DOCUMENT RESUME

ED 104 125 FL 006 320

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TITLE The Basis for a Crosslinguistic Typology of Motion/Location, Part 2. Working Papers on Language Universals, No. 11.
INSTITUTION Stanford Univ., Calif. Committee on Linguistics.
PUB DATE Apr 73
NOTE 63p.; For related documents, see ED 096 825

EDRS PRICE MF-$0.76 HC-$3.32 PLUS POSTAGE
DESCRIPTORS Deep Structure; English; Language Patterns; *Language Typology; *Language Universals; *Linguistic Theory; Russian; *Semantics; Spanish; Surface Structure; *Syntax; Yiddish

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Working Papers on Language Universals
No. 11, April 1973
pp. 23-83

THE BASIS FOR A CROSSLINGUISTIC TYPOLOGY OF MOTION/LOCATION

Part II

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ABSTRACT

An analytic sketch of motion/location in more primitive spatio-temporal terms is presented. The earlier account (in WPLU No. 9) — showing various languages' most characteristic pattern for deriving a putatively-universal underlying representation of motion and location — is continued: the ENGLISH pattern is characterized further (amplified by data from the analogous RUSSIAN and YIDDISH), and the distinct SPANISH pattern is presented and contrasted. A typology of languages based on their most characteristic pattern of motion/location derivation concludes the discussion.

Introduction

The present discussion and an earlier one which appeared in WPLU No. 9 are excerpts from the author's dissertation.* Together they present a putatively-universal deep-semantic and -syntactic representation of motion/location, and show the three distinct patterns for deriving this representation which are characteristic of ENGLISH, ATSUGEWI, and SPANISH (amplified by data from RUSSIAN and YIDDISH), act against each other to form the basis for a crosslinguistic typology.

* Semantic structures in English and Atsugewi, doctoral dissertation, University of California at Berkeley, Winter 1972. (Available from the author, Linguistic Department, University of California, Berkeley, California 94720 for $6.95).

1. Motion/Location and Spatial Structures

The formulation given in (1) of Part I was only a rough characterization of the translatory situation's much finer spatio-temporal nature. At the core of the translatory situation is a putatively-universal system of abstract *motion/location* subsituations. A few of these are shown specified -- still quite roughly -- by the underlying *motion/location structures* in (1). In these structures appear the following 'topological' bathic nouns with the specifications shown:

$POINT_{S,T}$ specifies an (unextended) point of space, time

•

$_{E}POINT_{S,T}$ specifies an extended point of space, time

—•—

$EXTENT_{S,T}$ specifies an (unbounded) extent of space, time

...———...

$_{B}EXTENT_{S,T}$ specifies a bounded extent of space, time

———•———

(1)

(a) a $POINT_S$ BE_L AT a $POINT_S$

(b) a $POINT_S$ MOVE TO a $POINT_S$ (at a $POINT_T$)

(c) a $POINT_S$ MOVE FROM a $POINT_S$ (at a $POINT_T$)

(d) a $POINT_S$ MOVE POR* a $_EPOINT_S$ (at a $POINT_T$)

(e) a $POINT_S$ MOVE ALONG an $EXTENT_S$ (for an $_BEXTENT_T$)

(f) a $POINT_S$ MOVE ALENGTH an $_BEXTENT_S$ (in an $_BEXTENT_T$)

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* The DIRECTIONAL notion intended here would normally be expressed in English by *through*, as in 'for a point to move through a point'. For distinctness, however, the Spanish preposition *por* has been selected to represent the bathic morpheme.

In any particular language these universal structures take as relative clause formations on their right-hand nominal constituent a set of particular *spatial structures* (some aspects of which may also be universal). E.g., one such spatial structure for English is, highly simplified,

(2) a $POINT_S$ IS OF the INSIDE OF a SPHERE,

where *the INSIDE* specifies 'the space which is inside' and *SPHERE* is taken, again in a more topological sense, to specify any 'wholly or mostly closed surface'.

In a complex structure consisting of a motion/location structure and a spatial structure, the expressions for particular FIGURE and GROUND objects appear concurrently with the first and last constituents, as e.g., in:

(3) a $POINT_S$ IS_L AT a $POINT_S$ which IS OF THE INSIDE OF a SPHERE
the ball the box

(which ultimately yields: the ball is in the box). The particular FIGURE and GROUND objects specified in such a complex structure can be appropriate only if they are capable of idealization as the topological objects concurrently specified. Thus, (3) can specify a semantically well-formed situation only if 'the ball' is topologically idealizable as 'a point of space', and 'the box' as 'a wholly or mostly closed surface'.*

---

*Note that a single physical object can be idealized into several different topological objects. Thus, a particular box is idealized as a closed surface in the situation specified by

the ball is in the box,

but it is idealized as a point of space in the situation specified by

the box is 20 feet away from the wall.

Thus, it has been seen that the simple 'DIRECTIONAL expression' as treated in the body of this paper actually arises from a complex

construction: in particular, from the last portion of a motion/location structure together with the first portion of a spatial structure. We now take six such constructions -- built from the last portions of (1 a, b, and c) together with the first portions of two different spatial structures -- and sketch the derivations leading from these to the corresponding surface DIRECTIONAL expressions of English. The last portion of the spatial structures, i.e., the bathic topological noun, is shown only in brackets and is assumed not to participate directly in the derivation:

(4)

(A)	For (1 a):	For (1 b):	For (1 c):
(a)	AT a $POINT_S$ which IS OF the INSIDE OF [a SPHERE]	TO a $POINT_S$ which IS OF the INSIDE OF [a SPHERE]	FROM a $POINT_S$ which IS OF the INSIDE OF [a SPHERE]
(b)	AT a $POINT_S$ OF the INSIDE OF	TO a $POINT_S$ OF the INSIDE OF	FROM a $POINT_S$ OF the INSIDE OF
(c)	AT a $POINT_S$ IN	TO a $POINT_S$ IN	FROM a $POINT_S$ IN
(d)	AT IN	TO IN	FROM IN
(e)			FROM OUT
(f)	IN AT	IN TO	OUT FROM
(g)	in	in(to)	out-of*

(B)			
(a)	AT a $POINT_S$ which IS OF the SURFACE OF [a PLANE]	TO a $POINT_S$ which IS OF the SURFACE OF [a PLANE]	FROM a $POINT_S$ which IS OF the SURFACE OF [a PLANE]
(b)	AT a $POINT_S$ OF the SURFACE OF	TO a $POINT_S$ OF the SURFACE OF	FROM a $POINT_S$ OF the SURFACE OF
(c)	AT a $POINT_S$ ON	TO a $POINT_S$ ON	FROM a $POINT_S$ ON
(d)	AT ON	TO ON	FROM ON
(e)			FROM OFF
(f)	ON AT	ON TO	OFF FROM
(g)	on	on(to)	off(-of)

---

*In standard English, *into*, *onto*, and *off-of* can appear without the second element, but *out-of* cannot. At least in some black speech, however, this *can* happen: 'he fell out the bed'.

It may be noted that the derivations in (4) apply equally well to Russian through the '(f)' forms. In deriving further to the surface '(g)' forms, the bathic morphemes *IN*, *OUT*, *ON*, and *OFF* key in the appropriate Russian prepositions, while the bathic morphemes *AT*, *TO*, and *FROM* key in case markers for the governed noun:

(5)

(f)	IN AT	IN TO	OUT FROM
(g)	v + - prepositional	v + - accusative	iz + - genitive
(f)	ON AT	ON TO	OFF FROM
(g)	na + - prepositional	na + - accusative	s + - genitive

We now exemplify the motion/location structures of (1 d, e, and f) in (6), (7), and (8). In each case, the motion/location structure's prepositional and right-hand nominal are shown in construction with several different spatial structures. For each such construction, a derivational sketch, a pictorial diagram, and illustrative sentences are given. The high degree of incompleteness, simplification, and imprecision in this merely suggestive presentation cannot be over-emphasized.

(6)

(a) POR a $_{E}$POINT$_{S}$ which IS$_{L}$ TO-ONE-SIDE-OF [a POINT]

POR TO-ONE-SIDE-OF [a POINT]

past [a POINT]

the ball sailed past his head (at exactly 3o'clock)

(b) POR a $_{E}$POINT$_{S}$ which IS$_{L}$ ON and PERPENDICULAR-TO [a LINE]

POR ON [a LINE]

across [a LINE]

the ball rolled across the border (at exactly 3o'clock)

(c) POR a $_{E}$POINT$_{S}$ which IS$_{L}$ IN and PERPENDICULAR-TO [a PLANE]

POR IN [a PLANE]

through [a PLANE]

the ball sailed through the windowpane (at exactly 3 o'clock)

(d) POR a $_{E}$POINT$_{S}$ which IS$_{L}$ INSIDE and PERPENDICULAR-TO [a CIRCLE]
POR INSIDE [a CIRCLE]
through [a CIRCLE]

the ball sailed through the hoop/the arch (at exactly 3 o'clock)

(7) [Here and in (8), wherever *UP* and *up* appear, *DOWN* and *down* are equally appropriate]

(a) ALONG an EXTENT$_S$ which IS$_L$ TO-ONE-SIDE-OF and PARALLEL-TO [a LINE]

ALONG TO-ONE-SIDE-OF [a LINE]

along(side) [a LINE]

he walked along(side) the row of houses (for 5 minutes).

(b) 1. ALONG an EXTENT$_S$ which IS$_L$ ON and PARALLEL-TO [a LINE]

ALONG ON [a LINE]

along (on) [a LINE]

2. ALONG an EXTENT$_S$ which IS VERTICAL and ...

UP ALONG ON [a LINE]

up (along) [a LINE]

1. he walked along (on) the path (for 20 minutes).

2. he walked up (along) the ladder (for 10 seconds).

(c) 1. ALONG an $EXTENT_S$ which IS_L INSIDE and PARALLEL-TO [a CYLINDER]

ALONG INSIDE [a CYLINDER]

{along inside / (along) through} [a CYLINDER]

2. ALONG an $EXTENT_S$ which IS VERTICAL and ...

UP ALONG INSIDE [a CYLINDER]

{up inside / up (through)} [a CYLINDER]

1. he walked {along inside / (along) through} the tunnel (for 20 minutes).

2. he crawled {up inside / up (through)} the chimney (for 2 minutes).

(d) ALONG an $EXTENT_S$ which IS_L TO-ONE-SIDE-OF [a POINT]

ALONG TO-ONE-SIDE-OF [a POINT]

around [a POINT]

 or 

he ran around the house (for 20 seconds).

he ran around the house (for 2 hours).

(8)

(a) 1. ALENGTH an $_{B}$EXTENT$_{S}$ which IS$_{L}$ ON,
PARALLEL-TO, and COTERMINOUS-WITH [a BOUNDED LINE]

ALENGTH ON [a BOUNDED LINE]

--- [a BOUNDED LINE]

2. ALENGTH an $_{B}$EXTENT$_{S}$ which IS VERTICAL and ...

UP ALENGTH ON [a BOUNDED LINE]

up [a BOUNDED LINE]

1. *he walked --- the pier (in 5 minutes)

[a different construction, one with a direct object and no preposition, must be resorted to here:

he walked (the length of) the pier (in 5 minutes)]

2. he walked up the ladder (in 20 seconds).

(b) 1. ALENGTH an $_{B}$EXTENT$_{S}$ which IS$_{L}$ INSIDE,
PARALLEL-TO, and COTERMINOUS-WITH [a BOUNDED CYLINDER]

ALENGTH INSIDE [a BOUNDED CYLINDER]

through [a BOUNDED CYLINDER]

2. ALENGTH an $_{B}$EXTENT$_{S}$ which IS VERTICAL and ...

UP ALENGTH INSIDE [a BOUNDED CYLINDER]

up [a BOUNDED CYLINDER]

1. he walked through the tunnel (in 30 minutes).
2. he crawled up the chimney (in 3 minutes).

(c) 1. ALENGTH an $_{B}$EXTENT$_{S}$ which IS$_{L}$ ON
and COTERMINOUS-WITH [a BOUNDED PLANE]

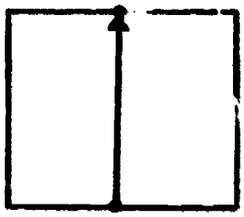
ALENGTH ON [a BOUNDED PLANE]

across [a BOUNDED PLANE]

2. ALENGTH an $_{B}$EXTENT$_{S}$ which IS VERTICAL and ...

UP ALENGTH ON [a BOUNDED PLANE]

up [a BOUNDED PLANE]



1. he walked across the field (in 5 minutes).
   the fly walked across the wall (in 1 minute).
2. the fly walked up the wall (in 30 seconds).

(d) ALENGTH an $_{B}$EXTENT$_{S}$ which IS$_{L}$ TO-ONE-SIDE-OF [a POINT]
and COTERMINOUS-WITH ITSELF

ALENGTH TO-ONE-SIDE-OF [a POINT]

around [a POINT]

he ran around the house (in 40 seconds).

In the final line of the derivations in (7 b2 and c2) it was indicated that the expression

'up along [a LINE]' can reduce to 'up [a LINE]'

and the expression

'up through [a CYLINDER]' can reduce to 'up [a CYLINDER]',

rendering possible such sentences as

'he walked up the ladder (for 10 seconds)'

and 'he crawled up the chimney (for 2 minutes)'.

A similar kind of reduction is now shown in (9) for several other English expressions.

(9)

(a) 1. in(to [a SPHERE]) through [a CIRCLE] ⟶
in [a CIRCLE]

2. out(-of [a SPHERE]) through [a CIRCLE] ⟶
out [a CIRCLE]

1. he crawled in the window (*... into the window).
2. he ran out the door (*... out of the door).

(b) around ([a POINT]) along on [a LINE] ⟶
around [a LINE]

he ran around the track (for 20 seconds/for 2 hours).

(c) across ([a BOUNDED PLANE]) ALENGTH ON [a BOUNDED LINE] ⟶
across [a BOUNDED LINE]

he walked across the bridge (in 3 minutes).

2. The D Satellite

As first brought up in the Introduction, a constituent from elsewhere in a structure can move into adjunction as a 'satellite' of - or, can *assatellate to* - the verb, the whole constituting the 'verb complex'. This last was exemplified for English by the expressions in (10), now shown with the symbol ' ‹ ' to mark the satellite:

(10)

fire ‹mis- → misfire

start ‹over → start over

Counting the satellite which joins with the verb to key in an insertion, English can have up to five ordered satellites in a verb complex, as in the sentence in (11) [which a parent might say to a child in a treehouse]:

(11)

(a) '[(')GO ‹HITHER ‹'right ‹'back ‹'down ‹'out] ,[from up in there]
come

(b) come ríght bácк dówn óut from up in there

Within a verb complex, as indicated in the first portion of (11a), all the constituents - except optionally (and sometimes obligatorily) the first - receive primary stress. Furthermore, within a sentence, such as that in (11a), which contains both a verb complex and a (DG)

prepositional phrase with a pronominal head, the verb complex as a whole receives primary stress and the prepositional phrase as a whole receives secondary stress. By the cyclic operation of stressing rules, the result at the surface, as indicated in (11b), is a sentence with a crescendoingly heavy-stressed verb complex and a low-stressed prepositional phrase.

Now, one of the most characteristic processes in Indo-European languages is for a copy of part of the DIRECTIONAL expression in a partly-derived translatory structure to assatellate to the MOTIVE verb, giving rise to what may be termed the *DIRECTIONAL* or *D satellite*. Familiar D satellites are, for example, certain instances of the 'verb particle' in English, of the 'separable' or 'inseparable verb prefix' in German, and of the verb prefix in Russian and Latin. This process and some of its further derivational ramifications in English are now sketched in (12) for the DIRECTIONAL expression *POR TO-ONE-SIDE-OF* . Here, this expression is followed by the symbol ' ⟩ ', in effect 'pointing' to the GROUND nominal together with which the expression constitutes the DG phrase. Throughout the Appendix, this symbol is placed after every prepositional governing a nominal. We also introduce now a term which, for reasons of greater explicitness, was not used in Part I. *Conflation* will refer loosely to any syntactic process - whether a long derivation involving many deletions and insertions, or just a single lexical-insertion - whereby a more complex construction turns into a simpler one. Thus, the complex construction *TO a POINT which IS OF the*

SURFACE OF, as shown derived in (4b), will be said to conflate into *onto*; likewise, the adjunction of *HITHER* with *GO*, which is shown in (11a) keying in the insertion of *come*, can now be said to conflate into *come*.

(12)

(a) [a POINT] MOVE <u>POR TO-ONE-SIDE-OF</u> [a POINT]
past

→ [a POINT] MOVE past [a POINT]

[he drove past it]

(b) → [a POINT] MOVE <<u>POR TO-ONE-SIDE</u> <u>POR TO-ONE-SIDE-OF</u>> [a POINT]
by past

→ [a POINT] MOVE <by past> [a POINT]

[he drove by past it]

(b') → [a POINT] MOVE <by

[he saw us on the corner,
but he just drove by (i.e., past us)]

(c) ⟶ [a POINT] MOVE ⟨by past⟩ [a POINT]

⟶ [a POINT] MOVE ⟨by⟩ [a POINT]
⟨past⟩

[he drove by it]
[he drove past it]

(d) [an alternate route from (b)]

⟶ [a POINT] MOVE ⟨by past⟩ [a POINT]
∅

⟶ [a POINT] MOVE ⟨by ⟩ [a POINT]

[*he drove it by]

(13) Comments on the Derivation in (12):

-- The deep structures shown in this derivation are autic and contain *MOVE*; the example sentences, however, are self-effective structures, based on the autic ones, and contain *GO*.

-- In all the example sentences, this *GO* verb has conflated with a MANNER expression from outside the structure (this is not shown) to yield the surface verb *drive*.

1. -- In (12a), there is no assatellation from the DIRECTIONAL expression, so that in the bracketed surface sentence *drove* constitutes the whole of the verb complex (shown with the heavy stress appropriate thereto) and *past it* is the DG prepositional phrase (shown appropriately unstressed).

2. -- In (12b), a copy of most of the DIRECTIONAL expression has assatellated to the MOTIVE verb where it keys in the insertion of the vadic 'particle' *by*. In the bracketed surface sentence, *drove by* now constitutes the verb complex, within which heaviest stress falls on the rightmost constituent, i.e., on the 'particle' (the satellite); *past it* is still the low-stressed DG phrase.

2'-- In (12b'), the DG phrase has deleted, leaving the verb complex alone to its left. The DG phrase can undergo such a deletion in certain cases where the contained G nominal is a deictic or anaphoric pronoun. In such a deletion, moreover, no DIRECTIONAL information is lost since the assatellated copy of the DIRECTIONAL expression

still remains in the verb complex.

3. -- In (12c), there takes place a derivational step perhaps unique to English, which apparently alone of Indo-European languages regularly has its D satellite and D preposition adjacent. Here, these two constituents conflate into a single constituent which might be termed a *satellite-preposition*. This partakes of the properties of both its 'parents': it has the heavy stress of a satellite and the pre-nominal positioning of a preposition. We have here marked this new constituent by enclosing it fore and aft with the symbols ' ‹ ' and ' › '.

-- An additional example of the distinction between a sentence without a satellite and with a preposition and one with a satellite-preposition is:

I could sée through› him (he was transparent)
I could see ‹thróugh› him (he was lying)

4. -- In (12d), we indicate that a sentence in which the GROUND-specifying nominal is the direct object arises simply by deletion of the DIRECTIONAL prepositional - a process which might accordingly be termed *transitivization*. The symbol ' › ' with no prepositional preceding it can thus be used as a marker for the direct object status of the nominal following it. The deletion which takes place in transitivization again causes no information loss since the DIRECTIONAL satellite still remains.

* * *

Of course, the particular sentence-series in (12) does not have an acceptable transitivized form:

*he drove it bý ,

but a closely related sentence-series (which is shown derived below) does have one:

he passed it bý,

and so does the Yiddish sentence-series homologous with that in (12) [here given in the present tense]:

er fort es farbáy.

A transitivized sentence which also contains a satellite, such as the acceptable English sentence just preceding, calls for a restatement in our terms of the well-known principles of 'particle' placement in English:

(14)

(a) in a sentence with a satellite and with a preposition before the GROUND nominal, the satellite cannot move over the preposition -- hence,

he drove <bý past> it

cannot become

*he drove past> it <bý;

(b) in a sentence with a satellite and with no preposition before the GROUND nominal (such as may arise by transitivization), the satellite may move over the nominal if the latter contains a noun and must move over it if it is a pronoun -- hence, to illustrate the latter case,

he passed <by > it

must become

he passed > it <by.

Still in the context of transitivized sentences, we may return to one such, already encountered in section 10.1. There, in (8a1), it was shown that the absence in English of a DIRECTIONAL preposition like *alength, such as might occur in a sentence like

*he walked alength the pier (in 5 minutes),

necessitates resorting to a transitivized sentence like

he walked the pier (in 5 minutes).

The derivation which yields this latter sentence can now be shown, as in (15). There, we postulate as one of the steps the formation of a D satellite which, after the deletion of the D preposition (by transitivization), itself also deletes. By these deletions, all explicit DIRECTIONAL information is lost to the surface. Even in such a circumstance, however, some DIRECTIONAL information can always

be recovered (otherwise than purely by the situational context depicted), since for any particular lexical verb -- such as *walk* -- only a certain few DIRECTIONAL expressions could have been deleted.

(15)

(a) he walked ALENGTH ON> the pier

(b) he walked <ALENGTH ALENGTH ON> the pier [by assatellation]

(c) he walked <ALENGTH > the pier [by transitivization]

[*he walked the pier alength]

(d) he walked >the pier [by satellite deletion]

[he walked the pier (in 5 minutes)]

If, following (12 a), not a MANNER expression but an additional copy from the DIRECTIONAL expression assatellates to the MOTIVE verb, conflating with it to yield a vadic 'MD verb':

[a POINT] MOVE <POR TO-ONE-SIDE <POR TO-ONE-SIDE

pass by

POR TO-ONE-SIDE-OF> [a POINT]

past

then there derive the forms indicated in (16), the stages of which are lettered to correspond to those of (12):

(16)

(b) [a POINT] pass by past> [a POINT]
[*he passed by past it]

(b') [a POINT] pass <by
[he saw us on the corner, but he just passed by]

(c) [a POINT] pass <by> [a POINT]
[he passed by it]

(d) [a POINT] pass <by > [a POINT]*
[he passed it by]

---

* Although it means something different, a structure parallel to this one -- containing a bound, rather than a free, satellite -- can be compared here:

[a POINT] pass <by- > [a POINT]
[he bypassed it]

It should be noted that the English morpheme *by* can be inserted not only onto the D satellite *POR TO-ONE-SIDE*, as seen above or in

(17)

(a) the ball flew by past my head,

but also onto the D satellite *POR OVER*, as in

(b) the ball flew by over my head.

But the morpheme should not be too closely identified with *POR-* containing satellites in general, since it cannot be inserted onto most others:

(c) *the ball flew by through the hoop

(d) *the ball flew by through the windowpane

(e) *the ball rolled by across the border.

In Russian, however, the morpheme which most corresponds to English *by* -- viz., the verb prefix *pro-* -- should indeed be more closely identified with the *POR-* containing satellites, since it can be inserted onto four of these, not merely two, as demonstrated in (18)*.

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* The Russian forms here and all other non-English forms cited in the Appendix have been either supplied by or checked with native speakers.

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(18)

(a) m'ač proletel mimo golovy
the ball flew-by past (my) head

(b) m'ač proletel nad golovoĭ
the ball flew-by over (my) head

(c) m'ač proletel čerez obruč
the ball flew-by through the hoop

(d) m'ač proletel čerez steklo
the ball flew-by through the glass

(e) *m'ač prokatils'a čerez granicu
the ball rolled-by across the border

Parallel to the derivation in (12) for the DIRECTIONAL expression *POR TO-ONE-SIDE-OF*, we now present the derivation for *TO IN*; here, fewer of the stages in the derivation are acceptable surface forms:

(19)

(a) [a POINT] MOVE TO IN> [a SPHERE]
into

—> [a POINT] MOVE into> [a SPHERE]

[*he wálked into it]

(b) —> [a POINT] MOVE <TO IN TO IN> [a SPHERE]
in into

—> [a POINT] MOVE <in into> [a SHERE]

[*he walked in into it]

(b') —> [a POINT] MOVE <in

[he stood at the entrance to the house,
and then he walked in]

(c) —> [a POINT] MOVE <in into> [a SPHERE]
into

[he walked into it]

Comments:

-- For the underlying DIRECTIONAL expression *TO IN* (and for several other expressions), it is doubtful that English any longer uses the derivational form shown in (19a) -- i.e., where there is a DG phrase but no D satellite, so that it is the verb which receives verb-complex stress (and this is not contrastive stress).

-- It is clear that English lacks the derivational form in (19b) containing both a D satellite and a DG phrase. This form is highly positable as a deep structure, however, because it is homologous with occurrent English forms involving other DIRECTIONAL expressions, as seen in (12b) for *he drove by past it*, and because it is homologous with other languages' occurrent forms involving the same DIRECTIONAL expression. In fact, German has occurrent forms homologous with both (19a) and (19b), as shown in (20):

(20)

(a) [a POINT] MOVE TO IN> [a SPHERE]
in +-acc

[er ging ins Haus]

(b) ⟹ [a POINT] MOVE <TO IN TO IN> [a SPHERE]
+ein in +-acc

[er ging ins Haus hinein]

-- The derivational form in (19b) is also highly positable as a deep stage to be passed through because deletion of the DG phrase yields

an occurrent form, as seen in (19b'),

-- and because conflation of the D satellite and the D preposition into a satellite-preposition also yields an occurrent form, as seen in (19c).

-- It might be noted here that the satellite-preposition just referred to, i.e., ‹*into*›, is distinct from the satellite plus preposition sequence ‹*in to*› not only grammatically but also phonologically (by such 'junctural' phenomena as segment transitions, syllable-duration rhythm, etc.), as observable in (21):

(21)

(a) I walked ‹into› him (he was a giant with an opening)

(b) I walked ‹in to› him (he was sitting in his room).

* * *

For a third illustration, we present in (22) the derivation for the underlying prepositional *WITH*, which, though this expression is not strictly a DIRECTIONAL, parallels the derivations in (12) and (19). As with (12), each stage of the derivation yields, upon vadic insertion, an acceptable surface sentence. In (22), moreover, the homologous insertions and exemplary sentences for two languages -- English and Yiddish -- are shown simultaneously.

(22)

(a)	MOVE	WITH>	
	E:	with	he's coming with me
	Y:	mit	er kumt mit mir
(b)	⟶ MOVE	<WITH WITH>	
	E:	along with	he's coming along with me
	Y:	mit mit	er kumt mit mit mir
(b')	⟶ MOVE	<WITH	
	E:	along	he's coming along
	Y:	mit	er kumt mit
(c)	⟶ MOVE	<WITH WITH>	
	E:	along with	
		with	he's coming with me

Most of Russian's surface translatory sentences are obligatorily of the form at the (b) stage [or, after deletion, at the (b') stage] of the derivations shown above for English, German, and Yiddish. That is, they contain both a D satellite and a D prepositional [or contain just the D satellite after deletion of the DG phrase]. This is illustrated for the DIRECTIONAL expression *TO IN* in (23):

(23)

(a) [a POINT] MOVE TO IN> [a SPHERE]

(b) —> [a POINT] MOVE <TO IN TO IN> [a SPHERE]
v- v + -acc

on	vbežal	v	dom
he	ran-in	into	the house (acc)

(b') —> [a POINT] MOVE <TO IN
v-

on	vbežal
he	ran-in

In (24) we now present a number of Russian's D satellite plus D prepositional combinations. It may be noted that for most of the combinations the satellite has the same phonological shape as the preposition and thus reflects at the surface its derivational origin as a copy from the underlying DIRECTIONAL expression. In the format used in (24), each Russian D combination appears on the left and is exemplified in a Russian sentence (with a sublinear translation) to its right. Under each Russian D combination appears the closest English equivalent(s) -- this variously turns out to be simply a preposition, a satellite plus a preposition, a satellite-preposition, a phrase, or non-existent (as in (24 i), where a devised bathic equivalent is shown). Each English DIRECTIONAL form is exemplified to its right in an English sentence. Here, the lexical GROUND

nominal is given in parentheses and only its pronominalization appears in the sentence proper so that the right conditions can be present in which stress placement reveals the type of the DIRECTIONAL form. While the English sentence's first responsibility is to provide a suitable showcase for the English DIRECTIONAL form under illustration, we have additionally tried to make it as close an equivalent of the Russian sentence as possible. Asterisks mark those entries in (24) which are commented upon in (25).

(24)

(a)	‹v- v + -$\overline{\text{acc}}$›	on vbežal v dom	
		he ran-in into the house (acc)	
	‹into›	he ran ínto it (the house)	
(b)	‹na- na + -$\overline{\text{acc}}$›	on nastupil na zme'u	
		he stepped-on onto the snake (acc)	
	‹onto›	he stepped (down) ónto it (the snake)	
(c)*	‹na- na + -$\overline{\text{acc}}$›	my nabreli na derevn'u	
		we wandered-on onto a village (acc)	
	onto›	we wándered onto one (a village)	
	upon›	we háppened upon it	
	across›	we stúmbled across it	

(d)* ‹na- na + -acc› my napali na vraga
we fell-on onto the enemy (acc)

upon› we fell upon them (the enemy)

we rode upon them (the enemy)

(e) ‹ob- ob + -acc› on oblokotils'a o stenu
he leaned-against against the wall (acc)

against› he leaned against it (the wall)

(f) ‹pod- pod + -acc› šarik podkatils'a pod krovat'
the ball rolled-under under the bed (acc)

‹under› the ball rolled under it (the bed)

(g)* ‹za- za + -acc› mes'ac zašël za tuču
the moon went-'za' 'za' the cloud (acc)

on zaplyl za mol
he swam-'za' 'za' the breakwater (acc)

‹behind› the moon went behind it (the cloud)

‹beyond› he swam beyond it (the breakwater)

(h)* ‹pri- k + -dat› on prikolol izveščenie k doske
he pinned-fast the notice to the board (dat)

vetka primërzla k oknu
the twig froze-fast to the window (dat)

(‹fast) to› he pinned the notice (fast) to it (the board)

‹stuck to› the twig froze stuck to it (the window)

(i)* ‹pri- k + -dat› on priexal k granice
he drove-INTO-ARRIVAL to the border (dat)

*‹INTO-ARRIVAL at› *he drove INTO-ARRIVAL at the border
°driving, he WENT ‹INTO-ARRIVAL at the border
arrived

(j) ‹pod k + -dat› on podbežal ko mne
he ran-'up' to me (dat)

‹up(-)to› he ran úp(-)to me

(k)* ‹do- do + -gen› on došël do Kieva
he walked-'do' 'do' Kiev (gen)

on doplyl do berega
he swam-'do' 'do' shore (gen)

all the way to› he walked all the way to Kiev
he swam all the way to shore
(or, closer to the Russian sense:)
walking, he made it (got) all the way to Kiev
swimming, he made it (got) all the way
(back) to shore

(l) ‹vy- iz + -gen› on vybežal iz doma
he ran-out out-of the house (gen)

‹out-of› he ran óut-of it (the house)

(m) ‹s- s + -gen› kot sprygnul so stola
the cat jumped-off off-of the table (gen)

‹off-of› the cat jumped óff-of it (the table)

(n)* ‹iz- iz + -gen› **zapax isxodit iz cvetov**
an odor comes-forth from the flowers (gen)

‹forth from› an odor is coming forth from them (the flowers)

(o) ‹ot- ot + gen› **on otbežal ot men'a**
he ran-'ot' from me (gen)

on ot·exal ot moeĭ mašiny
he drove-'ot' from my car (gen)

on otošël ot okna
he walked-'ot' from the window (gen)

‹{off / away / back} a ways from› he ran off a ways from me (and stopped)

he moved away a bit from my car
(he had been parked too close)

he stepped back a ways from the window
(he had been standing too close)

(p)* ‹ot- ot + -gen› **on otkolol izveščenie ot doski**
he unpinned the notice from the board (gen)

‹un- from› he unpinned the notice from the board

(25) Comments on the entries in (24):

1. -- In (24 c), the DIRECTIONAL expression underlying the Russian and all the English D surface-forms -- however it is best represented in bathic morphemes -- may be taken to specify a sematic area something like

'into encounter with/discovery of'.

Here and in a number of other cases, it can be seen that semantic notions which are not strictly DIRECTIONAL have found their way into the specificational area of what is perhaps still best syntactically characterized as an underlying 'DIRECTIONAL expression'. Where in an underlying structure such semantic notions are most appropriately specified and how such underlying portions subsequently move into the DIRECTIONAL expression are not considered here.

2. -- In (24 d), the DIRECTIONAL expression underlying the Russian and the English D surface-forms may be taken to specify a semantic area something like

'into assault upon'

3.-- As a locative prepositional, the Russian expression *за + -ин⇕* means

'on the other side of (from the speaker)'

and hence is more general than the closest single-word English equivalents *behind*, *beyond* and *across*, as used in such sentences as

he's behind the tree, he's beyond the breakwater, he's across the river. The Russian satellite + prepositional combination shown in (24 g) -- i.e., <за- за + -ade> -- also has this more general DIRECTIONAL meaning, but in addition specifies a particular semantic increment, so that the meaning of the whole can be represented as:

'into occultation/inaccessibility on the other side of'.

Thus, the meaning of the Russian sentences in (24 g) is perhaps most closely represented in English by such 'rendered translations' as

the moon went + into-occulatation on-the-other-side-of the cloud
he swam + into-inaccessibility on-the-other-side-of the breakwater

or by such 'casual translations' as

the moon disappeared behind the cloud
he swam dangerously far beyond the breakwater.

4. -- In (24h), the DIRECTIONAL expression underlying the Russian and the first English D surface-forms may be taken to specify a semantic area something like

'into attachment (affixment) to'.

In fact, 'into attachment' appears to have been precisely one of the meanings of the obsolescent English satellite <*fast*. This satellite is here shown in parentheses, however, because, in modern English, any sentence with an appropriate DG phrase can as well omit as contain

‹*fast* in this meaning; thus, e.g.,

he nailed the board fast to the wall

and he nailed the board to the wall.

If the DG phrase has been deleted, however, the satellite cannot be omitted; thus,

he nailed the board fast

but *he nailed the board.

-- The second English form, ‹*stuck to*›, specifies a narrower semantic area than the first form. It is not as close an equivalent of the Russian form, but it can be an appropriate translation thereof when, in the actual situation specified, the DIRECTIONAL falls within the requisite narrower area -- as is the case in the lower sentence of the exemplary pairs.

5. -- In (24i), it can be seen that Russian has a D surface-form which exactly specifies the DIRECTIONAL semantic area

'into arrival at (to)'.

The underlying *MOVE* verb is thereby left free to conflate with a *MANNER* expression, yielding, e.g., the vadic Mm verb *drive (exat')*. English lacks such a D surface-form and must, to express the DIRECTIONAL notion at all, conflate the *MOVE* verb with the underlying D satellite, yielding the vadic MD verb *arrive*.

6. -- In (24k), the DIRECTIONAL expression underlying the Russian D

surface-form may be taken to specify a semantic area something like

'counteroppositionally all the way to'.

Since the English expression *all the way to* does not necessarily include the 'counteroppositional' notion, the first two English illustrative sentences do not quite render the Russian sentences. However, since the English verbal expressions *make it* and *get* do include the additional notion -- and, in fact, may be regarded as conflations from *GO* plus *COUNTEROPPOSITIONALLY* -- the second pair of English sentences does render the Russian more closely. In using these verbal expressions, of course, English can no longer conflate a MANNER expression like *by walking* or *by swimming* into the verb -- a limitational circumstance already noted for the case of 'arriving' in comment 5.

7. -- In (24n), the DIRECTIONAL expression underlying the Russian (if not exactly the English) D surface-form seems to specify a semantic area something like

'into issuance/emanation/emission from'.

8. -- In (24p), the DIRECTIONAL expression underlying the Russian and the English D surface-forms may be taken to specify a semantic area something like

'out of attachment to',

or, equivalently,

'into detachment from'.

* * *

Two underlying DIRECTIONAL prepositionals in Russian have derivational characteristics different from those just discussed. These prepositionals are *ABOUT* -- a form not treated in section 10.1 meaning 'all about, here and there, through various points' -- and *ALONG*. When either of these appears in an underlying DIRECTIONAL expression, a copy assatellates to the *MOVE* verb and then -- instead of keying in a distinct prefixal morpheme -- conflates with it to yield a special form of the *MOVE* verb, as sketched in (26). The further conflation of this special form with a MANNER expression -- such as one specifying 'running','flying', 'walking', 'riding', etc. -- yields a vadic verb known in standard grammatical treatments of Russian as the 'indeterminate' or the 'determinate' form of a motion verb, as sketched in (27) and exemplified in (28). It should be noted that these verb forms are fully comparable to those illustrated in (24) except that they have their own D satellite conflated within them.

(26)

(A)

(a) [a POINT] MOVE ABOUT ON> [a PLANE]

(b) ⟶ [a POINT] MOVE <ABOUT ABOUT ON> [a PLANE]
MOVE$_{INDET}$ po + -dat

(B)

(a) [a POINT] MOVE ALONG ON> [a LINE]

(b) ⟶ [a POINT] MOVE <ALONG ALONG ON> [a LINE]
MOVE$_{DET}$ po + -dat

(27)

(a) MOVE (M) <ABOUT (D) <RUNning (m)
↓
MOVE$_{INDET}$ (MD) <RUNning (m)
begat' (MDm)

(b) MOVE (M) <ALONG (D) <RUNning (m)
↓
MOVE$_{DET}$ (MD) <RUNning (m)
bežat' (MDm)

(28)

(a) on begal po ulice (20 minut / for 20 minutes)
he ran-about about-on the street (dat)

he ran (all) about/around (on) the street (for 20 minutes)

(b) on bežal po ulice (20 minut / for 20 minutes)
he ran-along along-on the street (dat)

he ran along (on) the street (for 20 minutes)

Now, the derivational characteristics in Russian of underlying DIRECTIONAL expressions containing *ALONG* and of those containg *ALENGTH* form a fascinating comparison. In the former case, as already seen in (26B), a copy of *ALONG* assatellates to and conflates with *MOVE*, while the original DIRECTIONAL expression keys in a vadic prepositional complex. This process is sketched in (29) and then exemplified in (30) for three different DIRECTIONAL expressions containing *ALONG*. In the latter case, a copy of the whole *ALENGTH*-containing DIRECTIONAL expression assatellates to *MOVE*, there keying in a distinct prefixal morpheme, while the original DIRECTIONAL expression deletes -- that is to say, transitivization takes place. It may be assumed that in the vacancy left by the deletion the prepositional formative -$\overline{ace}$ is later transformationally introduced. This process is sketched in (31) and then exemplified in (32) for four different DIRECTIONAL expressions containing *ALENGTH* -- the first three parallel to those shown for *ALONG*. In the derivational sketches which follow, parentheses placed around forms either indicate deletion or irrelevance to a particular conflation;

for clarity, *AROUND* is used instead of *TO-ONE-SIDE-OF* [a POINT], and *ACROSS* is used instead of *ON* [a BOUNDED PLANE].

(29)

(a) MOVE ALONG ON> ⟶ MOVE <ALONG ALONG ON>
$MOVE_{DET}$ po + -dat

(b) MOVE ALONG INSIDE> ⟶ MOVE <ALONG (ALONG) INSIDE>
$MOVE_{DET}$ v + -prep

(c) MOVE ALONG AROUND> ⟶ MOVE <ALONG (ALONG) AROUND>
$MOVE_{DET}$ vokrug + -gen

(30)

(a) on bežal po ulice (20 minut / for 20 minutes)
he ran-along along-on the street (dat)

(b) butylka plyla v trube (20 minut / for 20 minutes)
the bottle floated-along in the pipe (prep)

(c) satelit letel vokrug zemli (3 dn'a / for three days)
the satellite flew-along around the earth(gen)

(31)

(a) MOVE ALENGTH ON> ⟶ MOVE <ALENGTH ON (ALENGTH ON)>
pro-

(b) MOVE ALENGTH INSIDE> ⟶ MOVE <ALENGTH INSIDE (ALENGTH INSIDE)>
pro-

(c) MOVE ALENGTH AROUND> ⟶ MOVE <ALENGTH AROUND (ALENGTH AROUND)>
ob-

(d) MOVE ALENGTH ACROSS> ⟶ MOVE <ALENGTH ACROSS (ALENGTH ACROSS)>
pere-

(32)

(a) on probežal (vs'u) ulicu v 30 minut
he length-ran the (whole) street (acc) in 30 minutes

(b) butylka proplyla trubu v 30 minut
the bottle through-floated the pipe (acc) in 30 minutes

(c) satelit obletel zeml'u v 3 casa
the satellite circum-flew the earth (acc) in 3 hours

(d) on perebežal ulicu v 5 sekund
he cross-ran the street (acc) in 5 seconds

NB: In (31b and d), the original DIRECTIONAL expression has the option of keying in the prepositional *čerez* + -*acc* instead of deleting, so that, in (32b and d), 'Čerez ' can be inserted before the final
through/across
nominal.

It seems likely, from casual inspection of various languages, that the derivational patterns just seen for *ALONG-* and *ALENGTH-*containing DIRECTIONAL expressions in Russian are Indo-European in origin and pan-Indo-European in original distribution, however much the system may have subsequently eroded in various languages. (As one particular note, it seems likely that in the *ALENGTH* case the assatellated DIRECTIONAL expression always keyed in an 'inseparable', rather than a 'separable', prefix to the verb in Germanic languages.)

3. The MD Verb

It has been seen in Part I for English (and now in the Appendix for Russian) that, in the perhaps most typical, or characteristic, derivational pattern for a translatory structure, the MOTIVE verb conflates with a MANNER expression to yield a 'MOTIVE+MANNER-specifying' or 'Mm' verb. Thus, English (or Russian) has a whole system (using this term loosely here) of vadic verbs which -- as the result of conflation -- specify motion (and location) in various manners.

Similarly, it has been seen in Part I for Atsugewi that, in the perhaps most typical derivational pattern for a translatory structure, the MOTIVE verb conflates with a FIGURAL expression to yield a 'FIGURE+MOTIVE-specifying' or 'FM' verb-root. Thus, Atsugewi has a whole system of vadic verb-roots which -- as the result of conflation -- specify the motion (and location) of various objects.

Now it will be shown for Spanish that, in the perhaps most typical derivational pattern for a translatory structure, the MOTIVE verb conflates with a copy from the DIRECTIONAL expression to yield a 'MOTIVE+DIRECTIONAL-specifying' or 'MD' verb, as sketched in (33).

(33)

(a) [a POINT] MOVE TO IN> [a SPHERE]

(b) --> [a POINT] MOVE <TO IN TO (IN)> [a SPHERE]
entrar a

Thus, Spanish has a whole system of verbs which -- as the result of

conflation -- specify motion in various directions. Any notion of MANNER -- which English specifies conflatedly in its Mm verb -- in Spanish is either established in the prior discursive context or is specified by an independent expression which is included -- often with some awkwardness -- in the sentence containing the MD verb. In (34), a number of Spanish's MD verbs are shown in autic sentences. In each sentence there is also shown a parenthesized MANNER expression -- viz., *flotando*-- which may be omitted, or included after the verb or at the end, in most cases with some awkwardness. Its inclusion renders the Spanish sentence informationally equivalent to the under-shown English translation, which, since this is intended as a colloquial sentence, contains an Mm verb -- viz., *floated.*

(34)

(a) la botella entró a la cueva (flotando / floating)
the bottle MOVEd-in to the cave (floating)

the bottle floated into the cave

(b) la botella salió de la cueva (flotando / floating)
the bottle MOVEd-out from the cave (floating)

the bottle floated out of the cave

(c) la botella pasó por la piedra (flotando / floating)
the bottle MOVEd-by past the rock (floating)

the bottle floated past the rock

(d) la botella pasó por el tubo (flotando / floating)
the bottle MOVEd-through through the pipe (floating)

the bottle floated through the pipe

(e) el globo subió por la chimenea (flotando / floating)
the balloon MOVEd-up through the chimney (floating)

the balloon floated up the chimney

(f) el globo bajó por la chimenea (flotando / floating)
the balloon MOVEd-down through the chimney (floating)

the balloon floated down the chimney

(g) la botella se fué de la orilla (flotando / floating)
the bottle MOVEd-away from the bank

the bottle floated away from the bank

(h) la botella volvió a la orilla (flotando / floating)
the bottle MOVEd-back to the bank

the bottle floated back to the bank

(i) la botella le dió vuelta a la isla (flotando / floating)
the bottle [gave turn to it:] to the island
MOVEd-around

the bottle floated around the island

(j) la botella cruzó el canal (flotando / floating)
the bottle MOVEd-across the canal

the bottle floated across the canal

(k) la botella iba por el canal (flotando / floating)
the bottle MOVEd-along along the canal

the bottle floated along the canal

(l) la botella andaba por el canal (flotando / floating)
the bottle MOVEd-about about the canal

the bottle floated around the canal

(m) las dos botellas se juntaron (flotando)
the two bottles MOVEd-together$_a$ (floating)

the two bottles floated together

(n) las dos botellas se separaron (flotando)
the two bottles MOVEd-apart$_a$ (floating)

the two bottles floated apart

(It might be noted that the Spanish MD verbs in (k) and (l), i.e., those meaning 'MOVE-along' and 'MOVE-about', are quite parallel to Russian's determinate and indeterminate verb-pairs, except that the latter have a MANNER-specifying expression, such as 'floating', additionally conflated within them. The use of *por* after the Spanish verbs is also quite parallel to the use of *po* after the Russian verbs.)

The same pattern-difference which distinguishes Spanish from English in sentences based on an autic structure also does so in sentences based on a self-effective structure.*

---

* This structure, which for no good reason was not explicity treated in Part I, specifies that an entity, as AGENT, effects the motion of his own body, as FIGURE, and undergoes a derivation wherein *MOVE* gives rise to *GO*, as sketched in (i):

(i)

(a) an ENTITY (A) EFFECT (ρ) TO (δ)

it, that the ENTITY's BODY (F) MOVE (M) + 'DIRECTIONAL' + 'GROUND'

[BY it, that the ENTITY WILL ON the ENTITY's BODY]

(b) →an ENTITY (A) e<u>MOVE (ρδM) the ENTITY's BODY (F)</u>
GO (ρδMF)

+ 'DIRECTIONAL' + 'GROUND'

(c) →an ENTITY (A) GO (ρδMF) + 'DIRECTIONAL' + 'GROUND'

There are, of course, surface sentences in many languages which are based on the structure in (ib), before the conflation into *GO*. Compare, e.g., the following English '(b)' and '(c)' type sentence-pairs:

(ii)

(b) he threw himself out the window
(c) he jumped out the window

(b) he dragged himself to work
(c) he trudged to work

Thus, just as Spanish typically conflates a DIRECTIONAL expression with *MOVE*, as was sketched in (33), so does it also with *GO*:

(35)

(a) [the 'AGENT'/a POINT] GO TO IN> [a SPHERE]

(b) --> [the 'AGENT'/a POINT] GO <TO IN (entrar) TO (a) (IN)> [a SPHERE]

A few examples of paired Spanish and English self-effective sentences -- parallel to the autic sentence-pairs of (34) -- are now shown in (36).

(36)

(a) el hombre entró a la casa corriendo
the man WENT-in to the house running

the man ran into the house

(b) el hombre salió de la casa corriendo
the man WENT-out from the house running

the man ran out of the house

(c) el hombre subió (por / along) las escaleras corriendo
the man WENT-up the stairs running

the man ran up the stairs

(d) el hombre bajó (por / along) las escaleras corriendo
the man WENT-down the stairs running

the man ran down the stairs

(e) el hombre llegó a la casa corriendo
the man WENT-INTO-ARRIVAL to the house running

[here, English must resort to the Spanish pattern:]

the man arrived at the house at a run

The Spanish pattern of conflating a DIRECTIONAL expression with the MOTIVE-specifying verb is again observable in sentences based on an effective structure containing $_{e}MOVE$. Several of the surface verbs which result from such conflation are shown tabularly in (37).

(37)

A poner F en G	A put F onto G
A meter F a G	A put F into G
A subir F a G	A put F up (on) to G
A juntar F_1 & F_2	A put F_1 & F_2 together
A quitar F de G	A take F off of G
A sacar F de G	A take F out of G
A bajar F de G	A take F down from G
A separar F_1 & F_2	A take F_1 & F_2 apart

The English *PUT* verb* may derive to the surface** without further conflating with any MANNER (or other) expression.

---

* This verb can be considered a conflation from *MOVE* and a MANNER expression specifying that the motion of the FIGURE is effected by the motion of the AGENT's body-parts without the translatory motion of the AGENT's whole body. This latter notion is specified by the English *CARRY* verb (—> *carry, bring, take*).

** The verb keys in the suppletive vadic forms *put, take, move,* and *pick*. The particular form keyed in is determined automatically:

put in the presence of *TO*
I put the ball into the box
I put the plate up onto the shelf

take in the presence of *FROM*
I took the ball out of the box
I took the plate down off of the shelf

pick in the presence of *FROM* and *up*
I picked the plate up off of the bench

move in the presence of *ALONG* or *ALENGTH*
I moved the toy car along the track
I moved the lamp three feet back

However, it *may* further conflate, whereas the Spanish effective MD verbs may not. To give one example of this difference, English can say not only

I took the wrapper off the package

but also

I tore the wrapper off the package

I peeled the wrapper off the package

I cut the wrapper off the package,

whereas Spanish is limited to

quité el papel de -l paquete
I-$_e$MOVEd-off the paper from the package

The whole issue of the difference between English and Spanish recalls the discussion in section 4.1 on the differential disposition of information-specification in languages. There it was shown that Atsugewi -- with its extensive verb complex (i.e., the sentential-verb) and the conflational and assatellational characteristics thereof -- can backgroundedly (and casually) pack in specifications for FIGURE, GROUND, INSTRUMENT,and several more semantic components, where English must make the same specifications foregroundedly (and sometimes awkwardly) with independent expressions. As Atsugewi is to English, so English is to Spanish. For, English -- with its moderate-sized verb complex and the conflational and assatellational characteristics thereof -- can backgroundedly (and casually) pack in specifications for MANNER and several DIRECTIONALs, where Spanish must make the same specifications foregroundedly (and often awkwardly) with independent expressions. In some cases, in fact, the equivalent quantity of specifications *cannot* be made in a single sentence, so that a portion must either be omitted or established elsewhere in

the discursive context. As an example of this extreme situation, a rather ordinary English sentence like

The man ran back down into the cellar,

containing the backgrounded specifications for one MANNER and three DIRECTIONALs, has no Spanish informational-equivalent which is not impossibly awkward. The closest reasonable Spanish sentences specify at most two of these four components, as shown in (38) [here, the verb in the English translations is chosen so as to render the Spanish verb].

(38)

(a) el hombre corrió a -l sótano
the man ran to the cellar

the man ran to the cellar

(b) el hombre volvió a -l sótano corriendo
the man WENT-back to the cellar running

the man returned to the cellar at a run

(c) el hombre bajo a -l sótano corriendo
the man WENT-down to the cellar running

the man descended to the cellar at a run

(d) el hombre entró a -l sótano corriendo
the man WENT-in to the cellar running

the man entered the cellar at a run.

The patterns of information-disposition for the languages we have looked at are now summed up in the table in (39).

(39)

Language:	Characteristic Type of Information Backgrounded by:	
	Conflation with the MOTIVE Verb	Assatellation into the Verb Complex
Atsugewi	FIGURE (in the FM root)	FIGURE (in the F prefix) GROUND (in the DG suffix) INSTRUMENT (in the *FC* or *BC* prefix)
English & Russian	MANNER (in the Mm verb)	DIRECTIONALs (in the D satellites)
Spanish	DIRECTIONAL (in the MD verb)	----- [some MANNER expressions, e.g., *corriendo*, may be close-knit to the verb]

It is of course an interesting matter to inspect other languages for their characteristic pattern and perhaps to discern some additional patterns. As one particular note in this vein, it appears on the basis of casual inspection that French (all of Romance?), Hebrew, and Samoan are of the Spanish pattern and that Nez Percé is of a pattern distinct from the three discussed (or, more accurately, is of a pattern further developed from a basically Spanish-type: beside a system of MD verb [-roots], the language apparently has a system of MANNER-specifying satellites [in particular, as affixes to the root in a polysynthetic verb-complex]).

WORKING PAPERS ON LANGUAGE UNIVERSALS

Number Eleven
April 1973

Language Universals Project
Committee on Linguistics
Stanford University
Stanford, California