of such impositional processes might be an individual's own developmental experience of the exercise of agency, in particular, in marshalling one's efforts to effect a desired pattern in an activity, as by increasing or decreasing one's pace, initiating, persevering, or quitting. But whatever the validity of event status for aspect or of any cognitive bases for such a status, the linguistic facts are that aspect is frequently expressed as the main lexical verb, and often characteristically so in verb-framed languages.

3.1 Spanish / German Aspect Mapping Contrasts. Presented in (3) are a number of different aspectual concepts and examples showing the mapping of each such concept into the main verb in Spanish[4] but in German onto a satellite -- a satellite either in the narrower sense or in the broader sense that includes particles and adverbials in construction with the verb. While both these languages, and possibly all languages, express aspectual notions both with the lexical verb and with constituents adjoined to the verb, one or the other of these loci usually tends, as here, to predominate in degree of usage and in colloquiality. English itself, while perhaps leaning toward the satellite side, does have a fair number of colloquial aspectual verbs, e.g., from the set of examples below,

finish, continue, use(d to), wind up, be (-ing). But it should be noted that, of these, the first three are borrowings from Romance, where they are the native type, and that this pattern may parallel the borrowing of Path verbs also from Romance, as discussed earlier, so that insofar as English presents a mixed typological picture, it does so comparably in both the domains of Motion and temporal contouring.

Represented for the aspect type in (3a) is a suggested conceptual structure for the macro-event, in which the core schema consists of a positive direction of association, represented as TO, plus a 'terminative' temporal contour, represented as COMPLETION. The English construction *to completion*, as in *I wrote the letter to completion*, may be taken to directly reflect the two components making up the core schema, the relating function and the ground element, and so to exhibit syntactically a parallelism between a temporal contour and a Path + Ground. Otherwise, in the expected pattern, German expresses the whole core schema in a framing satellite and the supporting event in a supporting verb, while Spanish expresses the whole core schema in a framing verb and the supporting event in a verbal complement.[5]

The inclusion of the progressive aspect forms in (3j) is meant to suggest that in Spanish and German the progressive is syntactically treated not as a special form but in accordance with the same pattern as the other aspectual forms -- an interpretation buttressed by the fact that in both languages, unlike English, such progressive forms are optional in the present and exist beside simple present forms: *Esribe una carta*, and *Sie schreibt einen Brief.*

(3) a. 'to finish Ving' / 'to V to a finish / to completion'
Spn: terminar de V-Inf
Gmn: fertig-V
[I "$_{A}$MOVED" the letter TO COMPLETION] CONSTITUTED-BY [I was writing it]
Terminé de escribir la carta.
Ich habe den Brief fertiggeschrieben.
'I finished writing the letter.' / 'I wrote the letter to completion.'

b. 'to V again / re-V'
Spn: volver a V-Inf
Gmn: wieder-V / noch mal V
Volví a comer. / Lo volví a ver.
Ich habe noch mal gegessen. / Ich habe ihn wiedergesehen.
'I ate again.' / 'I saw him again.'

c. 'to have just Ved'
Spn: acabar de V-Inf (acabar: imperfective forms)
Gmn: gerade V (perfect forms)

Acabo de comer. / Acababa de comer cuando llegó.
Ich habe gerade gegessen. / Ich hatte gerade gegessen, als er kam.
'I just ate.' / 'I had just eaten when he arrived.'

d. 'to continue to V / 'to still V'
Spn: seguir V-Ger
Gmn: (immer) noch V
Sigue durmiendo. / Seguía durmiendo cuando miré.
Er schläft noch. / Er hat noch geschlafen, als ich nachschaute.
'He's still sleeping. / He was still sleeping when I looked in.'

e. 'to customarily V'
Spn: soler V-Inf
Gmn: normalerweise V (present) / [früher/...] immer V (past)
Suele comer carne. / Solía comer carne.
Normalerweise isst er Fleisch. / Früher hat er immer Fleisch gegessen.
'He eats meat.' / 'He used to eat meat.'

f. 'to V (NP) one after another cumulatively'
Spn: ir V-Ger (NP)
Gmn: (NP) nacheinander / eins nach dem anderen V
(i) *Las vacas se fueron muriendo aquel año.*
Die Kühe sind in dem Jahr (kurz) nacheinander gestorben.
'One after another of the cows died that year [Spn: not necessarily all].'
contrast: Las vacas se estaban muriendo aquel año.
'The cows were (all sick and concurrently) dying that year.'
(ii) *Juan fue aprendiendo las lecciones.*
Johann hat die Lektionen eine nach der anderen gelernt.
'John learned one after another of the lessons.'

g. 'to finally V' (Pos) / 'to not quite V' (Neg)
Spn: llegar a V-Inf 'to finally V after all'
no llegar a V-Inf 'to not quite get so far as to V'
Gmn: schliesslich / dann doch V
nicht ganz / dann doch nicht V
(i) *El tiempo llegó a mejorar.*
Das Wetter ist schliesslich / dann doch besser geworden.
'The weather finally did improve after all.'
(ii) *La botella no llegó a caer.*
'The bottle never did quite go so far as to actually fall [though teetering].'
Die Flasche wackelte, aber fiel dann doch nicht um.
'The bottle teetered, but didn't quite fall.'

h. 'to end up Ving'
Spn: acabar V-Ger [perf] 'to end / wind up Ving after all'
Gmn: am Schluss...dann doch V
Acabamos yendo a la fiesta.
Am Schluss sind wir dann doch zur Party gegangen.
'We wound up going to the party after all (after wavering / deciding not to go).'

i. 'to have been Ving (since / for...)'
Spn: llevar V-Ger 'to have been Ving'
Gmn: schon V
Lleva estudiando 8 horas. / Llevaba estudiando 8 horas cuando llegué.
Er studiert schon 8 Stunden lang. / Als ich kam, hatte er schon 8 Stunden studiert.
'He's been studying for 8 hrs. / He had been studying for 8 hrs when I arrived.'

j. 'to be Ving'
Spn: estar V-Ger
Gmn: gerade V (non-perfect forms)
Está escribiendo una carta. / Estaba escribiendo una carta.
Sie schreibt gerade einen Brief. / Sie schrieb gerade einen Brief.
'She is writing a letter. / She was writing a letter.'

3.2 Treatment of Aspect as Distinct from Other Verbal Categories. While the German examples in (3) are clear evidence that that language uses satellites to express aspect, for this to be a distinctive pattern one must determine that the satellite is not simply used for nearly any semantic category. On inspection, one does observe that out of some six verbal categories, aspect is the sole category that receives extensive expression in satellite form, while the other categories are mainly expressed by the main finite-inflected verb. This pattern is even more pronounced in modern spoken German, where earlier inflections, which can be regarded as a type of satellite to the verb stem, have progressively given way to the use of main verb forms. Thus, TENSE is regularly expressed by *haben* 'past' and *werden* 'future' (the present and a residue of past usage are inflectional). Non-active VOICE types are indicated by *werden* and *kriegen*. CONDITIONALITY is largely expressed by *würden* (though a residue is expressed by subjunctive inflections). MODALITY is mainly expressed by such modal verbs as *können* 'can', *sollen* 'should', and *müssen* 'must' (though subjunctive inflections can express some modality). And EVIDENTIALITY, or at least the distinction between deontic and epistemic senses, is largely indicated by the pattern of auxiliary forms, including the main finite-inflected one, as between *Er hat es machen müssen,* 'He had to do it', and *Er muss es gemacht haben,* 'He must have done it' (again, subjunctive inflections can indicate some evidentiality). However, though also expressed by some main verb forms, aspect is the only one of these verbal categories to receive preponderant expression by satellites, and thus to be placed syntactically in a single class with the expression of Path.

Something of the contrary picture occurs in Spanish. Although in Spanish the distinctness of aspect from the other verbal categories is less pronounced, it can still be noted that, while aspect is extensively expressed by the main verb stem and therein is in the same class with Path, several of the other verbal categories are mostly expressed by non-V-stem constituents, viz., by inflections and clitics to the main V stem. Fitting this description are tense (except for one of the two future forms, "*ir a* V-Inf"), conditionality, and passive voice as rendered by the reflexive pronouns.

The explanation for such differential treatment of aspect may lie in the conceptual analogy (cited earlier) that aspect is the temporal structuring of events relative to the ongoing time line and is therefore allied with path, as the spatial structuring of a progressing line of motion -- whereas a comparable conceptual analogy is not readily established for the other verbal categories.

4. State Change as the Framing Event. The third type of framing event we consider is an event of **state change** -- which is, in the case where it is conceived that a certain property is associated with a particular object or situation, an event that consists of a change in, or the unchanging continuation of, that property.

For such an association and change, one can entertain a range of conceptualizations and corresponding linguistic expressions. For example, the event could be conceived and expressed directly in terms of change or stasis in the property itself, as suggested by constructed formulations like *His (state of) health changed from well to ill* or *His (state of) health is illness*. Or, the property could be conceptualized as a figural entity with respect to the object or situation as a ground, e.g., as if the property comes to or occurs in the object or situation, as suggested by formulations like *Illness came to him* or *Illness is in him*. Or, conversely, the object or situation could be conceptualized as a figural entity with respect to the property as a ground element, e.g., as if coming to or occurring in the property, as suggested by formulations like *He sickened / became ill / went to ill health* or *He ails / is ill / is in ill health.*

Now, while all three of these conceptualization-formulation types, and perhaps still others, may occur in a language, and while no immediately evident factor accounts for any superiority of one type over the others, nevertheless the third type is, with seeming universality, the most basic and preponderant in any language. The domain schematization for state change should reflect this preferential conceptualization. Accordingly, the figural entity is the object or situation involved with properties, while the ground elements are the properties; the activating process is either the object/situation's transition among the properties, i.e., what is normally understood as **change**, or its staying fixed with respect to the properties, i.e., **stasis**; and the relating function is the direction of association that the object/situation has with respect to a selected property, what will be termed the **transition-type** -- usually one of acquiring the association, represented below as TO, but other possibilities do occur. A property that, as

here, is conceptualized as a ground element can now be called a **state**, a term thus reserved for that interpretation. The core schema of the state change event is generally the combination of the transition-type plus the state, and hence is the analog of the Path + Ground of a Motion event.

Thus, we find that the organization of conceptualization for linguistic expression sets state change into analogy with Motion -- in particular, change or stasis with respect to states parallels motion or stationariness with respect to objects, and state transition-type parallels Path type. This conceptual analogy motivates a syntactic and lexical analogy: to a great extent in a language, state change is expressed in the same constituent type as Path (+ Ground), and often by homophonous forms. Thus, in accordance with the general typology, the core schema of an event of state change appears in the main verb in verb-framed languages but in the satellite in satellite-framed languages, as exemplified below respectively by Spanish and by English or German.

In accordance with the customary properties of a framing event relative to a supporting event, the state change event is largely more abstract in character, often involving change purely in an individual's cognitive state, for instance, to cite some state changes from the examples below: 'to become awake / aware / familiar / in possession / existent / non-existent / dead'. On the other hand, the supporting event is largely concrete and physical, for instance, again from the examples below: 'to battle / play / run / shake / jerk / rot / boil'.

In the reverse direction, the S-relation of the supporting event to the state change event can apparently exhibit much the same range of types as in the case of Motion, with Manner and Cause likewise the most prevalent types. Thus, to take some English non-agentive examples, the supporting verbs bear a Manner relation to the framing satellites in *The door swung / creaked / slammed shut* and *He jerked / started awake*, whereas it bears a Cause relation in *The door blew shut*. Likewise in agentive constructions, the verb-to-satellite S-relation can be one of Manner, as in *I swung / slammed the door shut.* and *I eased him awake gently,* or one of Cause, as in *I kicked the door shut* and *I shook him awake*. True, in these latter Manner cases, the Agent initiates a causal chain of events that culminates in the state-change event and, to this extent, that event is marked as being caused. However, the verb names an action that is not one of the chained causal events but rather an event accompanying the state change and qualifying it as Manner. Because of this range of S-relation types, the traditional terms "result" and "resultative" would be misnomers for the whole state change category, since, within the referential scope of a sentence, the change of state can be a result only if it is conceptually paired with a cause, an arrangement that we have just seen is only one option out of a number. While such a cause-result pairing may predominate in the usage, or in some syntactic circumstances be obligatory, it is not definitional of the entire state-change category.

4.1 Forms Suggesting Parallelism with Path + Ground. As before with temporal contouring, the demonstration of state change can be heuristically best begun with an example in which English can represent the core schema sequence -- here, of transition-type plus state -- part-for-part with a preposition plus noun, thus exhibiting explicitly the analogy to the common construction type representing a Path plus Ground of Motion. Thus, as the macro-event's conceptual structure is schematized in (4), the core schema sequence TO DEATH can be represented in English by the phrase *to death*, a phrase perhaps to be interpreted as corresponding to the framing satellite. The Spanish counterpart conflates the core schema together with the activating process, represented by "MOVE" or agentive "$_{A}$MOVE", with the combination mapping onto the framing verb -- an option, as it happens, also available in English with the verbs *die / kill*.

(4) a. non-agentive
[he "MOVED" TO DEATH] AS-A-RESULT-OF [he choked on a bone]
Eng: He choked to death on a bone.
Spn: Murió atragantado por un hueso / porque se atragantó con un hueso.
"He died choked by a bone / because he choked himself with a bone."

b. agentive
[I "$_{A}$MOVED" him TO DEATH] BY [I burned him]
Eng: I burned him to death.
Spn: Lo maté con fuego / quemándolo.
"I killed him with fire / [by] burning him."

The core schema of this illustration, TO DEATH, serves triple duty in that it is further found in German to map as a combination onto a monomorphemic framing satellite, the inseparable verb prefix *er$_{1}$-*, as seen in (5). A satellite of this semantic sort thus parallels a Path+Ground-expressing satellite like English *home*, but while such satellites are unusual for Motion in English, they are the norm for state change in English-type languages.

(5) Gmn: er$_{1}$-V NP-Acc 'V NP to death' / 'kill NP by Ving NP'

(er-) drücken / schlagen / würgen / stechen / schiessen
'to squeeze / beat / choke / stab / shoot (to death)'

For one further step in this introductory series, to express the meaning of another German satellite, *er$_{2}$-* 'into one's possession', English lacks either a satellite or a "P + NP" construction and, and instead must express the meaning in a verb such as *get / obtain / win*, in just the way typical of a verb-framed language. However, for heuristic purposes, the "P + NP" phrase *into [subject's] possession*, though not used thus in English, does sufficiently follow extant

patterns as to be readily pressed into service to render the German construction, as seen in (6). Not all of the state change concepts treated below will be as amenable in English to this type of suggestive paraphrasing, so that the macro-event representations for such concepts (which here, after all, are indicated with English words) will seem more awkward, but they can still serve as schematics showing the interrelations of the component meanings.

(6) Gmn: er_2-V NP-Acc (Refl-Dat) "V NP into one's possession"/'obtain NP by Ving'

a. [the army "$_A$MOVED" the peninsula INTO ITS POSSESSION] BY [it battled]
Die Armee hat (sich) die Halbinsel erkämpft.
'The army gained the peninsula by battling.'
as if: "The army battled the peninsula into its possession."

b. Die Arbeiter haben sich eine Lohnerhöhung erstreikt.
'The workers won a pay raise by striking.'
as if: "The workers struck a pay raise into their possession."

c. Wir haben öl erbohrt.
'We obtained oil by drilling.'
as if: "We drilled oil into our possession."

Note that, in its different usages above, the German prefixal satellite *er-* has been given different subscripts to indicate that it is here regarded as a polysemous morpheme with distinct pockets of meaning, not a morpheme readily fitted with a single abstractionist gloss like 'completive', as is often attempted. This distinctional approach is based on such evidence as the fact that *erdrücken* does not mean 'to squeeze to completion' but rather 'to squeeze to death' -- that is, the German notion of 'squeezing' does not have an intrinsic or standardly associated end-point which a generic *er-* simply invokes.

4.2 Change in State of Existence. Having introduced the state change type with examples involving death and possession, we can continue considering the semantic range of state change with an exploration of one domain: change with respect to state of existence. We first consider the transition from an existent to a non-existent state, i.e., from presence to absence. This conceptual type is generically expressed in English by the phrases *go/put out of existence*, which directly represent part for part the final three components of the framing event. However, some more particular senses are expressed conflatedly. For a first case that can function as a discrete transition type, the concept of a flame or light becoming extinguished can be expressed in English by a monomorphemic satellite *out*, while in Spanish, as per the usual contrast, it is expressed in the verb, aş seen in (7).

(7) V out (NP) 'V (NP) to extinguishment' / 'extinguish (NP) by Ving'

intrans:
[the candle "MOVED" TO EXTINGUISHMENT] DURING WHICH [it flickered / ...]
The candle flickered / sputtered out.
[the candle "MOVED" TO EXTINGUISHMENT] AS-A-RESULT-OF [... blew on it]
The candle blew out.
trans:
[I "$_{A}$MOVED" the candle TO EXTINGUISHMENT] BY [I blew on / ... it]
I blew / waved / pinched the candle out.
Spn: Apagué la vela soplándola / de un soplido.
"I extinguished the candle [by] blowing-on it / with a blow"

For a case with a "bounded gradient" transition type -- i.e., where the change is a progressive transition through a gradient state that terminates with a final state -- the concept of an object's gradual diminishment until final disappearance, through some usually organic process, is expressed in English by the satellite *away* and, again, in Spanish by a main verb, as seen in (8).[6] One test for the transition-types just adduced is a form's behavior with different types of temporal expressions. Thus, a discrete transition type is consonant with a punctual expression, as with *The candle blew out at exactly midnight.* as against **The meat rotted away at exactly midnight.*, whereas a bounded gradient transition type is consonant with an expression of bounded temporal extent, as in *The meat rotted away in five days.*

(8) V away 'V to gradual disappearance' / 'gradually disappear as a result of Ving'

[the meat "MOVED" GRADUALLY TO DISAPPEARANCE]
AS-A-RESULT-OF [it rotted]
The meat rotted away.
also: The ice melted away. / The hinge rusted away. /
The image faded away. / The jacket's elbows have worn away.
Eng: The leaves withered away.
Spn: Las hojas se desintegraron al secarse.
"The leaves disintegrated by withering."

A further case of the bounded gradient transition-type is expressed by the English satellite *up* in examples like those of (9). Though needing further elucidation, the semantic difference between *away* and *up* at least involves a conceptual categorization of rate and time scale, with *away* as slow and lengthy and *up* as quick and brief. In addition, these forms with *up* seem to have a particularly aspectual character, and thus point to the likelihood of a conceptual continuum between aspect and state change as opposed to any sharp category division. Accordingly, as noted in the previous section on temporal contouring, much that

is traditionally treated as aspect also involves state change, so that a number of the examples appearing there could equally have fit in the present section, and it can be further noted that all particular state changes have a specific aspectual contour (or a range of possible contours).

(9) V up 'V to consumedness' / 'become consumed in Ving'
V up NP 'V NP to consumedness' / 'consume NP by Ving it'

a. [the log "MOVED" TO CONSUMEDNESS in 1 hour]
AS-A-RESULT-OF [it was burning]
The log burned up in 1 hour.
contrast *burn* alone: The log burned (for 30 mins. before going out by itself).

b. [I "$_A$MOVED" the popcorn TO CONSUMEDNESS in 10 mins.] BY [I was eating it]
I ate up the popcorn in 10 mins.
contrast *eat* alone: I ate the popcorn (for 5 mins. before I stopped myself).

The German prefixal satellite *ver-* also expresses a gradient progression to a final state, indicating that an Agent has exhausted the entirety of some object in acting on it, as illustrated in (10). Here, however, the object itself need not physically disappear and may merely become altered, but what does disappear is the *supply* of the object in its original condition available for the Agent's use in acting upon it. Thus, here, the state change from presence to absence pertains not to a first-order object, which instead may continue in existence, but rather to an abstract second-order meta-object, the supply.

(10) Gmn: ver-V NP-Acc
'use up / exhaust NP by Ving (with) it' / "V NP to exhaustion"

a. [I "$_A$MOVED" all the ink TO EXHAUSTION] BY [I wrote with it]
Ich habe die ganze Tinte verschrieben.
"I've written all the ink to exhaustion."
'I've used up all the ink in writing.'
b. Ich habe alle Wolle versponnen. 'I've used up all the wool in spinning.'
c. Ich habe meine ganze Munition verschossen.
'I've exhausted my ammunition in shooting.'

Remaining in the area of change with respect to state of existence, we now turn to the reverse of the preceding direction of change, hence to the transition from a non-existent to an existent state, i.e., from absence to presence. Again, there are English expressions, *come / bring into existence*, that directly map the final three components of the generic framing event part-for-part onto syntactic and lexical structure. In addition, the English satellite *up* expresses the same generic concept, as illustrated in (11), where the core schema INTO

EXISTENCE as a combination maps onto the single morpheme of the satellite. This satellite covers either a discrete or a bounded-gradient interpretation for the transition-type, according to the context, as demonstrated by its equal compatibility with either *at* or *in* type temporal phrases. In its agentive use, the framing event type under discussion -- state change from non-existence to existence -- amounts to the traditional notion of "effected object", as against "affected object", so that the English satellite *up* as used here and its counterparts in other languages can be taken as markers of an effected object construction.

(11) V up NP 'V NP into existence' / 'make/create NP by Ving'

a. [I "$_A$MOVED" INTO EXISTENCE three copies of his original letter]
BY [I xeroxed it]
I xeroxed up (*xeroxed) three copies of his original letter.
contrast *xerox* alone: I xeroxed (*up) his original letter.

b. I boiled up (*boiled) some coffee for breakfast at our campsite.
contrast *boil* alone (any acceptable use of *up* has a different sense):
I boiled (*up) last night's coffee for breakfast / some water at our campsite.

c. [I "$_A$MOVED" INTO EXISTENCE a plan] BY [I thought (about the issues)]
I thought up (*thought) a plan.
contrast *think* alone: I thought *up / about the issues.

It was seen above that the German satellite *ver-* expresses the gradual disappearance of an abstract second-order meta-object, viz., a supply. Comparably in the reverse direction, another English *up* satellite expresses the gradual appearance of an abstract, second-order meta-object, an 'accumulation', as illustrated in (12). Here, the verb-specified action affects but does not create the first-order objects named (below: money, property), but the repetition of this action does create the accumulation per se as a higher-level Gestalt entity.

(12) V up NP 'progressively accumulate / amass NP by Ving'

a. [I "$_A$MOVED" INTO AN ACCUMULATION $5,000 in 5 years] BY [I saved it]
I saved up $5,000 in 5 years.
contrast *save* alone: I saved (*up) (the/my) $1,000 for 2 years.

b. Jane has bought up beach-front property in the county.
--i.e., has progressively amassed a good deal of property over time
contrast: Jane has bought beach-front property in the country.
--possibly just a little on one occasion

Two Russian satellites contrast nicely as to the level of the object in reference. The path prefix "s-[V] [NP-pl]-Acc" merely specifies paths of motion that yield a spatial juxtaposition of plural objects, thus corresponding well to English

together. But the state-change prefix "na-[V] [NP-pl]-GEN" indicates that such a juxtaposition constitutes a higher-level Gestalt, an accumulation, as in (13).

(13) Rus: na-V NP-Gen 'create an accumulation of NP by Ving NP'

Ona nagrebla orexov v fartuk. "She accumulation-scraped nuts(Gen) into apron."
'By scraping them together into her apron, she accumulated (a heap/pile of) nuts'.
contrast: Ona sgrebla orexi v fartuk. "She together-scraped nuts(Acc) into apron."
'She scraped together the nuts into her apron'.

4.3 Change in Condition. As the introductory examples showed, the state change type encompasses more than just state of existence, and, for heuristic purposes, we now represent a range of this "change in condition" with examples both of physical and cognitive change and both in the Patient and in the Agent. For a physical case, the concept of changing an object from an intact condition to what can be conceptually categorized as a non-intact condition can be expressed in English again by an *up* satellite, in German more specifically and more productively by the satellite *kaputt-*, and in Spanish, as usual, with a main verb, as seen in (14).

(14) Eng: V up NP / Gmn: kaputt-V NP-Acc 'make NP non-intact by Ving it'

[the dog "$_{A}$MOVED" TO NON-INTACTNESS the shoe in 30 mins.]
BY [he chewed on it]
The dog chewed the shoe up in 30 mins.
contrast *chew* without *up*: The dog chewed on the shoe (for 15 mins.).
Gmn: Der Hund hat den Schuh in 30 Minuten kaputtgebissen.
"The dog bit the shoe up in 30 mins."
contrast: Der Hund hat 15 Minuten an dem Schue gekaut.
"The dog chewed on the shoe [for] 15 mins."
Spn: El perro destrozó el zapato a mordiscos / mordiéndolo en 30 minitos.
"The dog destroyed the shoe with bites / [by] biting it in 30 mins."
contrast: El perro mordisqueó el zapato (durante 15 minutos).
"The dog chewed-on the shoe (for 15 mins.)."

A number of state change satellites in other languages have no counterpart in English, which must resort to framing verb constructions to render them, and the concepts such satellites express can range quite broadly, more so than English speakers might expect. An example with range of application from the physical to the cognitive is the German satellite construction "ein-V NP/Refl-Acc", where the satellite's meaning can be characterized in broad strokes as 'to readiness' and the construction's meaning more finely as 'to warm (NP) up for Ving by (practicing at) Ving', as in *die Maschine einfahren,* 'to warm up the machine for operating it' or in *sich ein-laufen / -spielen / -singen,* 'by practicing

at the activity itself, to warm up for running / playing / singing'.

Another German example, possibly in a polysemous chain with the preceding example but semantically distinct enough, is an *ein-* satellite with a solely cognitive meaning that can be characterized broadly as 'to familiarity' and more finely as in (15).

(15) Gmn: ein-V Refl-Acc in NP-Acc 'to have gradually managed to become easefully familiar with all the ins and outs of NP in Ving (in/with) NP'

a. Ich habe mich in das Buch eingelesen.
"I have read myself into the book."
'I've gotten familiarized enough with the book that I can keep all the characters and plot involvements straight.'
b. Der Schauspieler hat sich in seine Rolle eingespielt.
"The actor has played himself into his role."
'The actor has come to know his part with ease in the course of acting in it.'
c. Ich habe mich in meinen Beruf eingearbeitet.
"I have worked myself into my job."
'I know the ropes in my work now.'

In these preceding transitive examples, including the reflexive ones, what has manifested the change in condition was the Patient expressed in the direct object NP. But in another transitive example that does not fit this mapping, and so calls for further investigation, the Agent or Experiencer expressed by the subject NP is the entity that manifests the change in condition. In particular, with the German satellite illustrated in (16), the subject Experiencer undergoes a cognitive change, one that can be characterized in broad terms as 'to awareness' and more finely as indicated below.

(16) Gmn: heraus-V NP-Acc [V: sensory verb]
'detect and sensorily single out NP among other comparable NPs via the sensory modality of Ving'

Sie hat ihr Kind herausgehört.
"She has heard out her child."
'She could distinguish her child's voice from among the other children talking.'

5. Action Correlating as the Framing Event. The fourth type of framing event has not to my knowledge been previously recognized and is part of a much broader linguistic phenomenon -- which I propose to call **coactivity** -- that has also received scant attention as a consolidated topic. Some agency, i.e., an entity executing a certain activity, must also have an object NP that refers to a second agency, one whose activity is appropriate to the first activity -- typically,

either comparable to it or complementary to it. Prototypically across languages, such a **coactive** object NP is required by symmetric verbs, comitatives, datives, and certain further syntactic categories. Thus, *I met John / *the corpse* requires that John also engage in the action of meeting me; *I ate with John / *the corpse* requires that John also engage in eating; *I threw the ball to John / *the corpse* or *I threw John / *the corpse the ball* require that John engage in the action of trying to catch the ball, as an action complementary to my throwing it; and *I ran after John / *the tree* requires that John also engage in swift forward motion.

In the fourth type of framing event, which will be termed **action correlating**, an intentional Agent effects or maintains a particular correlation between an action performed by himself and an action performed by another Agency which can be either animate or inanimate. The framing event consists of the establishment of this correlation per se. The types of such correlation that will be treated below are 'concert', 'accompaniment', 'imitation', 'surpassment', and 'demonstration'. The supporting event consists of the specific action performed by the Agent. Except for the 'demonstration' type, this action is either the same as the action performed by the Agency or is in the same category, as understood according to pragmatic norms that will need investigation.

Apparently here, in the way that conceptual structure is organized for linguistic expression, such action correlating is analogized to Motion in that the correlation of one action with respect to another parallels the path of one object with respect to another. In particular, in the conceptual structuring of the framing event, as schematized in (17a), the Agent places his own action as figural entity -- represented as Action for the generic form -- in correlation with an Agency's same-category action as ground element -- generically represented as Action. This structure is thus comparable to that of agentive motion of the sort: Agent $_{A}$MOVE Figure Path Ground. The core schema here is then a straight Path-analog, the In-Correlation-With component. The remainder of the macro-event, also schematized in (17a), consists of the supporting event, which is the specific action that is performed by the Agent, here represented as [Agent PERFORM], and the constitutive S-relation that this supporting event bears to the framing event. This S-relation is so termed because the specific activity of the supporting event constitutes the action that the Agent sets in correlation with the Agency's action, and it will also constitute the Agency's action in the case where that happens to be identical to the Agent's action rather than just of the same category.

While the macro-event structure as schematized in (17a) seems more closely to represent the interrelationships among the conceptual components, a particular adaptation of this structure, as schematized in (17b), seems to be closer to the patterns in which this semantic type is mapped onto occurrent syntactic structures, at least in the languages considered here. Thus, on the basis of (17b) and in accordance with the usual typology, in verb-framed languages the core schema maps onto a satellite (plus adposition) and the supporting event

maps into the main verb, while in verb-framed languages the combination of the ACT component and the core schema maps onto the main verb (plus adposition) and the supporting event maps into an adjunct.

(17) a. [Agent PUT Agent's Action In-Correlation-With Agency's Action]
CONSTITUTED-BY [Agent PERFORM]
b. [Agent ACT In-Correlation-With Agency]
CONSTITUTED-BY [Agent PERFORM]

With respect to the framing event's role in the present type, it clearly provides the overarching framework within which two actions are brought into correlation with each other. In addition, the general pattern is maintained in that the framing event is relatively abstract in character while the supporting event is typically concrete. Thus, if an observer were present in the situation referred to by a macro-event of action correlating, that observer would directly perceive the specific supporting event activity that is performed by the Agent and would perceive the same or something similar performed by the Agency -- e.g., as in the illustrations below, these actions could be playing, singing, drinking, etc. But the observer could generally not perceive, but would rather need to infer or otherwise know the intended relation of the one action to the other, e.g., that the Agent performs his action so that it will be in concert with that of the Agency, or in accompaniment to it, or in imitation of it, etc.

We now consider five different cases of action correlating.

Agency's Action is Same(-Category) as Agent's Action. In their semantic distinctions, the first three cases of action correlating here can be taken to form a series based on an increasing conceptual distance in the correlation of the Agent's action with that of the Agency. With English and German used as the languages of illustration, both are needed to represent the series in terms of expression by satellites, since only English has a satellite proper for the first case while only German has one for the third.

The conceptual difference between the first two cases is instructive. In the first case, expressed in English by *together (with)*[7], as illustrated in (18), the Agent acts in concert with the Agency -- i.e., both the Agent's action and the Agency's action are set in conception as equipotent components of a joint unity perhaps with each as essential for the existence of the whole. In the second case, expressed in English by *along (with* and in German by *mit- (mit-Dat)*, as illustrated in (19), the Agent acts in accompaniment or as an addition or adjunct to the Agency -- i.e., the Agency's action, which functions as a ground element and hence as a conceptual reference point, is treated as independent or basic and as the essential or definitional activity of the situation, whereas the Agent's action as figural entity is treated as an ancillary or incidental aspect of the total situation. (This second case is one manifestation of an extensive semantic system in language that distinguishes 'main' from 'ancillary'.) To contextualize

this conceptual difference for the situation of the illustrations, assume that "I" and "he" are each playing a piano on the same concert stage. Then, in the first case, he and I might be dual pianists, whereas in the second case, he might be a featured soloist whom I have joined to assist. Comparably, *I jog together with him* suggests that we schedule and execute our activity jointly and might not engage in it singly, whereas *I jog along with him* suggests that he has his own regular routine of jogging independently, whether or not I am present, but where I sometimes accompany him as an addition. Of note here is the fact that for both cases the referent situation can be indistinguishably the same with respect to its physical constitution. That is, the first two action correlations, 'concert' and 'accompaniment', function as conceptual structures overlaid or imposed on a substrate. They thereby constitute excellent examples for cognitive linguistics of conceptual imputation, a mind-to-world direction of fit, as opposed to the often-held notion that only properties in objects "out there" can be reflected in language in a truth-value oriented semantics or by a world-to-mind direction of fit.

The original stipulation that the second participant in an action correlation -- here distinctively termed the "Agency" -- can be either animate or inanimate was made to accommodate the observed linguistic patterns. For instance, in the examples for the first four cases of action correlating below, all three illustrative languages allow replacement of the "him" or its counterpart by "phonograph record" or its counterpart, as in the English *I played along with the phonograph record.* Comparably, the stipulation that the Agency's activity need only be in the same category as that of the Agent was made to accommodate the English and German satellite usage. For instance, in *Mary sang along with John*, John could be playing an instrument while Mary sings, and rendering a different harmonic part than she. Similarly, the German *Ich trinke mit* "I (will) drink along", can refer to my drinking but not eating after joining someone who is eating but not drinking.

In accordance with the general typology, the Spanish forms in the examples below express in the main verb the same concept of action correlation for which English and German mostly use satellites, though again, English has verbs borrowed from Romance, e.g., *accompany, join, imitate, copy*) with the same mapping pattern as their source language. As it happens though, the same-category affordance permitted in German and English does not hold in Spanish. For, in expressing the supporting event in an adjunct, Spanish generally must employ different constructions that distinguish between identical actions and same-category but different actions on the part of the Agent and the Agency.

(18) Eng: V together with NP 'act in concert with NP at Ving'

[I ACTed IN-CONCERT-WITH him] CONSTITUTED-BY [I played the melody]
I played the melody together with him.

(19) Eng: V along (with NP) / Gmn: mit-V (mit NP-Dat)
'act in accompaniment of / as an adjunct to // accompany / join (in with) NP at Ving'

[I ACTed IN-ACCOMPANIMENT-OF him]
CONSTITUTED-BY [I played the melody]
Eng: I played the melody along with him.
Gmn: Ich habe mit ihm die Melodie mitgespielt.
Spn: Yo lo acompañé cuando tocamos la melodia.
"I accompanied him when we played the melody." (both he and I played)
Yo lo acompañé tocando la melodia.
"I accompanied him [by] playing the melody." (only I played)

The third in the series of action correlations is the case where the Agent directs his own activity so as to be an imitation or copy of the Agency's activity, as illustrated in (20). Here again, the Agency's activity, as ground element, is the reference point in relation to which the Agent endeavors to shape his own activity as a figural entity. In particular, from observing the Agency's activity, the Agent endeavors to make his own activity similar or equivalent to the whole of or to selected structural aspects of the Agency's activity. Whereas in the first two cases the Agent's activity was concurrent with that of the Agency, here it follows that of the Agency, with the German *nach-* satellite prototypically suggesting that this delay is only a brief part-for-part lagging behind, though the interpretation is also available that the Agent's performance wholly follows the ending of the Agency's performance. Again, the Agency can be an inanimate device like a phonograph, and the Agency's activity can be identical to or only in the same category with the Agent's activity, so that the German sentence in (20) could equally well refer to a recorded vocalist that I imitate on an instrument. And, as before, Spanish employs its main verb to render the action correlation itself, while the adjunct specifies the activities and also distinguishes whether they are the same or different within the same category.

(20) Gmn: nach-V (NP-Dat) 'V in imitation of NP' / 'imitate / copy NP at Ving'

[I ACTed IN-IMITATION-OF him] CONSTITUTED-BY [I played the melody]
Gmn: Ich habe ihm die Melodie nachgespielt.
Eng: I played the melody in imitation of him.
Spn: Yo lo seguia cuando tocamos la melodia.
"I followed him when we played the melody." (both he and I played)
Yo lo seguia tocando la melodia.
"I followed him [by] playing the melody." (only I played)

In the fourth case of action correlating (illustrated in (21) with the English prefixal satellite *out-*), the Agent either marshals his activity to, or his activity simply does, surpass the Agency's activity, which is again used as a reference

point. In the specific context of a competition, the Agent thus 'beats' the Agency. As before, the Agency can be inanimate, as in *I outplayed the player piano*, but now the Agency's activity is limited to being the same as that of the Agent, not just to being of the same category, so that there is no **I outplayed the singer* in the sense that I played better than the singer sang. Spanish again uses its main verb to convey the correlation, but this time the gerundive adjunct can be used with the identical-activity interpretation, though apparently a different-activity interpretation is also possible.

(21) Eng: out-V NP 'surpass / best / beat NP at Ving'

[I ACTed IN-SURPASSMENT-OF him]
CONSTITUTED-BY [I played (the melody)]
Eng: I outplayed him. (cf: I outran / outcooked him.)
Spn: Yo lo superé tocando la melodia. "I surpassed him playing the melody."

Agency's Action is Fixed and Distinct from Agent's Action. In a fifth case of action correlating, expressed by the German satellite *vor-* and illustrated in (22), the Agent executes an activity so that it will function as a demonstration to an Agency that, in turn, will observe the Agent's activity. In the concept of 'demonstration' present here, the Agent has the knowledge and capacity to perform a certain activity which the Agency lacks. The Agent executes this activity so that the Agency can register it either as information about the Agent or as a model for learning to perform the same activity, and the whole situation can have the metaphoric sense of a transfer from the Agent to the Agency. This 'demonstration' case differs from the preceding cases in that the Agency's own activity is fixed, in particular as an activity of observation, and as such it regularly diverges from the Agent's activity -- a difference that merits a revised schematization of the original macro-event, shown first in (17). Further, this case stretches the preceding notion of correlating, which had been based on the interrelating of comparable activities, to a notion of the coordinating of complementary activities: specifically, those of demonstration and of observation. Still, this case -- in common with the others -- does relate the activity of one entity to that of another, and the mapping patterns are wholly comparable, with German expressing the relationship in the satellite, and Spanish -- this time together with English -- expressing it in the main verb.

(22) Gmn: vor-V NP-Dat 'demonstrate to NP one's Ving'

[Agent PUT Agent's Action IN-DEMONSTRATION-TO Agency's OBSERVATION]
CONSTITUTED-BY [Agent PERFORM]
[I ACTed IN-DEMONSTRATION-TO him]
CONSTITUTED-BY [I played the melody]
Gmn: Ich habe ihm die Melodie vorgespielt.
"I played the melody in demonstration to him."
Eng: I showed him how I / how to play the melody.
Spn: Yo le mostré como toco / tocar la melodia. (same as English)

6. Realization as the Framing Event. The fifth type of framing event is an event of **realization**, which itself is an encompassive category for a hierarchical pair of related types that will be termed **fulfillment** and **confirmation.**

6.1 Incremental Semantic Series Containing Realization Types. Since the semantic properties of these types are not very familiar, it may be best to begin with a demonstration, one which will involve an incremental series of four verbal patterns into which the two realization types fit, as illustrated in (23) in the agentive for a satellite-framed language, English.

(23) a. V: action; Sat: state-change resulting from that action
e.g.: kick 'propel foot into impact with' --vs.: kick flat
I kicked the hubcap. / I kicked the hubcap flat.

b. V: action + intention; Sat: fulfillment of that intention
e.g.: hunt 'go about looking with the intention of thereby finding and capturing'
--vs.: hunt down
The police hunted the fugitive for/*in 3 days (but they didn't catch him).
The police hunted the fugitive down in/*for 5 days (*but they didn't catch him).

c. V: action + intention + implicature of fulfillment of the intention
Sat: confirmation of that implicature
e.g.: wash 'immerse and agitate with the intention of cleansing thereby
+ implicature that cleansing occurred' --vs: wash clean
I washed the shirt (but it came out dirty).
I washed the shirt clean (*but it came out dirty).

d. V: action+intention+fulfillment of that intention; Sat: not relevant/usable
e.g.: drown 'submerge with intention of killing thereby + succeeding therein'
--no: *drown dead
I drowned him (*but he wasn't dead). / *I drowned him dead / to death.

6.1.1 Action. At the semantically simpler end of the series, as in (23a), the verb refers to a situation in which an Agent intends and executes what can be taken as a simplex action. The first relevant characteristic of this pattern is that the Agent's scope of intention extends only over the action itself, and no further (i.e., as far as the meaning of the verb per se is concerned). The second relevant characteristic is that the executed action can be conceptualized as a single qualitatively unitary action, as assessed at a certain larger scope of granularity. With this verbal pattern, the addition of a satellite adds a semantic increment that is wholly extrinsic to the referential content of the verb. For example, adding *flat* to *kick*, as in (23a), simply adds the meanings of the satellite and of the satellite construction to the meaning of the verb, so that the same act of kicking is now additionally understood to cause the named state change.

6.1.2 Action + Intention. The next verbal pattern is the fulfillment type of realization. Here, as before, the verb refers to an Agent intending and executing a particular action, the whole of which takes place. But here, in addition, the Agent's scope of intention extends beyond the execution of this action alone. Specifically, the Agent further intends that the action lead to a particular result, one that, within the referential scope of the verb, does not come about and whose eventual success or failure is left moot. With this verbal pattern, the addition of a satellite indicates that this intention to bring about a particular goal has in fact been fulfilled and the goal achieved. Here, the meaning of the satellite's addition is not independent of the meaning of the verb, but is sensitive to the internal structure of that semantic complex and complements it.

Thus, transitive *hunt* refers to going about looking, inquiring, tracking, etc. with the intention that this activity will lead to finding and capturing a particular animate entity and this verb, when used without a satellite, has unbounded aspect (cf. Talmy 1988a) and is moot regarding the outcome. The addition of the satellite *down* indicates that the intention was fulfilled, i.e., that the finding and capturing actually took place, where this combined event complex now has bounded aspect.

The fulfillment sense of this type of satellite construction can be regarded as a special kind of state change, one pertaining to ontology. The ontological state of the intended result that is expressed by the verb is originally **potential**, but the satellite indicates the change of this state to **actual**. Thus, when fulfillment is regarded as a kind of state change, one in ontology, it could be equivalently termed **actualization**. In effect, the verb by itself can be considered to express the **schema** for a desired result, while the satellite indicates that this schema has been "filled in", or actualized.

6.1.3 Action + Intention + Implicature of Fulfillment of Intention. In the third verbal pattern, the "confirmation" type, as in (23c), the verb expresses the same two components as in the preceding type, i.e., an Agent's intended and executed action plus his intention that this action lead to a certain desired result, but, in addition, the verb conveys a particular implicature: that the intention to

bring about the result has been fulfilled. The evidence for the presence of such an implicature is simply that the normal reading of a sentence containing this type of verb, even unaccompanied by a satellite, is that the desired goal is achieved. However, this component of the verb's meaning is merely an implicature, since this reading is defeasible by a disclaiming phrase.[8] With the addition of a satellite, though, the achievement of the intended result is now certain and not merely a defeasible implicature, so that any disclaiming phrase is now unacceptable. That is, the addition of the satellite **confirms** what otherwise is only implicated, hence the term for this type of realization.

Thus, the (23c) sentence *I washed the shirt* not only indicates that I immersed and agitated the shirt in liquid with the intention of getting it clean as a result, but, with nothing further added, also implicates that the shirt in fact got clean -- an implicature, though, that can be defeated by adding *...but it came out dirty*. However, the addition of the satellite *clean* certifies that the verb's original implicature has now extended beyond that status to become a claimed fact.

While English is not rich in the confirmation type of verbal pattern, another example of it may be in the verb *call*, which indicates dialing a number with the intention of thereby telephonically connecting with a party, together with the implicature that this connection has occurred. Thus, the sentence *I called her* by itself standardly implicates my reaching her, but this implicature is readily defeated, as in *I called her three times but there was no answer*. And, for some speakers at least, the addition of the satellite *up* confirms the connection and thus precludes a disclaimer: *I called her up (*but there was no answer)*. But while English has only scattered examples of it, this verbal pattern is a major type in other languages, e.g., Mandarin, as illustrated below.

In both English and Mandarin, the satellites expressing realization, either fulfillment or confirmation, are of two kinds. The satellite can explicitly name the verb's intended result -- as *clean* does relative to *wash* -- or the satellite can have a meaning not related (unless metaphorically) to the verb's intended result, as is the case with *down* relative to *hunt* and *up* relative to *call*. In the former case, the satellite indicates fulfillment or confirmation virtually by making a separate assertion of the concept at issue; whereas, in the latter case, the satellite acts as an abstract marker of the realization factor per se, and in this way is cleaner evidence of realization as a conceptual category in its own right.

As seen earlier for the fulfillment case, the meaning of the confirmation satellite is -- especially for the second kind of satellite -- not independent of the verb's meaning, but is sensitive to its internal semantic structure and complements it. In this case, it does so by addressing the verb's incorporated implicature and confirming it, or in effect, upgrading it to the lexical equivalent of an assertion.

And, as before, this confirmation sense of the confirmation type of satellite construction can be regarded as a special kind of state change, one pertaining this time not to ontology but to epistemology. What is here operative at root is

the epistemic state of the speaker -- and the corresponding epistemic state that the speaker aims to induce in the addressee -- with respect to the 'intended result' component of the verb's meaning. With the satellite absent, the speaker is **presumptive** of the occurrence of the intended result; whereas, with the satellite present, the speaker is **certain** of the occurrence of the intended result. However, by a process that can be termed **objectivization**, these originally epistemic states of the speaker can be converted into so-conceived objective properties of the 'intended result' component itself. Thus, with the satellite absent, the counterpart "objective" state of this component is that it is **apparent**, while with the satellite present, the counterpart "objective" state is that it is **definite**.

To expand on the notion of objectivization: it is a major process found in the conceptual organization of language whereby a sentient being's subjective cognitive state regarding some external entity is projected onto that entity in a counterpart form that is then conceived as an objective property of that entity itself. A ready example of this process is seen in a formulation like *The cliff is beautiful*, which seems to assert that the cliff has an objective property of 'beauty', in the same way that *The cliff is white* predicates an objective whiteness of the cliff. It is alternate constructions like *The cliff is beautiful to me* or *I find the cliff beautiful* that directly represent the non-objectivized subjective evaluation or affect of an observing experiencer.

6.1.4 Action + Intention + Fulfillment of Intention. In the fourth verbal pattern of the incremental series, as in (23d), the verb expresses the same two factors as in the second and third types -- i.e., an Agent's intended and executed simplex action plus his intention that this action lead to a certain desired result; however, in addition, the verb indicates neither a moot outcome nor simply an implicature of the fulfillment of the further intention, but rather the actual fulfillment of that intention. A verb of this type cannot add a satellite sensitive to and complementing the verb's internal semantic structure -- specifically to indicate the realization of unrealized aspects, since all the conceptual elements referred to by the verb are in fact realized. English, in fact, tends to disfavor even a semantically pleonastic satellite with such a verb. Thus, English *drown* indicates that an Agent intentionally executes the action of submerging an animate entity in liquid, that the Agent further intends that this action will lead to the death of the animate entity, and that this death in fact takes place. This verb, further, does not allow the addition of what would be a redundant satellite constituent such as *dead* or *to death*, as in *I drowned him *dead / *to death.*

Characterized in this way, therefore, the referent of a verb of the fourth pattern is understood as semantically complex, consisting of two qualitatively distinct sub-events, one that is earlier than the other and intended to cause it. However, it is not clear that this putative fourth-pattern verb can be systematically distinguished from the putative first-pattern verb, either by formal syntactic criteria or referentially. It may be that the putative first and fourth verbal patterns really comprise only a single referential type on which can be imposed either of

two conceptual structures with different granularities. For example, the referent of *kick*, earlier described as a unitary simplex action of the first pattern, could, under a finer-grained conceptualization, be alternatively construed as a fourth-pattern actional complex in this way: an Agent intentionally executes the action of thrusting his foot forth, he further intends that this action lead to an impact of the foot with a specific object, and this impact takes place (cf. the comparable Mandarin analysis below). In the other direction, the referent of *drown* could alternatively be construed, under a more coarse-grained conceptualization, as a unitary Gestalt action.

6.2 Cline in Strength of Implicature. The implicature associated with the third type of verbal pattern, the *wash* type, apparently behaves not as a discrete factor that is either present or absent, but as on a cline with different degrees of strength, possibly in part correlating with different strengths of the Agent's intention for a further result. Thus, in (24), the first three verbs for some speakers show increasing degrees of implicature of the fulfillment of an intention to kill, while the fourth verb, included as a reference point, no longer implicates but asserts the killing.

(24) The stranger (a) choked / (b) stabbed / (c) strangled / (d) drowned him.

Choke appears to range from having no implicature of killing for some speakers -- referring solely to the action of squeezing in upon the neck -- to having a slight implicature of killing for other speakers. For the second group, the example with *choke* in (24) can be fairly felicitously followed by a denial constituent like *...but he was still alive when the police arrived.*

Stab seems to implicate killing more strongly, to be felt to do so by more speakers, and to combine well with the same denial clause.

For some speakers, *strangle* entails killing as fully as does *drown*, and if these speakers also sense no implicature of killing in either *choke* or *stab*, then the whole series in (24) cannot serve for them as a demonstration of an implicational cline. However, other speakers do find in *strangle* a slight opening for the possibility of unrealized killing, and can follow the sentence with the denial clause: *The stranger strangled him, but he was still alive when the police arrived* -- especially if these speakers are asked to compare this sentence with one containing *drown* instead, which for them clearly precludes denial. Such speakers, thus, have in *strangle* an excellent example of very strong implicature that is nonetheless only an implicature and not determinate.

As represented in (25), the increasing degree of implicature of fulfillment across the four example verbs tends to correlate with the verbs' decreasing ability to take a satellite that confirms the fulfillment, perhaps because such confirmation would be increasingly redundant.

(25) The stranger choked / stabbed / ?strangled / *drowned him to death.

6.3 Lexicalized Implicature. The implicature of the third type of verbal pattern, the *wash* type, represents a semantic-syntactic phenomenon that, to be understood adequately, must be narrowed in on through a series of contrasts with related but distinct phenomena. To take *wash* through this progression of contrasts, we first note that a part of the meaning of *wash* is the Agent's intention to make the Patient clean, in contrast with the otherwise comparable meaning of *soak*, which lacks such a notion of intention. Evidence for this is the fact that *soak* but not *wash* can occur felicitously in reference to a situation that precludes cleansing, as in: *I soaked / ??washed the shirt in dirty ink.*

Second, in addition to an Agent's *intention* to make clean, the use of *wash* as in *I washed the shirt* implicates that the Patient *becomes* clean, even without any explicit mention of cleanness -- as contrasted, say, with the use of *soak* in *I soaked the shirt*, whose use makes no such suggestion.

Third, the notion of the Patient's becoming clean is *only* an implicature and not an essential part of the meaning of *wash*, since that notion can be denied, as in *I washed the shirt, but it came out dirty*. By contrast, in the meaning of the verb *clean* the notion of 'becoming clean' *is* an essential and hence non-deniable part, as seen in **I cleaned the shirt, but it came out dirty* (that is, where *clean* is not used in the sense of sending to the cleaners).

Fourth, the notion of 'becoming clean' that we find associated with *wash* cannot be present simply by virtue of being part of some larger metonymic frame, e.g., where *wash* would refer directly only to the action of immersion with agitation, which would act as a metonym for an expanded frame that further included getting clean, drying, and putting away. Evidence against such an interpretation is that it is perfectly felicitous to say *I washed the shirt and left it wet*, thus cancelling the 'drying' component of the putative frame, but it is not felicitous to say *??I washed the shirt and left it dirty*, which cancels the 'making clean' component, even though by the metonymic interpretation both these components are equally part of the frame.

Fifth, while pragmatic theory has a notion of "conventional implicature" that is associated with a lexical item, e.g., the implicature of 'contrast' that is associated with the morpheme *but*, this kind of implicature is not defeasible (cf. Levinson 1983). By contrast, the implicature of 'becoming clean' that is associated with *wash* is indeed defeasible, as in *I washed the shirt, but it came out dirty*, so that this cannot be an instance of conventional implicature.

By zeroing in this way on the implicational phenomenon exhibited by a word like *wash*, one must conclude that it is distinct from linguistic phenomena previously described. It is a defeasible implicature associated with a lexical item, and thus presumably part of the lexical content. I propose the term **lexicalized implicature** for this linguistic phenomenon.

6.4 Typological Difference in the Expression of Realization. Languages that systematically express realization appear to divide into the same two typological categories we have seen on the basis of whether the realization is expressed in

the main verb or in the satellite, and this assignment appears to align with that of the other framing categories. That is, satellite-framed languages that employ the satellite to express Path, temporal contour, changed state, and action correlation also extend that set to include realization, while verb-framed languages tend to employ the main verb to express the full set of five categories. Apparently, in the organization of conception for linguistic expression, realization is set into analogy with the other framing event types in something like the following way: as the space domain has motion from elsewhere to a particular location, and as the state domain has change from the absence to the presence of a particular property, so the realization domain has transition from a potential stage to an actualized stage of realization, or from an assumed degree to a definite degree of realization. Reinforcing the analogy, realization can, as we saw, be interpreted as a specialized kind of state change, pertaining to ontological and epistemic states. This analogy can be captured by the conceptual structure assumed for a realization-type macro-event, as schematized for fulfillment in (26a) and for confirmation in (26b).

(26) a. [Agent "$_{A}$MOVE" TO FULFILLMENT the INTENTION (to CAUSE X)]
IN [Agent ACT + INTEND to CAUSE X THEREBY]

b. [Agent "$_{A}$MOVE" TO CONFIRMATION the IMPLICATURE
of the FULFILLMENT of the INTENTION (to CAUSE X)]
IN [Agent ACT + INTEND to CAUSE X THEREBY
+ IMPLICATURE of the FULFILLMENT of the INTENTION to CAUSE X]

Although the confirmation type of realization is minimal in English and many other familiar languages, some languages have an extensively developed system of lexicalized implicature and confirmation thereof. Two such languages are Mandarin and Tamil, representing the two typological categories of satellite-framed and verb-framed languages, respectively.

6.4.1 Mandarin: a Satellite-Framed Language Exhibiting Realization. Mandarin is a strongly satellite-framed language, regularly using its satellites to specify Path, aspect, state change, some action correlation, and much realization. Perhaps the majority of its agentive verbs are of either the fulfillment or the confirmation types of realization, with the latter apparently the more strongly represented. Some examples are in (27)-(29).

(27) a. wǒ kāi le mén (dàn-shì mén méi kāi)
I open PERF door (but door not-PAST open)

b. wǒ kāi kāi le mén
I open(V) open(Sat) PERF door

(28) a. wǒ shā le tā (dàn-shì méi shā sǐ)
I kill PERF him (but not-PAST kill dead)

b. wǒ shā sǐ le tā
I kill dead PERF him

(29) a. wǒ tī le tā (dàn-shì méi tī zháo)
I kick PERF him (but not-PAST kick into-contact)

b. wǒ tī zháo le tā
I kick into-contact PERF him

To explicate the semantics, the meaning of (27a) without the parenthetical addition is that I acted on the door in order to open it, with the implicature that the door in fact left the jamb. However, the interpretation that I did not succeed in moving the door from the jamb remains a possibility, one that has greater or lesser prominence in the hearer's attention according to the context. For example, adult speakers report frequent suspicion of their children's implicatures: child: "I opened the door", parent: "Yes, but did you open it open?". With the parenthetical addition, (27a) suggests that I worked at getting the door open, e.g., trying to get the key to turn, twisting the doorknob and shoving, etc, but that the door still never left the jamb. With the confirmational satellite in place in (27b), however, the sentence is now an undeniable assertion that I succeeded in moving the door from the jamb. Comparably, the first clause in (28a) means that I assaulted a person with the intention of killing him and with the deniable implicature that I succeeded. And the first clause of (29a) means that I kicked my foot out at someone with the intention of connecting and with the deniable implicature that I did make the impact.

Of course, the English verbs used to gloss the Mandarin verbs here, e.g., *open, kill, kick*, do not really correspond in meaning, hence. they can be misleading. For example, a sentence gloss like "I killed him but he didn't die" is genuinely paradoxical in English but thus incorrectly represents the non-paradoxical Mandarin original, which would be more closely rendered as "I assaulted him with intent to kill (and with what would otherwise have been the presumption of killing), but he didn't die". The difference is that the English verb is generally construed to refer to a simplex action of the first verbal pattern -- in particular, to specify the attainment of a certain final state with neutrality as to the particular actions that led up to it. Accordingly, an English verb in the frame cited above leads to a paradox because the follow-up clause contradicts the verb's assertion that its particular final state was attained. In Mandarin, by contrast, the referential terrain covered by a typical English verb is conceptually divided as in the third verbal pattern into two portions: the final outcome, conclusively confirmed by a satellite, and an action that is performed with the intention that it lead to that outcome, indicated by the verb. Accordingly, the unitary

referent of an English verb often has as a counterpart in Mandarin a two-part conceptualization expressed by a verb plus a satellite. Thus, we have already seen the counterpart of 'kick' as "'propel the foot so as to impact with' + 'into impact'", of 'kill' as "'assault so as to kill' + 'to death'", and of 'open' as "'work on so as to open' + 'ajar'". In the same way, we observe the counterpart of 'cure' as "'treat so as to cure' + 'to health (lit.: good)'", of 'break' (e.g., snap a stick) as "'squeeze circumpivotally in upon so as to break' + 'broken'", and of 'select' as "'deliberate over so as to choose among' + 'into choice'".

6.4.2 Tamil: a Verb-Framed Language Exhibiting Realization. Tamil is a language that systematically expresses realization, but is the typological complement of Mandarin. Tamil is a verb-framed language using its finite-inflected verb for the expression of at least Path and aspect, as well as for the expression of realization. Unlike Mandarin, in which confirmation is indicated by any one of numerous satellites determined by the particular lexical verb that is present, Tamil uses a single specific verb to express confirmation per se (although apparently other verbs, mainly serving other functions, do also express confirmation). The examples in (30) illustrate.

(30) a. Nāṉ avaṉai koṉṟēṉ.
I he-Acc kill(Finite)-Past-1s
'I killed him.'

Āṉāl avaṉ cāka-villai.
but he die-Neg
'But he didn't die.'

b. Nāṉ avaṉai koṉṟu-(vi)ṭṭēṉ.
I he-Acc kill(Non-Finite)-leave(Finite)-Past-1s
'I killed him.'

*Āṉāl avaṉ cāka-villai.
but he die-Neg
*'But he didn't die.'

7. Conclusion. This paper has omitted much material, already developed, that would extend the theoretical and cognitive framework and provide linguistic demonstration for more of the analysis.[9] However, as it stands, I believe this paper has shown that there is psychological reality to a certain fundamental conceptual entity with possibly universal linguistic expression. This entity can be conceptualized either as a complex event, consisting in turn of a minor event related to a major event, or as a single fused event. The fact that this second alternative is readily expressed by core constructions in any language is evidence for our robust cognitive capacity to integrate certain large amounts and diverse kinds of conceptual material into a single monad. The body of this

paper has primarily been spent documenting the particular patterns and structuring of conceptual material that enter into the present specific process of monad formation. But as a whole, the paper is intended as a contribution on conceptual integration and unification as a fundament of human thought.

NOTES

1. With my thanks to them, the sources of the non-English forms cited are, for German, Elisabeth Kuhn, Luise Hathaway, and Wolfgang Wölck; for Mandarin, Jian-Sheng Guo; for Spanish, Jon Aske, Guiermina Nuñez, and Jaime Ramos; and for Tamil, Eric Pederson and Susan Herring. In addition, I am indebted to Eric Pederson, David Wilkins, Patricia Fox, and Ruth B. Shields for valuable discussions on the material of this paper.

2. Certain end-of-sentence gerundives in Spanish and certain *-te* constituents in Japanese may be interpreted syntactically as adverbial subordinate clauses, so that the overall construction would be a complex sentence, which could therefore not represent a macro-event. But both languages also have constructions with the supporting verb in direct construction with the main (framing) verb alone, thus rendering the whole sentence a single clause that now does represent a macro-event (cf. Matsumoto, 1991). The difference is seen, for example, in Spanish *La botella salió de la cueva flotando* and *La botella salió flotando de la cueva.* In Nez Perce, the supporting constituent is adjoined to the main verb root (the framing constituent) as a *prefix*, i.e., as an unmistakable satellite -- which can be termed a **supporting satellite** -- so that the whole sentence is now also unmistakably a single clause.

3. For Motion, this paper's two-category typology concerns only whether the Path appears in the verb or in the satellite. The three-category typology in Talmy (1985) further subdivided languages with the Path in the satellite on the basis of which of two further macro-event components appears in the verb. The three-category typology thus concerns whether the verb expresses the Path (as in Spanish) or -- for Path-in-satellite languages -- the supporting event (as in English), or the Figure (as in Atsugewi).

4. This Spanish type was independently noticed by Jon Aske.

5. It remains to clarify why the syntactic pattern in Spanish for temporal contouring differs from that for Motion as to the constituent in which the supporting event's Patient is expressed. For example, the Spanish for (3a) is **not**: **Terminé la carta, escribiéndola*, "I finished the letter, writing it".

6. For some English speakers, the *away* satellite indicates total disappearance, so that for them, *The meat rotted away* suggests nothing more than a brown stain left on the table. For other speakers, however, the satellite's sense permits a residue.

7. The sense of *together* addressed here is that of 'concert' as contrasted with 'accompaniment', not the sense of 'co-location' as contrasted with 'separation'.

8. This type of verbal pattern was first described by Ikegami (1985) with respect to Japanese and was called to my attention for Mandarin by Jian-Sheng Guo.

9. An additional section, "Evidence that the Framing Satellite Expresses the Main Event", appears in Talmy (1991).

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