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Written Interview on my Work conducted by Iraide Ibarretxe: Part 1

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Question 1 *One of your most influential areas in linguistic research is your analysis of the event structure of motion and the theory of lexicalization patterns. This theory goes back to your PhD dissertation at UC Berkeley and it has been refined over the years. At the beginning, you proposed a three-way classification of languages based on the conflation of semantic components (Talmy 1972, 1985), and then you reduced it to two patterns, verb-framed and satellite-framed, a classification which is more focused on morphosyntactic criteria (Talmy 1991, 2000b). Why this change?*

Actually, there is no change at all. Each of the two classifications represents a different perspective taken on the relations between the semantic level and the morphosyntactic level. These two different perspectives are set forth in Talmy (2000b, chapter 3) under section 2.3 titled "The complementarity of two typological perspectives". The original perspective, now seen in Talmy (2000b, chapter 1), kept constant a particular morphosyntactic constituent, and looked to see which semantic component was characteristically placed in that constituent by various languages. For the most diagnostic case, the verb root was kept constant, yielding the primary typology. It was found that most languages characteristically express either the Path, or the Co-event, or the Figure in the verb root, although some further options were seen to occur. A subtypology then looked at another constituent or constituent complex -- the satellite and/or preposition -- to see, for each language type, which of the remaining semantic components characteristically appeared there.

The later perspective, now seen in Talmy (2000b, chapter 3), reversed the original perspective. It kept constant a particular semantic component, and looked to see which morphosyntactic constituent it was characteristically placed in by various languages. For the most diagnostic case, it kept constant the Path component -- or, more generally, the "core schema" -- which, as was argued, functions as the core of what structurally "frames" the entire event at the semantic level. It could then be seen that most languages characteristically place the Path component either in the verb root (in a "verb-framed" language) or in the satellite and/or preposition (in a "satellite-framed" language), though some additional options are possible. This was the primary typology from the second perspective. Then, as a subtypology, the Co-event could be held constant and be tracked to its

characteristic morphosyntactic locus of _expression in each language -- a locus other than the characteristic locus for Path in that language.

Both these perspectives can of course be observed at the same time in any given language. For example, under the second perspective, both English and Atsugewi are satellite-framed languages in that, if we look to see where the Path shows up, we find it characteristically expressed in the satellite and/or preposition. At the same time, under the first perspective, we can look at the verb root to see what shows up in it, and we find that the Co-event is characteristically expressed there in English, while the Figure is expressed there in Atsugewi. The entire picture of semantic-morphosyntactic relations in any given language type can be seen at a glance by writing the (structurally bracketed) components of the semantic tier in one row, writing the (structurally bracketed) constituents of the morphosyntactic tier in a row beneath that, and drawing (sometimes crisscrossing or branching) lines between the relevant elements of the upper and lower rows. The two perspectives outlined above then simply refer to different ways of tracing along those lines. Tracing for the first perspective can be characterized as: which semantic component(s) appear in a given morphosyntactic constituent. Tracing for the second perspective can be characterized as: a given semantic component appears in which morphosyntactic constituent(s).

To clearly keep these two perspectives separate, I propose a bit of additional terminology. I will say that the first perspective yields the "Motion-actuating typology". The reason is that the verb in a sentence can generally be considered to be the constituent type that activates or energizes the proposition represented by the sentence. Hence, whichever semantic component of a Motion event gets expressed in the verb -- the most diagnostic morphosyntactic constituent of this perspective -- can be considered to actuate the Motion event represented by the sentence. In turn, the second perspective yields the "Motion-framing typology", since Path -- the most diagnostic semantic component of this perspective -- can be considered to frame or structure the whole Motion event.

Question 2 *Speaking about the different lexicalisation patterns in verb-framed and satellite-framed languages, some linguists, especially those coming from the European tradition, have pointed out that the differences between these two patterns are not at all new in linguistic analysis, and that linguists such as Bally (1965) and Tesniere (1959) had already noticed that languages like French and English lexicalise motion in different ways. What does your approach have in common with these analyses and how does it differ from them?*

While I have not closely examined the work of Bally and Tesniere on this issue, my impression is that, although they may have distinguished between what I call "Path" and "Manner" and observed that languages like French and German express these differently, they did not provide a systematic or general account of the phenomena involved.

Such an encompassing theoretical account would need to include at least the

following provisions. At the semantic level, the phenomena at issue arise within the context of a certain entire coherent event -- prototypically one of motion or of llocatedness. This event is universally partitioned into four components -- the occurrence of motion or location per se (Motion), the moving or located object (the Figure), the Figure's path or site (Path), and the reference object with respect to which the Path is characterized (the Ground). In addition, this Motion event is commonly associated with a further event (the Co-event) that most often represents its Manner. More generally, the Co-event can represent some ten relations to the Motion event, including Precursion, Enablement, Cause, Concomitance, and Subsequence. These semantic components can variously appear in different syntactic constituents. Languages fall into a typology on the basis of the component that characteristically appears in the verb root, and are further subdivided by the component that then appears in a satellite and/or preposition. French and German exemplify just two categories within the typology, respectively placing the Path and the Co-event in the verb root; Atsugewi exemplifies a third category by placing the Figure in the verb root; and other languages exhibit still further options that fill out the typology. This entire pattern exhibits a further generalization: where a language characteristically places the Path component of a Motion event, it typically also places the corresponding component of four further types of non-Motion events, including the changed state in an event of state change, and the aspect in an event of temporal contouring.

If Tesniere and Bally in fact laid out this framework at this level of theoretical abstraction, then the priority is indeed theirs. But if not, then their observations might better seem to fit the category of the initial gathering and sorting of phenomena that in time can lead to a systematic account. In fact, it would be surprising if the expressional differences between French and German or English had not been noticed and commented on before. Perhaps a comparable case can be found in what I have termed "fictive motion". The existence of sentences like *This road goes from Paris to Bonn* had been observed and commented on by many linguists. But it might be thought that such treatments did not reach the level of a theoretical framework until they were placed beside a systematic range of further fictive types and given an overall cognitive account within a theory of general fictivity.

Question 3 *In recent years, there has been an increasing number of studies discussing your two-way typology and applying it to an incredibly wide range of languages. This, of course, indicates that your theory is a useful tool for typological analysis. On the other hand, these studies have also shown that your typology gives rise to certain problems and limitations. I would like to discuss some of these problems in more detail, as well as the solutions that have been proposed to solve them. Let us start with the first criticism.*

According to some authors (Ameka and Essegbey, in press; Slobin and Hoiting 1994; Slobin 2004; and Zlatev and Yangklang 2004, among others), one of the main shortcomings of your theory is that some languages do not seem to fit in

your binary typology. In these languages, the notions of "main verb" and "satellite" -- the distinguishing means to express path in your dichotomy -- are not at all evident or that useful. There are many reasons for this: the language does not have one and only clear main verb as in serial verb languages, the language shows verbs consisting of two morphemes -- one for manner and one for path -- both of equal status as in Hokan and Penutian languages (DeLancey 1996), the language has a small number of general verbs that can be combined with preverbs expressing manner and path as in the Australian language Jaminjung (Schultze-Berndt 2000), and so on. How would you account for the behaviour of these languages? Do you see them as real counterexamples for your typology?

Question 4 *One of the possible solutions that has been put forward is the addition of a third type of lexicalization pattern. Slobin (2004), for instance, proposes what he calls an equipollently-framed category; this would cover all those languages that present problems for the original typology. What is your opinion about the inclusion of a third-type?*

There is nothing in principle the matter with extending my framing typology to include a third category of indeterminate framing, that is, Slobin's "equipollently framed category" . After all, I comparably added further categories to my Motion-actuating typology in going from Talmy (1985) to Talmy (2000b, ch. 1). Both of those works considered which semantic components of a Motion event could, as the characteristic pattern of a language, be represented in a verb root -- conflated there together with '(Fact of) Motion'). The earlier work cited only three possibilities: the Figure, the Path, and the Co-event (or what I then called "Manner/Cause"). It also considered three additional possibilities that seem never to function as characteristic patterns, though they do occur as minor patterns: Motion plus Ground, Motion plus two semantic components, and Motion plus no further semantic component. The later work, though, added three further characteristic patterns: Motion plus a minimally differentiated semantic component, a split system of conflation, and a parallel system of conflation. And it considered one additional pattern that might never be instantiated: an intermixed system of conflation. Returning to the Motion-framing typology, it is quite possible that similar further patterns might exist there.. Thus, besides languages that characteristically represent Path either in the main verb root or in a satellite and/or preposition, languages might be found that represent Path in both of these constituents jointly, or represent it with a split pattern, or with a parallel pattern, or perhaps with an intermixed pattern. Slobin's proposal of an indeterminate or equipollent pattern is novel, and should certainly be examined further. I contribute to this examination in the remainder of my response.

In Slobin's notion of equipollent framing, a language is seen to have two constituent types in a Motion sentence, one of them characteristically representing Path and the other characteristically representing the Co-event, with the latter usually considered only for its value of Manner. The two constituent types together

form all or part of a larger verb complex. But the linguist judges that the language does not privilege either of these constituent types as being the main verb or some other kind of head or dominant category, nor mark the other constituent type as being a satellite or other kind of dependent or subordinate category. I suggest that Slobin's equippollent framing has two main applications. In the first application, the two constituent types together are seen as serving something like a main verb function. This covers the polysynthetic and serial verb constructions discussed next. In the second application, a third constituent type is seen as serving the main verb function, while the first two constituent types, either singly or together, are outside such main verb function. This covers the Jaminjung case discussed last.

Again, insofar as such an indeterminate condition may occur, I agree that the proposed form of equipollence is the right way to view it. But I suggest that the criteria used for judging main verb status have been too few, and that an expanded set of criteria might show a broader tendency among languages appropriate for the first application in fact to privilege one of the constituent types in question with main verb status. If so, then true equipollent framing might be rarer than proposed, perhaps even nonoccurrent, and if occurrent, possibly an unstable stage that a language tends to transition out of with relative diachronic speed.

In (1) is an expanded set of proposed factors that tend to indicate that a language treats a particular constituent type as its main verb or verb root. Quite possibly none of these factors is criterial for main verb status. Rather, different subsets of the factors apply to a specific constituent type in different languages, with no individual factor emerging as crucial. The more factors that converge on a particular constituent type in a language, the more that that constituent type is being privileged with main verb status. Some languages exhibit what can be considered a split system of main verb status in that one subset of the factors applies to one constituent type, while another subset of factors applies to another constituent type.

(1) factors that tend to mark a particular constituent type as the main verb (root)
Of two constituent types in a language that can be considered for having main verb status,
one of them ranks higher for that status--
a. morphology
if it can take inflections or clitics for such semantic categories as
tense, aspect, mood, evidentiality, negation, causation, voice, transitivity,
or the person, number, and gender of the subject (and object).
b. syntax
if, as head, it directly or nestedly forms constructions
with such other sentence constituents as: adverbs;
particles for place, time, aspect, quantity (e.g., fbats), negation, etc.;
or a subject or object nominal.
c. cooccurrence patterns
if its presence is required across a range of construction types,
while the other constituent type need not or can not be present
in some of those construction types.
d. class size
if it has more morpheme members or is open-class
while the other constituent has fewer morpheme members or is closed-class
e. phonology
1. if its morpheme members have a greater average phonological length.
2. if its morpheme members vary over a greater range of phonological length or pattern.
3. if its morpheme members include phonemes ranging over a greater portion
of the phonemic inventory of the language.
f. semantics
1. if the meanings of its member morphemes tend to have more substantive content
greater specifi city,
and a greater number of more varied conceptual components associated together
in more intricate relationships,
while those of the other constituent type tend to have less of these.
2. if the meanings of its member morphemes range over a greater variety
of concepts and types of concepts and trail off into more outlying conceptual areas,
while those of the other constituent type
tend to fi t a more stereotyped semantic category.

3. if it is experienced by speakers of the language as contributing
   the criterial component of "actuation" to the proposition
   that is otherwise represented by the sentence.

Could you give us an example, that is, could you show us how you would apply these factors to the study of one language in particular? Before using them to help resolve less clear cases, the factors in (1) can be checked out for English. Here, all the factors except the (1e) phonological ones seem to hold. To illustrate, we can consider for main verb status the constituent type instantiated by the morpheme *roll* and the constituent type instantiated by the morpheme *down* in the sample sentence *My neighbor seldom rolls down his shades*. The former constituent type ranks higher for main verb status first because it exhibits factor (1a) -- e.g., here taking the inflection *-s* representing present tense, habitual aspect, and indicative mood, as well as third person and singular number for the subject. The constituent type here instantiated by *down* does not take inflections. The former constituent type also exhibits factor (1b). Here, for example, *roll* is the head of the construction it forms with *down*, not vice versa. And it further functions as the head of constructions -- involving various degrees of nesting -- that it forms with the temporal particle *seldom*, with the object nominal *his shades*, and with the subject nominal *My neighbor*. *Down* does not do any of these. The former constituent type further exhibits factor (1c) in that some representative of it must be present in a range of sentence types, whereas the constituent type here represented by *down* can or must be excluded from many of those sentence types. By contrast, the reverse pattern -- that is, sentence types in which the *down* type of constituent must be present, while the *roll* type of constituent is optional or blocked -- is minimal at best. The former constituent type additionally exhibits factor (1d) in that it is an open class with hundreds of morpheme members, whereas the constituent type here represented by *down* is a closed class with only a few dozen members. Finally, the former constituent type exhibits all three parts of factor (1f). Its member morphemes on average have greater and more specific semantic content, with more semantic elements of different types together -- as *roll* here does relative to *down*. They also range over a greater variety of meanings -- as, say, *roll*, *burrow* and *gush* do relative to *down*, *out* and *across* -- where the latter tend to fill out a more stereotyped semantic category of path. (To be sure, the greater specificity and range of the former constituent type accord with its greater class size, though, in principle, these two factors need not be correlated). And they provide the actuating or dynamizing feature -- as *roll* does in the example sentence.

Note that the factors in (1) are on purpose formulated generically, not in terms of Motion or any of its components such as Path or Manner. The reason is that main verb status should be independently based on properties neutral to the issue that prompted its explication. A quick look at Spanish might illustrate the need to emphasize this point. Consider a sentence like *La botella entró flotando a la cueva*, 'The bottle entered floating to the cave' -- that is, "The bottle floated into

the cave". The constituent type here instantiated by *entró* -- let's call it constituent type 1 -- ranks higher for main verb status than the constituent type here instantiated by *flotando* -- let's call it constituent type 2 -- with regard at least to the first three factors of (1). Constituent type 1 takes many of the inflections indicated in (1a), while constituent type 2 takes none of them. It has more of the syntactic "head properties of (1b) than constituent type 2. And it has the cooccurrence privileges of (1c): it must occur across a range of construction types for which constituent type 2 is only optional. Assuming as for English that any (1e) phonological differences between the two constituent types is negligible, what about the class size and semantic properties of factors (1d) and (1f)? Consider the findings if we were to allow the approach of limiting the examination to characteristic Motion-expressing sentences, and hence of limiting constituent type 1 to morphemes expressing Path and constituent type 2 to morphemes expressing Manner. Constituent type 1 would now be smaller in class size than constituent type 2, since the former would range only over those morphemes expressing basic Paths (Path verbs), while the latter would cover the rather larger group of morphemes expressing Manner (Manner verbs). And with respect to the semantic factor (1f), the Paths expressed by the morphemes of constituent type 1 would be semantically rather spare and sterotyped, while the Manner-expressing morphemes of constituent type 2 would cover a more varied and more intricate set of meanings. For these two factors, then, constituent type 2 would rank higher in main verb status than constituent type 1. However, (1) is deliberately set up to address the entire morpheme complement of each of the two constituent types under comparison, not just some subset of that complement. On that basis, one would need to consider all the morphemes that can serve as constituent type 1, not just the Path verbs, as well as all the morphemes that can serve as constituent type 2, not just the Manner verbs. It is not clear how this intended comparison would turn out in the case of Spanish, but it is likely that the class size and semantic diversity of the two constituent types would be more comparable, if not tilted in favor of constituent type 1.

You have applied (1) to two languages, English and Spanish, where the status of main verb is quite well established and to some extent, not so problematic, but what about other more problematic cases, such as polysynthetic and serial verb languages?

Let me now apply the factors in (1) to Atsugewi, a Hokan language of northern California and the language of my fieldwork. Atsugewi is a polysynthetic language, that is, the core of the sentence is a complex constituent in turn consisting of a number of morphosyntactically distinguishable constituents that occupy distinct position classes in a specific sequence relative to each other, all of them morphologically bound. This constituent as a whole gains some ranking as main verb in that it takes many of the kinds of inflections listed under factor (1a), and it relates syntactically to other sentence constituents much as described under factor

(1b). On this basis, I call this polymorphemic constituent a "verb complex". But what about the distinct constituent types within this verb complex. Might one of them exhibit enough of the remaining factors to merit status as the verb root of the complex? The evidence below converges on just such a conclusion.

Delancey's (1989) analysis of Klamath -- a Penutian language geographically near Atsugewi -- stands as the main claim to equipolent framing within a polysenthetic verb. That paper cites Atsugewi as behaving in a way similar to Klamath, and proposes an areal basis for such similarity. But the conclusion below that Atsugewi does single out and privilege a particular bound constituent type as the verb root at least removes Atsugewi from Delancey's claim, and might in turn suggest another look at Klamath from the present perspective.

In one of its most characteristic patterns, an Atsugewi verb complex that expresses a Motion event has at its center a tripartite stem, that is, a stem consisting of three distinct constituent types (themselves in turn surrounded by potentially numerous derivational and inflectional affixes). The first of the three constituent types has morpheme members that prototypically refer to the kind of immediately prior event that caused the Motion event -- what I label as the "Cause" -- or to what can simply be taken as the Instrument. The central constituent type has morpheme members that prototypically refer to the kind of object or material that functions as the Figure of the Motion event. The third constituent type has morpheme members that prototypically refer to the combination of a particular Path and type of Ground object within the Motion event.

Of these three constituent types, the central one referring to the Figure ranks highest for status as verb root under the remaining factors in (1). Thus, to start with factor (1d) concerning class size, the Figure-specifying constituent type has hundreds of morpheme members -- and there is some evidence that new morphemes can be more easily added to this type, so that it has some claim to open-class status. By contrast, the Cause-specifying constituent type has only some two dozen members, while the Path+Ground-specifying constituent type has only some fifty members, both constituent types being clearly closed-class.

The Figure-specifying constituent type also ranks higher on all three phonological properties in factor (1e). The morphemes of this constituent type first average a greater length and, second, they vary more in pattern than those of the other two constituent types. Thus, the Figure-specifying morphemes range from having no vowel and consisting of from one to three consonants, to having one vowel with various numbers of consonants on either end, to having two vowels with varying numbers of consonants at either end and in the middle. But the Cause-specifying morphemes are mostly CV in shape, the only divergences being that two of the forms add a continuant consonant after the first C, and two add one after the V. And the Path+Ground-specifying morphemes are mostly VCC or CVC in shape. In addition, the Figure-specifying morphemes have virtualy no constraints on the phonemes that can occur in them. But the Cause-specifying morphemes can include stops only from the plain series, not from the glottalized or aspirated series; of the phonemically distinct dentals "r/l/n", they can morphophonemically

include only r; and they lack the phoneme "q". As for the Path+Ground-specifying morphemes, the vowel that occurs in them is preponderantly "i", and none of the three "q" stop phonemes occurs in them.

Considering for now only the first two semantic properties under factor (1f), the Figure-specifying constituent type again ranks higher than the other two constituent types. With regard to property (1f1), some of the Cause-specifying morphemes do refer to relatively ccontentful Instruments, such as the wind or buttocks. Likewise, some of the Path+Ground-specifying suffixes refer to relatively contentful Ground objects, such as liquid, a container, or someone's face/head. But the Figure-specifying morphemes include many with a still greater amount, specificity, and intricacy of content, such as one referring to a linear flexible object suspended from one end (e.g., a sock on a clothesline, a killed rabbit suspended from one's belt, a flaccid penis) or one referring to fabric that gets bunched up or unbunched in the process of moving (e.g., curtains getting opened, a sock getting put on). And, with respect to property (1f2), the Figure-specifying morphemes appear to cover a wider range of concepts, for instance (besides the previous two examples) from charcoal lumps, to anatomically contained fluid, to a water-borne canoe gliding lengthwise. True, the Cause-specifying morphemes cover natural forces, a linear object engaged in various actions, body parts, and sensory stimuli. But they basically cover only these four semantic domains and make only a few distinctions within each of them. And what the Path+Ground morphemes specify for the Ground is for the most part a geometric type of schema. Let me return now to the factor of cooccurrence patterns in (1c). The largest class of Figure-specifying morphemes must occur in the tripartite stem described at the outset -- that is, they must be directly preceded by a Cause-specifying morpheme and followed by a Path+Ground-specifying morpheme. But there is also a class of Figure-specifying morphemes that, while still requiring a Cause morpheme on the left, can occur without a path+Ground morpheme on the right. Further, there is another class of Figure-specifying morphemes that requires a Path+Ground morpheme on the right, but that refuses any Cause morpheme on the left. Thus, Figure-specifying morphemes occur across a certain range of construction types, across which the other two constituent types either do or do not occur. To round out the picture a bit, there are several additional classes of morphemes that occupy the same position class as the Figure-specifying morphemes but that do not specify the Figure. Some of these classes follow each of the three patterns of requirement or refusal just cited for different classes of Figure-specifying morphemes. In addition, one class can occur by itself -- with neither the Cause nor the Path+Ground constituent type -- unlike any of the Figure-specifying classes. By contrast, neither the Cause constituent type nor the Path+Ground constituent type can occur by itself in a verb complex. And the two of them can not occur together without a Figure-specifying constituent or one of its semantic alternatives occurring between them. The upshot of this set of cooccurrence patterns is that the constituent type that specifies the Figure (or certain semantic alternatives) is criterial to the verb complex, whereas the other two constituent types are

not.

There is one more pattern involving cooccurrence that privileges the Figure-specifying constituent type. In a special construction, a Figure-specifying morpheme of the class that otherwise requires both a Cause morpheme and a Path+Ground morpheme can be removed from the verb complex entirely, placed in front as a frozen form, and set in construction with a new generic (or light) verb that now takes all the inflections. For example, the morpheme *-qput-* that refers to 'dirt' as a Figure, and that usually occurs at the center of a tripartite stem within a verb complex referring to dirt as moving or located, can also occur before a 'be' verb in a construction that means 'for it to be dirty'. Niether of the other two constituent types can take part in such a construction. Thus, both within the verb complex and outside it, the Figure-specifying constituent type is singled out as the survivor across a range of construction types and so, by factor (1c) is once more accorded higher ranking for verb status.

In sum, there is no equipollent framing in Atsugewi. Because of its high ranking on factors (1c) through (1f), the Figure-specifying constituent type (and its semantic alternatives) should be considered to constitute the verb root. Accordingly, the Cause-specifying constituent type can now be treated as a prefix and the Path+Ground-specifying constituent type as a suffix. With appeal to the semantic property in (1f3), the Figure-specifying constituent type can now, as verb root, be considered to actuate the multi-affixal verb complex it is in (which, as the whole-word constituent on the sentence level that functions as the verb on the basis of factors (1a) and (1b) in turn actuates the sentence as a whole). It is because the Figure-specifying morphemes in Atsugewi behave like the central verb root that I cited Atsugewi as an example of a third major type within my Motion-actuating typology.

Namely, this is the type where, of the various semantic components within a Motion event, it is the Figure that characteristically appears in the main verb root along with 'fact of Motion'. (Presumably similar arguments could be made for Navajo as another example of this type). For these reasons, I have consistently glossed the Figure-specifying morphemes as verbs, not, say, simply as nominals that refer to the Figure. For example, *-qput-* is glossed as 'for dirt to move / be located'. That is, I incorporate the dynamizing semantic component of "fact of Motion" directly within the meanings of these morphemes. By the same token, I have consistently not glossed the other two constituent types as verbs. For example, I have glossed the Cause-specifying prefix *ca-* either as an adverbial clause, 'as the result of the wind blowing on the Figure' -- or simply as a prepositional phrase, 'from the wind' -- but not, say, as 'for the wind to blow'. Likewise, I have glossed the Cause prefix *ma-* basically as 'as the result of one's feet acting on the Figure' or, in an agentive sentence, as 'by acting on the Figure with one's feet', but not, say, as 'to do with the feet' or 'to act with the feet' (a kind of gloss I have seen in other works that seem to be describing something comparable to an instrumental morpheme). Comparably, I have glossed the Path+Ground-specifying suffixes as prepositional phrases. For example, *-ic't* has been glossed as 'into liquid'

-- not, say, as ‘move into liquid’. For one place that this becomes an issue, the Atsugewi morphemes for possession and change of possession belong to the exact same constituent type as the unproblematic Path+Ground suffixes and can occur in its position class with roughly the same sets of surrounding morphemes. In other ttreatments I have seen, apparently comparable morphemes are often glossed like verbs as ‘have’ or ‘give’ -- inconsistently with the glossing of other morphemes in the same constituent type. But I have glossed the relevant Atsugewi suffixes *-ahn* and *-ay* respectively as ‘in one’s possession’ and ‘into someone’s possession’ -- that is, in the same prepositional phrase mold as the other members of the same constituent type (see Talmy 2000b, ch. 4 for a more elaborate discussion of such issues). The point here is that once a particular constituent type has been identified as a verb root and other constituent types complementarily fall into place for their respective semantic-syntactic roles, then it is best to give a consistent form of glossing to the morphemes of each constituent type -- a form that corresponds to the semantics of that type. finally, then, Atsugewi can be considered to have a split system in its conferal of main verb status. The multiaffixal verb complex as a higher-level constituent type, exhibiting the first two factors of (1), acts as the main verb relative to the other major constituent types in the sentence. At the same time, the simplex constituent type within the verb complex that specifies the Figure (or its alternatives) exhibits the remaining four factors of (1), and so can be considered to function as the verb root within the verb complex, -- what might be dubbed the "main verb root".

The bound constituents within a polysynthetic verb complex was one type of case within the first application of Slobin’s proposed category of equipollent framing. But another type of case he cited is serial verb constructions. How would you account for serial verb languages then?

The bound constituents within a polysynthetic verb complex was one type of case within the first application of Slobin’s proposed category of equipollent framing. But another type of case he cited is serial verb constructions. While I am not as familiar with serial verbs as with polysynthesis, I can present some evidence counter to equipollent framing among them. First, Matisoff, in his (1973) treatment of the Tibeto-Burman language Lahu, describes a characteristic construction -- one that includes the representation of Motion events -- in which up to five verbs can be concatenated within distinct position slots. he is clear, though, that the verbs occurring in one of those position slots is the main verb, the "head", while the others -- what he terms "versatile verbs" -- are semantically subordinate to the head verb and occupy pre-head and post-head position slots. If in the future I write an expanded version of this interview as a separate article, I will cite the bases on which Matisoff concluded that the Lahu construction lacks equipollence, and will relate them to the factors in (1). For now, though, I will let his description stand as one counterexample to equipollent framing in a serial verb language.

What about other serial-verb languages such as Mandarin? Do you think they behave like Lahu?

I turn now to Mandarin, another language with a serial verb construction that can represent a Motion event as well as its semantic generalizations. Here, typically, the verb in the first position of the series, what can be designated as V1, represents the Co-event -- either Manner or Cause; the verb in the second position, or V2, represents the Conformation component of Path; and a third verb or V3 can be present representing the Deixis component of Path. The verbs that can occur in each of the three positions of the series generally belong to different sets. The procedure I propose is to compare the verbs in each such set -- when in fact used in one position of the serial construction -- with the same verbs when used as the sole verb in a sentence without a serial construction -- what I will designate as V0. To help in this comparison, I propose the principle in (2), which can be used in conjunction with the factors in (1) to suggest different degrees of main verb status.

(2) constituent-type overlap
If a language has two syntactically distinguishable constituent types
that share some but not all of their morpheme members, then:
a. the degree of their divergence as distinct constituent types
correlates with:
1. the proportion of non-overlap of their respective morpheme memberships
and -- for morphemes within the overlap --
2. the proportion of morphemes whose meanings differ in the two constituent types
and
3. the degree of such differences in meaning.
b. a morpheme occurring in both constituent types with basically the same meaning
can seem to belong to a meta-category spanning both constituent types
or to belong to one category type even when functioning syntactically in the other type
-- more so than can a morpheme outside the overlap
or a morpheme having distinct meanings within the overlap

This principle can be initially checked out in English. As a backdrop, first note that there is virtually complete overlap between some pairs of syntactically distinguishable constituent types, such as the nouns that can occur in subject NPs and the nouns that can occur in object NPs; and there is a complete disjunction between other pairs, such as between determiners and auxiliaries. But now consider two other syntactically distinguishable constituent types: prepositions, which are in construction with a nominal, and satellites, which are in construction with

the verb. With respect to property (2a1), there is much overlap in the morphemic memberships of these two constituent types, but at the same time each type has morphemes not occurring in the other. Thus, *away, back, ahead, forth, apart,* and *together* function only as satellites, while *of, from, at, towards, beside, among,* and (in standard English) *with* function only as prepositions. With respect to property (2a2), among the morphemes serving for both constituent types, many have similar senses in both usages -- like *in* as a preposition in She's in the room and as a satellite in *She hurried in* -- but other morphemes have distinct senses. Thus, *over* as a satellite includes the sense 'rotationally about a horizontal axis' as in *The pole fell over,* but this sense is absent in the prepositional usage of the form. With respect to property (2a3), the semantic divergence between prepositional and satellite usages in such cases seem in general not to be very great. For example, the satellite senses and the prepositional senses of *over* can be fairly readily linked (see Brugmann, 1981). The two constituent types, therefore, can be judged to be neither identical nor unrelated, but rather partially overlapping and hence moderately distinct. Finally, with respect to property (2b), to a speaker with some syntactic sensitivity, a form like *in* with its comparable meaning in both usages might seem to belong to some meta-preposition/satellite category, or might seem, for example, to be a preposition even when functioning as a satellite as in *She hurried in*. But forms like *apart* and *of* would unambiguously seem to be respectively a satellite and a preposition, while a form like *over* with its diverging senses might be starting to seem like having a foot in two different categories. Other types of partial overlap can be found across languages. For example, one other type seems to hold in at least some noun-incorporating languages, such as Caddo, between their independent nouns, as one constituent type, and their incorporated nouns, as a second constituent type.

Returning to Mandarin, first of all, there might be some evidence that V1 ranks higher than V2 for main verb status on the basis of factors (1b, c, d, and f) -- that is, on the basis of certain forms of syntactic, coocurrence, class size, and semantic behavior. I will try to cite such evidence in any expanded version of this interview. But for now, let me just appeal to principle (2) to show how it might function. In broad strokes, the basic observation is that a root in the second position of a series is generally felt to be a verb if it functions like a prototypical verb elsewhere, but is otherwise felt to be a satellite. What follows is the finer-grained analysis. With respect to property (2a1), it looks like there might be a greater overlap in morphemic membership between the V1 and V0 constituent types than between the V2 and V0 constituent types. If so, the class of first-position verbs may be more of a piece with the class of solo verbs, while the class of second-position verbs would show more divergence from the class of solo verbs. Moreover, in terms of property (2a2) across the overlapping portions of morpheme memberships, the morphemes that can function both as V1 and V0 seem to have basically the same meanings across both usages, whereas a number of the morphemes that can function both as V2 and as V0 have divergent meanings across the two usages.

The V2/V0 overlap can be illustrated with morphemes first that do and then that do not have the same semantic content across the two usages. The form *jin2* refers to 'motion into' both as a V2, as in (3a), and as a V0, as in (3b).

(1) a. Ta1 zou3 jin4 le gong1-yuan2. she/he walk enter PERF park
"She/He walked into the park."
b. Ta1 jin4 le gong1-yuan2. she/he enter PERF park
"She/He entered the park."

If now *jin2* is replaced by *guo4*, the sentence corresponding to (3a) can translate as "She/He walked past/across the park", where the new form in its V2 usage represents a farily common path concept. But when *guo4* appears as the V0 in a sentence corresponding to (3b), the sentence does not correlatively mean "She/He passed/crossed the park". Rather, it indicates that the subject's movement was one within a succession of such movements being observed from some distance (as by a spy) and, further, that the actual path options are now limited to 'pass', with 'cross' excluded. Thus, *guo4* as a V2 functions semantically as one of a familiar series of Path specifiers, whereas it has certain semantic idiosyncracies as a V0: a case of semantic divergence.

Talmy (2000b, ch. 3) argues that where a language characteristically represents Path, it usually also represents certain other semantic categories, including aspect. The V2 slot may prove to be the characteristic Path-specifying locus of Mandarin but, in any case, it seems sure to be the characteristic locus for aspect-specifying verbs. However, in terms of property (2a3), the morphemes that express aspect in their V2 usage largely express quite divergent meanings in their V0 usage. Thus, both *hao3* and *wan2* express the aspectual concept 'to completion' in their V2 usage. But as a V0, *hao3* means 'be good', while *wan2* means something like 'be all for nothing / be done for'.

Finally, in terms of property (3b), a native Mandarin speaker's sense of the syntactic status of an individual V2 form seems directly affected by that form's V0 usage. If the form has just about the same meaning in both usages, he thinks of the V2 form as having a relatively prominent role, roughly coequal with that of the V1. But if the two usages are different, he thinks of the V2 form as having a more subordinate role relative to the V1. On this issue, I have most recently consulted with Lian-Cheng Chief, a student of mine and a native speaker of Mandarin. His feeling about the V1 and V2 in sentence (3a) is that he cannot tell which of them is functioning as a main verb. This, then, is the first instance of what might be genuinely equipollent framing in my discussion so far. But in the counterpart sentence that contains *guo4* instead of *jin2*, his feeling is that the V1, *zou3* is definitely the main verb, while the V2 *guo4* is subordinate. And he certainly feels that the V1 is the main verb when the V2 is one of the aspect-specifying verbs.

In sum, principle (2) here acts in conjunction with the factors in (1). In Mandarin, the V0 constituent type is the unimpeachable model for main verb status on

the basis of (1) while, on the basis of (2), other syntactically distinguishable constituent types share in that status to the degree that they are equivalent to the V0 type in membership and meaning. Different degrees of main verb status can accrue not only to the whole of another constituent type, but also to individual morphemes belonging to it. The situation in Mandarin at present seems to be that, in a serial verb construction representing Motion or one of its semantic extensions, the V1 constituent type clearly has main verb status, while the V2 constituent type is in the process of diverging toward a subordinate status as a satellite to the main verb. And within individual serial constructions, the V1 is always felt to be a main verb, while the V2 is felt in some cases also to be a main verb -- thus manifesting true equipollent framing -- but in other cases to be a subordinate element.

Ok, that was about the first application of Slobin's proposal, but you said that his equipollent framing had two main applications. What are your thoughts on the second one, that is, the equipollent framing for languages such as Jaminjung?

I had earlier suggested that Slobin's proposal of equipollent framing had two main applications. In the first application, the two constituent types that represent the Figure and Co-event (Manner) together are seen as having something like main verb status, and two forms of this were looked at: in a polysynthetic construction and in a serial verb construction. For the second application, I now turn to Jaminjung, a language in which main verb status is seen to belong to a third constituent type. Before considering the matter of framing, we can apply the factors of (1) for main verb status to the language. Though my knowledge of it is still quite limited, Jamunjung seems to represent another kind of split system. A certain constituent type in the language takes the kinds of inflections outlined in factor (1a); may exhibit some of the syntactic privileges of factor (1b), though I am not sure of this; and apparently is the criterial constituent type in a sentence, having to be present while other constituent types need not be, in accord with the cooccurrence properties of factor (1c). On these bases, this constituent type is generally seen as the main verb, and I will here refer to it as such. However, with respect to factor (1d), this constituent type is closed-class, with rather few morphemes as members. And with respect to the first two semantic properties of factor (1f), the meanings of the morphemes in this constituent type seem to be rather generic and to remain within rather stereotyped semantic limits. On the other hand, there is another constituent type -- or perhaps a family of related constituent types -- often occurring in construction with the first type, that is open-class with many member morphemes, morphemes that have a wide range of rather specific meanings. Perhaps because this other constituent type exhibits at least two of the factors for main verb status (the phonological properties of factor (1e) still need assessment), the term "coverbb" has been applied to it.

Now, with regard to framing, Slobin has focused on two groups of coverbs, one expressing Manner and another Path. But I might note here that the path coverbs

apparently tend to express the geometriclly more intricate Conformation part of the Path component. On the other hand, it is the main verb that expresses the Deictic part of the path component or, more generally, to express unbounded extended paths, the type that are covered under the "ALONG" case of the "Motion-aspect formulas" that I propose as universal (see Talmy 2000a, ch. 3). Thus, the main verb constituent type includes morphemes with such meanings as: ‘go’, ‘come’, ‘take’, ‘bring’, ‘procede away from’, ‘procede toward’, and ‘follow along after’. On the face of it, within my Motion-framing typology, jaminjung would apear to belong to the verb-framed type. True, not many Path distinctions are marked within the main verb. But such a pattern was already proposed and exemplified under my Motion-actuating typology as "Motion plus a minimally differentiated semantic component", and can as readily be applied here. Any accompanying Path coverb would then provide additional Path specifications as part of a fuller distributed Path representation.

The whole pattern seems rather comparable to that seen in Japanese or Korean. In those languages, Motion sentences often have a deictic ‘come’/‘go’ verb root as main verb, accompanied by verb roots in a gerundive or bound form that express Manner and/or the Conformation part of Path. The main difference is that in Japanese and Korean the Conformation-specifying roots (and, for that matter, the Manner-specifying roots) can also occur as main verbs, whereas in Jaminjong they cannot. If this interpretation holds, then the possibility of equipollent framing for jaminjong simply disappears: this is a verb-framed language. It is true that, below this main typological ascription, one could pursue the question of whether an equipollent pattern or a dominant-versus-subordinate pattern holds across two types of non-main-verb constituents, one type expressing Manner and the other expressing Path Conformation. And this question could be pursued equally for Jaminjung, Japanese, and Korean. But that would involve a further layer of phenomena, one not included under the original framing typology.

Question 5 *Sometimes the _expression of these semantic components is not limited or restricted to the verb or satellites. Languages have other morphosyntactic means --for example, sound symbolic expressions -- to express as much information as those languages do. Some other times, what happens is that the information is not just localised on one single element in the sentence but "distributed" across several ones (Sinha and Kuteva, 1995). How would you account for these situations in your theory?*

You raise two issues here, the one involving sound-symbolic expressions and the one involving distributedness, which I will address in reverse order.

With respect to the second issue in your question, Sinha and Kuteva (1995) -- rather than presenting a challenge or emendation -- for the most part simply focus on something that was part of my theoretical framework from the outset. Namely, this is the understanding that Path can be, and often is, represented distributedly over a combination of constituents. For example, for languages like

English, I described the Path as being expressed by the satellite AND/OR preposition. I later dubbed languages like English as "satellite-framed", but made it clear that this short-hand term still referred to the potential combination of satellite and/or preposition. To expand on my use of these terms themselves, "satellite" referred to any constituent other than a full noun phrase or prepositional phrase that is in construction with the verb root (or whole verb, depending on the construction). As a further form of distributedness, it was seen that a number of satellites can cooccur in a sentence, each representing a different component of a total Path complex. Thus, three different Path components are represented by the three satellites shown in boldface in my original example sentence: *Come right* **back down out** *from up in there*. I would now analyze such a sequence as a "satellite complex" or a "satellite phrase", since it has internal cooccurrence and sequencing properties. A new example sentence representing five Path components in five satellites (again in bold) is: *The bat flew* **way on back up in***to its niche in the cavern ceiling*.

I used the term "preposition" -- a type of constituent in construction with a noun phrase (or noun stem, depending on the construction) -- to cover forms whether preposed or postposed to the nominal, and whether free as an adposition or bound as an inflection or clitic.

Distributedness shows up here too in that any combination of these possibilities can cooccur. Further, any of these possibilities can itself comprise a complex of forms, like the English *in front of*. And still further, like satellites, several instances of any of these possibilities can coocur, as in English *(Get out) from behind (the TV)*, or indeed *(Get out) from in front of (the TV)*. I devised a symbolism to show the full (distributed) representation for any given Path concept. This symbolism included a left-pointing arrow (here, a "<" sign) to mark a satellite, a greater-than sign to mark a "preposition", together with hyphens and other markers to indicate whether a form was bound or free, preposed or postposed. Thus, the path of a Figure object that moves from the inside to the outside of a surround is represented in English by the _expression in (4a), and in Russian by the _expression in (4b).

(4) a. F ... <out (of> G) b. F ... <vy- (iz + -GEN> G) For their part, verb-framed languages often represent Path through the combination of a main verb and a preposition. For example, the Spanish counterpart of the preceding path is represented by the complex in (5)

(5) F ... salir (de> G) With the refinements in the analysis of the Path component introduced in Talmy (2000b) -- which treats the Path as a complex comprising three components: Vector, Conformation, and Deixis -- I would now say that in, say, Spanish the preposition represents soely the "Vector" component of the Path, while the verb root typically represents the Vector and Conformation components of the Path. Then, showing a further form of Path distributedness, languages like Japanese and Korean commonly represent separately the Deixis component of the

Path complex in a deictic "come/go" verb, the Vector and Conformation components in a path verb, and the Vector alone in a postposition. I had described a further form of Path distributedness in what I termed a "complex Ground" -- seen for example, in Talmy (2000a) chapter 5 "Figure and Ground in Language" in section 5.2 titled "Complex Ground in a complex constituent". A complex Ground covers cases of motion with a single unbroken path that nevertheless can only be represented by a succession of prepositional phrases, as in *The crate fell out of the plane, through the air, into the ocean*. But it also covers unbroken paths that can be represented either by a succession of PPs or by just one PP. An example is *I swam from one side of the river to the other in one minute*, as against *I swam across the river in one minute*. Sinha and Kuteva 1995) describe further types of spatial distributedness, for example, in noting that one needs to know the initial noun in such phrases as *a crack in the bowl* and *fruit in the bowl* to know which type of 'in' geometry is present. I agree, but this is a general linguistic phenomenon not limited to space. Thus, one needs to know the object noun in phrases like *cut the grass* and *cut the steak* to know which type of 'cutting' action and instrument is present. This is the general linguistic function of context to help in selecting among polysemous senses and in tailoring a generic schema to a particular instance.

It should be noted that spatial information about a particular scene can of course be distributedly built up through a range of constituent types both within and across clauses. An example within a clause is: *The acrobat walked along the tightrope high above the ground between two trapeze artists in the circus tent on the west side of town*. Such distributed representation, again, is not limited to space, but can occur for almost any category of information. But the forms of distributed spatial representation I have described in my work and above here are the ones that are characteristic of a language in its _expression of the Path component in a Motion event. Thus, in a satellite-framed language, the most characteristic form is (the potentially full expansion of) the satellite and/or preposition most closely associated with the main verb.

Beginning now my response to the issue your raised about sound-symbolic expressions, the buildup to it follows naturally from the preceding discussion. So far, I have discussed here distributed representation only of the Path component of a Motion event. But many of the same observations hold for other components within a main or extended Motion event, such as the co-event, in particular when it constitutes the Manner of the main Motion event. As just illustrated for spatial information, Manner can also be represented by a range of constituent types within or across clauses. This is seen in an example like: *The nymph in the myth lightly darted lickety-split across the meadow on tiptoes, skating over the surface*. Here, different aspects of the Manner in which the nymph moved are represented in an adverb (lightly), the main verb (darted), a sound-symbolic or "mimetic" form (lickety-split), a prepositional phrase (on tiptoes), and in a gerund clause (skating over the surface).

But apart from such broad-spectrum forms of representing Manner in general, one can, as with Path, determine the constituent types that are most characteristic of a language in its representation of the Manner component of an extended Motion event. In my original work, I had observed that Manner is most characteristically represented in the verb root of a (satellite-framed) language like English, in a gerundive constituent in a (verb-framed) language like Spanish, and in a prefix to the verb root in a (verb-framed) language like Nez Perce.(The *-i* suffixed V1 forms of the so-called verb compounds of Japanese seem to behave roughly like the Nez Perce Manner prefixes.) Due to more recent work on Japanese, for example, by my students Yukiko Sugiyama (in press), and Kiyoko Toratani (in press), as well as your own work on Basque (Ibarretxe-Anunano, 2004), I would now add sound-symbolic or mimetic forms to this list as a further type of constituent that can characteristically represent Manner in a language. So far, this sound-symbolic Manner-specifying constituent type seems to occur extensively only in verb-framed languages. In such languages, further, this constituent type seems not to be the sole (or perhaps even principal) locus for representing manner, but rather to be additional (and perhaps ancillary) to that of another constituent ttype: the more familiar type consisting of the gerundive or other nonfinite form of a verb root.

Accordingly, in a sentence containing both of these constituent types, Manner is represented distributednhly. As with the "broad-spectrum" English example above, perhaps such languages can use still further constituent types in a sentence to distributively represent additional aspects of Manner. But probably the two cited constituent types -- the nonfinite verb type and the sound-symbolic type -- together as a pair serve for the characteristic representation of Manner in such languages. In sum, the fact that a class of sound-symbolic forms can characteristically (co-)represent Manner in a sentence expressing a Motion event is not a challenge to the basic Motion typology framework, but a natural addition to the constituent types already known to represent Manner.

Once added, though, such sound-symbolic forms invite further observations. For one, they do seem as a class to represent only Manner in a Motion-event sentence, rather than, say, a component like Path. I know from your cataloging of Basque sound-symbolic semantics that you include other components than Manner, for example, Ground, among the referents that such forms can have. But I would like to argue that the semantic category expressed by the majority of forms in a formal category largely determines how speakers will cognize *all* the forms of that formal category. Thus, paralleling your Basque example of a Ground-expressing mimetic, English too has Motion verbs that include other components than prototypical Manner in their meanings. Prototypical Manner is a motion-affecting activity that the Figure exhibits concurrently with its translational path. But the verb in *The rock splashed into the water* seems in part to represent an activity concurrently exhibited by the Ground, the water. And the semantics of the Motion verb in the verb phrase *wafted to the ground*, includes something about the kind of Figure present, namely, an object physically like a leaf. Nevertheless, most English speakers would probably process such verbs as basically

expressing Manner -- that is, expressing the semantic category characteristic of the class.

This point can be made clearer through a contrast. The exact same referent is probably interpreted in different ways by speakers of languages that include that referent in semantic classes with different semantic majorities. Thus, the verb root *flow* in English and the verb root *cu-* in Atsugewi both refer to liquid moving plastically in a concerted direction. That is, both represent something about the character of the Figure and that of the manner. My surmise, though, is that English speakers would interpret *flow* as a Manner verb like the majority of its category, whereas Atsugewi speakers would interpret *cu-* as a Figure verb -- that is, a verb root referring to a particular type of Figure as moving (or located) -- like the majority of *its* category. The upshot here, then, is that sound-symbolic expressions as a class should probably be considered to represent Manner -- or at least a particular type of Manner or a semantic category akin to Manner -- when occurring in a Motion sentence in languages like Japanese and Basque, regardless of whatever indications of other components they may make.

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