Essays on
Language Function and
Language Type

Dedicated to T. Givón

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Mind, Code, and Text*

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The problem of inter-linguistic translation ... springs from the fact that the
great bulk of typological differences between languages involve the way in
which they map their semantic structures onto surface expression. ... In terms
of typological characterisation of a language, syntax and lexicon constitute a
single complex whose two components define each other (Givón 1978: 235).

In the introduction to his book, Mind, Code and Context, Talmy Givón presents
some guiding principles of pragmatics (1989: 2):

Picture and frame: "A picture is not fully specified unless its frame is also
specified."

Meaning and context: "The meaning of an expression cannot be fully
understood without understanding the context in which the expression is used."

In this chapter I explore the notion of "frame" as the typological framework of
the language in which an event is encoded — the code, and explore the notion
of "context" as the the type of text that results from the use of a particular code.
Preliminary data from written and oral narratives and from adult—child discourse
suggest that some aspects of mind can be understood in terms of relations
between code and text. As a major research tool, I will make use of translation,
continuing Givón's longstanding interest in this problem, as reflected in the
epigraph drawn from his early paper, "Universal grammar, lexical structure and
translatability" (1978). In the course of the exploration, it will become evident
that syntax, lexicon, and text co-determine each other.

To set the stage, consider the following sentence from a novel written in
English: "I ran out the kitchen door, past the animal pens, towards Jason's
house" (Anaya 1972: 9–10). The verb, ran, encodes a particular manner of
movement, and locative particles and prepositions encode the path: out — past — towards. When this sentence is translated into Spanish, interesting realignments occur (Anaya 1992: 10):

(1) I ran out the kitchen door,  
    *Salí por la puerta de la cocina,*  
    'I exited through the kitchen door,'  
    *pasé por los corrales*  
    'passed by the animal pens,'  
    towards Jasón's house.  
    *y me dirigí a casa de Jasón,*  
    'and directed myself to Jasón's house.'

Where English uses one verb, Spanish uses three: salir ‘exit’, pasar ‘pass’, dirigirse ‘direct oneself’. Note that all three encode directionality, and that description of manner is absent. The two prepositions, por and a, have only general directional meaning, adding little or no information beyond that specified by the verbs. Clearly, a translator has to make choices in fitting one language to another. There is no way to attach one manner verb to all of the components of this path, as in English. The translator might have indicated that one part of the path was traversed runningly — for example, salir corriendo ‘leveled running’ — but this very choice would have foregrounded manner with regard to only exiting (or passing, or approaching). Repetition of corriendo ‘running’ on all three verbs would be stylistically intolerable. So, apparently, this translator was content to convey the trajectory alone, leaving it to the reader to infer manner on the basis of the surrounding descriptions of the protagonist's state of mind.

Decisions such as these are not simply stylistic or aesthetic; rather, they are strongly influenced by the typologies of the source and target languages. English is the type of language that Talmy (1985 1991) has termed “satellite-framed.” With regard to the description of motion events, English provides its speakers with a set of locative particles — “satellites” — which encode the core meaning, namely, that an entity has changed location. Satellites can occur with manner verbs, such as ran out, and they can be accumulated in relation to a single verb, as in Talmy's (1983: 102) example of a parent calling to a child in a treehouse: “Come right back down out from up in there!” Spanish, by contrast, is “verb-framed”; that is, each type of change in location is encoded by a separate verb: salir ‘exit’, pasar ‘pass’, and so forth. Gerunds of manner verbs can be associated with path verbs, such as salir corriendo ‘exit running’.

In this chapter I focus on verbs of self-movement in these two types of languages, drawing upon Germanic and Slavic languages as satellite-framed, and Romance, Semitic, Turkic, and Japanese as verb-framed. Three components of motion events figure in the comparisons: (1) path, (2) ground, and (3) manner of movement. The two language types are abbreviated to “S-language” and “V-language.” The lexicalization patterns of S- and V-languages have consequences for the ways in which speakers focus on these components separately and in interaction, as reflected both in lexical choice and the syntax of narrative discourse.

1. Path and Ground

The term path, as used here, refers to translational motion. In its most elaborated expression, a path moves from a source to a goal, along or through some medium, passing one or more milestones — for example: “He went from the station [source], along the avenue [medium] and through the crowds [medium], past the monument [milestone], to his office [goal].” Following Talmy, figure is used to refer to the entity that moves, and ground is used to refer to source, medium, milestone, and goal.

The stylistic consequences of lexicalization patterns can be clearly seen when comparing translations between the two types of languages. To begin with, consider English as a source language. At Berkeley we have devised a coding system for the analysis of motion events in narrative and have applied it to a chapter of The Hobbit (Tolkien, 1937). We chose The Hobbit because it has been widely translated, and we chose Chapter 6, “Out of the frying pan into the fire,” because of the challenges posed by the movements of human-like creatures, wolves, and eagles. So far we have carried out a detailed analysis of the original along with translations into a collection of S-languages (Dutch, German, Russian) and V-languages (French, Italian, Portuguese, Spanish, Hebrew). The chapter begins with Bilbo the Hobbit “wandering on and on”:

(2) a. English original: He still wandered on, out of the little high valley, over its edge, and down the slopes beyond...

The single verb, wander, is non-directional and the path is laid out in a series of particles and prepositional phrases. Translations into Germanic languages follow this satellite-framed pattern. Consider Dutch, for example:

(2) b. Dutch translation: Hij zwief verder, het kleine hoge dal uit, over de rand en daarachter gelegen hellingen af...

‘He wandered further, the little high valley out, over the edge and beyond located slopes down...’
By contrast, the translations into Romance languages require the use of several different directional verbs to trace out this path. Note, for example, the “uncompacting” of path segments into separate verbs in French:

(2) French translation: Il continua d’avancer au hasard, sortit du haut vallon, en franchit le bord et descendit le pentep au dela...

"He continued to advance haphazardly, exited from the high small valley, crossed the edge of it and descended the slope beyond..."

When moving from a V-language into an S-language, the opposite occurs — namely, “compacting” of directional verbs into path expressions associated with a single verb. Example (3) is drawn from a modern Turkish novel. Although Turkish is not a Romance language, it is of the same type, thus clearly showing that we are dealing with a feature of typological rather than genetic linguistic or cultural patterning. Note that the ground nouns are not in prepositional phrases, as in French, but occur with directional suffixes; nevertheless, the verb-framed organization remains the same.

   'Iğdır plain-ABL Başköy-DAT passed. Ahuri vale-DAT ascended, there-ABL. Ahuri plateau-DAT passed.'

(3) b. English translation: They swept along the plain of Iğdır, on to Bashkoy, through the Ahuri Vale and up on to the Ahuri plateau. (Kemal 1975: 22)

The English version is, indeed, one ‘sweep’: along — on to — through — up on to. The original is, by contrast, segmented: pass from — to; ascend to; pass from — to. (The original also makes no explicit mention of manner; we will return to this fact.)

Why should the typological opposition lead to such asymmetries in connected discourse? Is it simply the case that each path verb can occur with only one explicit ground element? This cannot be the explanation, because the Turkish example shows that it is possible, in a V-language, to encode more than one ground element with a verb of motion: ‘pass from the plain to Başköy [a village]’. Similar examples can be found in the Romance languages, as in (4), from a Spanish novel:

(4) Spanish original: Ibamos caminando desde la casa del tío Lucho... hacia el cine Barranco. (Vargas Llosa 1977: 20) ‘We went walking from Uncle Lucho’s house... toward the Barranco Cinema.’

1.1. Boundary-crossing

In order to account for the stylistic differences between the two types of languages it is necessary to add another sort of path component: boundary-crossing (Ask 1989; Slobin 1996b; Slobin and Hoiting 1994). It appears to be a universal characteristic of V-languages that crossing a spatial boundary is conceived of as a change of state, and that state changes require an independent predicate in such languages. In English, for example, one can use satellites not only for change of locative state — e.g., he ran into the house, but for changes of state generally — e.g., he kicked the door shut. By contrast, in a V-language one must say the equivalents of ‘he entered the house running’ and ‘he shut the door by kicking’, predicating the change of state in the main verb and expressing the manner or cause in a subordinate fashion (Ask 1989; Talmy 1991). When a path crosses a boundary, then, it is no longer possible to accumulate a series of grounds to a single verb, because the state-change from one side of the boundary to the other will be expressed by a separate verb, with its associated ground, such as sortir ‘exit’ and franchir ‘cross’ in (2c) and gēmek ‘pass, cross’ in (3a). This constraint is seen clearly in translations from a V-language to an S-language. For example, whereas an English writer can use one verb for ‘descending and exiting’, the Spanish translator requires two:

(5) a. English original: ...she went downstairs and out of the house.
   (Fowles 1969)

(5) b. Spanish translation: ...ella bajó la escalera y salió de la casa.
   (Fowles 1981)
   ‘...she descended the staircase and exited from the house.’

On the other hand, if no boundary is crossed, the translation matches the original, using one verb and two grounds:

(6) a. English original: I went up the great stairs towards her...
   (du Maurier 1938: 65)

(6) b. Spanish translation: Subí los anchos escalones hasta ella...
   (du Maurier 1959: 99) ‘I ascended the broad stairs towards her...’

As far as I can tell, boundary-crossing plays no role in the lexicalization patterns and associated syntax of S-languages. Sentences (5a) and (6a) seem equally natural and unexceptionable in English, though requiring different kinds of translations — and perhaps conceptual analyses — in a V-language like Spanish.
1.2. Relation of grounds and verbs

These factors have consequences for the narrative style of original texts and of translations in and between the two language types. Consider, first, the expression of grounds (source, goal, medium, milestone). The necessary segmentation of some kinds of paths into separate predicates in V-languages affects the ratio of grounds to verbs in texts:

Proposal: Texts in V-languages will generally be characterized by the occurrence of fewer ground elements per verb, in comparison with texts in S-languages.

Preliminary surveys of a collection of literary texts seem to support this hypothesis. Verbs of motion and their accompanying grounds have been coded in samples from S-languages (English, German, Dutch; Russian) and V-languages (French, Spanish; Turkish; Japanese). Overall, satellite-framed texts have more than one ground element per verb, whereas verb-framed texts have fewer than one ground element per verb. Perhaps of greater import is the finding that in our sample of texts from V-languages there are no instances of a verb occurring with more than two grounds; the S-language texts, by contrast, have a number of instances of three or more grounds per verb.

One obvious explanation for these contrasts may be that the paths of movement that narrators are interested in seldom go on for long without going across some boundary — that is, entering, exiting, or crossing. It would then be inevitable for a V-language narrative to break such trajectories into separate predicates, each with its own ground, as in (5b). Indeed, the great majority of extended paths do involve segments of boundary crossing. It is striking that most of the human movements that are described in narrative texts are filled with comings in and goings out and passings by or through. Protagonists do not seem to spend much time simply moving along a route. These real-world facts of human action and narrative interest are certainly part of the explanation. But they do not explain why V-language writers do not accumulate grounds to a verb in those situations in which a protagonist does move with respect to several grounds without crossing a boundary. For example, I have encountered nothing like the following unexceptional English sentence in any of the V-language texts. The three ground elements are in boldface:

(7) a. English original: So the three men walked slowly and without visible agitation through the streets from the jail to the marshy... (Michener 1978: 764).

b. Original: Así, pues, los tres hombres caminaron lentamente y sin agitación visible por las calles, desde la cárcel hasta el extremo de la marisma... (Michener 1980: 570)

"Thus, then, the three men walked slowly and without visible agitation through the streets, from the jail up to the edge of the marsh..."

1.3. Style

Although sentences such as (7b) are possible, they seem to be strongly disfavored by V-language writers in our sample. In addition to the general human interest in movements that cross boundaries, there must be some additional constraint at work. I suggest that a general narrative style emerges in a language, based on systematic linguistic constraints, but going beyond them. The combined effect of a lexicon of path-verbs along with a boundary-crossing constraint is a style in which most path segments are encoded by separate verbs with a limited number of ground nominals per verb. The result is a sort of "rhythm" that becomes a habit or a norm, setting a framework that goes beyond its core linguistic determinants.

Proposal: Each type of lexicalization pattern engenders a type of style.

Although sentences like (7b) can be used in translations, I suspect that they have a "translational flavor" to Spanish-speaking readers. Original V-language texts move along from verb to verb, without a dense packing of grounds. Thus translators moving from an S- to a V-language often delete some ground elements, presumably to keep the text from becoming "cluttered" in a non-native fashion. In an earlier study of translations from English to Spanish (Slobin 1996b), I found that 24% of path-descriptions were reduced in some way. One type of reduction removes a ground element that can be presupposed; e.g.:

(8) a. English original: He strolled across the room to the door...
    (du Maurier 1938: 329).

b. Spanish translation: Se dirigió a la puerta...
    (du Maurier 1959; 446).

'(He) directed himself to the door..."
Another type of reduction removes a path component, as in the following elimination of vertical movement in the translation:

(9) a. English original: *Gradually he worked his way up to the foot of the bluffs.*... (Fowles 1969: 136)

(9) b. Spanish translation: *Poco a poco, fue acercándose hasta el pie de los riscos,*... (Fowles 1981: 143)

'Little by little he was approaching the foot of the bluffs...'

In such cases, adherence to the original would require the use of an additional verb or directional expression in the translation, resulting in a "non-native" style.

1.3.1. **Psycholinguistic bases of style**

A number of psycholinguistic factors probably play a role in establishing and maintaining style. In producing narrative discourse, speakers of a V-framed language may have learned to organize "prelinguistic messages" into the sorts of path segments that are lexicalized by path verbs in the language. Segments at this level of granularity tend to bring with them particular bits of ground information — passing a milestone, approaching a goal, entering an enclosure, and so forth. This pattern of conceptualization comes to be automated over years of learning and practice. A useful psycholinguistic framework for this proposal is provided by Levelt’s (1989) model of speech production. The relevant component here is the "Conceptualizer," which prepares a preverbal message for the "Formulator" — the component that assembles utterances for production. In the model, the Formulator can only deal with messages that fit language-specific requirements. In the course of language acquisition and use, correspondences develop between the Conceptualizer and the Formulator and become highly skilled. As a consequence, speakers "automatically retrieve the conceptual information to be acknowledged for the specific language spoken" (Levelt 1989: 160). I propose, then, that the Conceptualizer of a V-language speaker has become tuned to prepare preverbal messages that segment and associate paths and grounds in the ways described.

At the same time, comprehenders of V-languages develop expectations of the normal information flow in the language, and are prepared to segment speech and build up mental images in accordance with these habitual and automatic patterns. When these two components of habitual production and comprehension are placed in a social framework, the resulting style is not only freely processible, but also comes to be normatively and aesthetically valued, thus further reinforcing the patterns.

1.3.2. **Rhythm**

One consequence of the confluence of psycholinguistic and cultural factors is the preference for a particular type of narrative rhythm. This factor is perhaps most evident in the emergence of literary forms from oral performance. Fleischman (1990) has detected the influence of oral prosody and pragmatics in medieval vernacular literature. In a discussion of what she calls "information blocking," or the "tempo" of the text (pp. 204-214), she analyzes the representation of journeys in texts such as Le Chevalier au Lion (Yvain), La Chanson de Roland, and Poema del Cid — composed in V-languages (French and Spanish). The pattern at issue is an analysis of paths into segments, such as:

(10) a. Medieval French: *Tant trespasent de la maison que il vindrent en un vergier.* (Yvain, 5344f.) ‘They journey so far from the house that they came to an orchard.’

(10) b. Medieval French: *Tant chevalchent qu’en Saraguce fuit.* (Roland, 2818) ‘He rode so far that he was in Saragossa.’

(10) c. Medieval Spanish: *Partiros de la puerta, por Burgos aguijaba.* (Cid, 51) ‘They left through the gate [and] set off toward Burgos.’

Fleischman notes:

Syntax of this type is designed to block information into relatively small clauses, each corresponding to a metrical unit and arranged with the appearance of a result clause structure... The alternative would be to package all of the information contained in the two clauses into a single clause ("they journey from the house to the orchard," "he/she/they rode as far as Saragossa," "he/she set off for Burgos"), in which the goal of the motion verb is expressed only by a locative noun phrase. ... In the medieval examples..., the linguistic expression of journeys is divided between two clauses, each with its own verb: motion and path (and optionally manner) are expressed by the verb of the first clause, while goal is expressed in a second clause by a verb (generally of little semantic weight) and a locative complement (p. 208).

Fleischman attributes these early literary forms to the demands of oral narration: "they reduce the density of new information, thereby facilitating processing for the listener, while at the same time accommodating the demands of prosody" (p. 209). It is quite plausible that such factors of oral performance played a role in the emergence of literary forms, but one might also suggest that those factors were, themselves, partly influenced by linguistic typology. The sort of pattern found in the early Romance language texts is just what one would expect to find...
in a V-language. The following path description in Poema del Cid is strikingly similar in organization to the modern Turkish description in (3a) above:

(11) Medieval Spanish: ivan troçir los montes, los que dizen de Luzón, / troçieron Arbuxuelo e llegaron a Salón (Cid [1959: 230])

'(they) go to cross the mountains, those called Luzón / they crossed the valley of Arbuxuelo and arrived at Salón'

Early medieval writing in S-languages was apparently not similarly constrained. Chaucer, for example, uses the same kind of compacting of motion events as found in modern English. Consider two examples from The Canterbury Tales. In the first example we find the kind of packaging that is apparently excluded from the Romance languages: is ridden into the fields ... out of the court ... to the grove. Here the demands of prosody and tempo are met by interspersed adverbs, rather than the introduction of separate verbs of motion. The lexical and syntactic organization are typical of an S-language:

(12) a. Medieval English: He on a courses startylla as the fyre. / Is ridden into the feelds, him to pleye, / Out of the court, were it a myle or tweye; / And to the grove, of which I toold thee, / By adventure, his wey he gan to holde... (The Knight's Tale [1964: 70])

'He, on a course, as spirited as fire, / Has ridden into the fields, to amuse himself, / Out of the court, perhaps a mile or two; / And to the grove, of which I told you, / By chance he took his way...'

In the second example we find the familiar accumulation of grounds to one verb: ...to the launde he rydeth him ... over a brook, and so forth on his weye...

(12) b. Medieval English: And to the grove, that stood ful feste by, / In which there was an hert, as men him tolde, / Duke Theseus the streighte way hath holde, / And to the launde he rydeth him ful right, / For thider was the hert woni have his fligth, / And over a brook, and so forth on his weye. (The Knight's Tale [1964: 80])

'And to the grove that stood nearby, / In which there was a hart, as he was told, / Duke Theseus went straight. / And to the glade he rides directly, / For thither would the hart take flight, / And over a brook, and forth on his way.'

Thus it would seem that the demands of rhythm or tempo have interacted with typological patterning from the earliest periods of written literature, leading to different patterns in the emergence of literary languages in Western Europe.

1.3.3. Language type and event analysis

Early medieval writing in both language types reflected information processing and prosodic demands arising from a tradition in which narratives were produced orally and processed by listeners. Modern fiction, however, is written for skilled silent readers who probably require faster and less redundant information flow. The balanced rhythms of early medieval texts may have been pleasing to audiences nourished by oral performance, but the tempo of modern fiction is not constrained by metric considerations. For the modern reader, each individual motion verb in an event description both shows the narrative tempo and foregrounds the particular path segment that is encoded by that verb. Additionally, encoding a continuous path in a series of separate verbs can produce the image of a segmented path. Compare, for example, the single trajectory presented in (5a), she went downstairs and out of the house, with its Spanish translation in (5b), which seems to divide the trajectory into two subevents: ella bajó la escalera y salió de la casa 'she descended the staircase and exited from the house'. These factors of lexicalization may predispose V-language writers to encode only the salient part of a trajectory, leaving the rest to inference. As a result, users of V-languages might differ from users of S-languages with regard to the granularity with which they describe motion events.

Proposal: Comparable motion events will be described with fewer path segments in V-languages than in S-languages.

This proposal is difficult to fully evaluate with regard to translations. Although translations into a V-language often omit path segments that were included in the S-language source, translators generally strive to follow the content of the original. The Spanish translations in (8) and (9) show omission of locative directional material expressed in the English original, but the number of verbs remains constant. If anything, we find addition of verbs, as in the French translation in (2c). However, such versions may stretch the target language beyond its normal narrative style. Therefore, a different sort of method is called for here — a method which provides crosslinguistic descriptions of comparable events without the use of translation. One possibility is to elicit narratives from speakers of various languages, using the same pictured situations. We have employed this method in an extensive series of investigations using a picture storybook without words, Where are you? (Mayer 1969). Studies have been done in a number of S- and V-languages, with children and adults (Berman and
Slobin 1994); here I will focus only on one scene from adult narrations in several languages. It is of interest that language typology contributes to systematic differences in narrative style in this spontaneous oral task, following the same patterns as in written narrative.

The story revolves around a runaway pet frog and a search to recover it, carried out by a little boy and his pet dog. At a critical point in the picture sequence the following event occurs, as described by an English-speaking adult:

(13) English oral narrative: And he gets on top of the rock and calls for the frog again, and leans on what looks like branches. Then these branches turn out to be antlers of a deer. The boy gets snagged on it. The deer runs away with the little boy on its head to the edge of a cliff. The boy falls off into a pond, falls off with his dog. Then, when he’s in the pond, he hears something.

The use of motion verbs with satellites and grounds clearly shows that this is an S-language production (run away to the edge of a cliff; fall off into a pond). However, what is new here is the possibility of analyzing a single eliciting event into its components, and comparing languages with regard to the encoding of those components. Although speakers of both types of languages are able to relate the event at any degree of granularity, the proposal is that speakers of S-languages are more likely to break up the event into a larger number of components, based on “narrative habits” of compacting several path components in a single clause. Speakers of V-languages, by contrast, have developed a narrative style that makes more sparing use of individual motion verbs to encode path components. In one schematic analysis, we looked across languages for mention of the following four potential event components:

1. change of location: deer moves, runs, arrives at cliff
2. negative change of location: deer stops at cliff
3. cause change of location: deer throws boy, makes boy/dog fall
4. change of location: boy/dog fall into water

We examined ten adult stories in each of the following languages: S-LANGUAGES: Germanic: Dutch, English, German, Icelandic, Swedish; Slavic: Polish, Russian, Serbo-Croatian; V-LANGUAGES: Romance: French, Portuguese, Spanish; Semitic: Hebrew. As shown in the following data summaries, speakers of S-languages (a) mention more components on average — about 3 segments, versus 2 for V-languages, and (b) a greater portion of speakers of S-languages mention 3 or more segments. It would seem, then, that habitual use of an S-language may predispose speakers to pay more linguistic attention to components of motion events.

Average number of event segments and percentage of narrators mentioning more than three segments

<table>
<thead>
<tr>
<th>Language</th>
<th>Average</th>
<th>More than three</th>
</tr>
</thead>
<tbody>
<tr>
<td>Satellite-Framed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Germanic (DU, EN, GE, IC, SW)</td>
<td>3.0 86%</td>
<td></td>
</tr>
<tr>
<td>Slavic (PL, RU, SC)</td>
<td>2.8 76%</td>
<td></td>
</tr>
<tr>
<td>Verb-Framed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Romance (FR, PR, SP)</td>
<td>2.1 30%</td>
<td></td>
</tr>
<tr>
<td>Semitic (HE)</td>
<td>2.0 30%</td>
<td></td>
</tr>
</tbody>
</table>

1.3.4. Culture and narrative style

Language alone, however, is not the only factor to consider in exploring the relations of mind, code, and text. Givón has emphasized the role of another dimension of context in addition to the ongoing discourse situation (Givón 1989: 324):

- The shared (‘generic’) world-view context: Shared knowledge of the physical and cultural universe, as coded in:
  - (i) The (encyclopedic) lexicon:
  - (ii) Shared conventions of behavior and communication.

All of the cultures involved in our analyses are Western, and the narrators are urban and educated. The differences in narrative style seem to be attributable simply to linguistic typology. Note, for example, that Turkish and the Romance languages fall into one group, contrasting with the Germanic and Slavic languages; additionally, in ongoing analyses, we are finding that Hebrew and Japanese pattern with the other V-languages with regard to many of the dimensions considered here. This is certainly not a cultural division. However, David Wilkins (1996) has clearly demonstrated that cultural factors can add another significant dimension to the role of motion descriptions in narrative. Wilkins works with the Arrernte of Central Australia, a society which has a pervasive cultural and linguistic interest in motion and orientation. He proposes:

- The special Arrernte concern for motion and orientation will manifest itself even in elicited narratives, and as a consequence of this the structuring of motion events in Arrernte will be both qualitatively and quantitatively different from that of English. For example, Arrernte speakers should deploy spatial language to construct more elaborated paths and journeys than English speakers.

Wilkins finds that even though Arrernte is a V-language, speakers analyze this particular event in the frog story in much more detail than any of our narrators. Arrernte adult narratives describe this scene using 6–9 path segments out of a potential 14 segments reported by one or another Arrernte narrator. Wilkins presents a convincing case for a cultural hypothesis that goes beyond the linguistic typology presented here.
The Aarrernite data show that it is not a simple matter of verb-framed vs. satellite-framed typology which predicts whether speakers rhetorically code journeys with more or fewer path segments. In fact, I would predict that speakers of Central Australian desert languages would behave essentially the same way, independent of language type, due to areal cultural factors.

It is likely, then, that cultural factors can modify the proposals presented here. However, for present purposes, we will continue to explore available written texts, searching for patterns of language use that seem to be based on the typology of lexicalized patterns.

1.3.5. Scene-setting and context
Thus far we have attended to individual verbs of motion and associated elements. But texts are, by definition, extended and connected. Returning to our Western data, we can ask whether V-language narrators organize larger stretches of discourse in ways that might give information about the movements of protagonists. A description of the setting in which motion occurs makes it possible to picture the path of motion without spelling out each of components in separate verbs.

Proposal: Speakers of V-languages are more likely to devote attention to describing aspects of the static scene which provides the physical context for a motion event.

The elicited narrative data provide clear support for this proposal. For example, the following descriptions of the event described in (13) are representative of scene-setting in V-languages:

(14) a. **Spanish oral narrative:** Se acerca hacia un barranco, por debajo del cual corre un río. Le da un empujón y le tira. Y el perro también se cae con él. Claro que el niño se quedó sentado en el centro del río.

   ‘[The deer] approaches a ravine, below which there flows a river. He gives him a push and he throws him. And the dog also falls with him. Of course, the boy ended up seated in the middle of the river.’

In this account, we are told that the deer ‘gives him a push’ and that the dog ‘also falls’ and the boy ends up ‘seated in the middle of the river’. We can infer that the trajectory went from some elevated place to the river because of the description of the scene: ‘a ravine below which there flows a river’. In comparison with S-language narratives, the Spanish texts have an abundance of such static descriptions of settings, suggesting a different allocation of attention between description of movement and description of states. This pattern is found in all of the V-languages in our sample — but hardly ever in the S-languages. Here are some additional examples:

(14) b. **French oral narrative:** Et il le projette dans la rivière, qui se trouve en contrebas. Le petit garçon et le chien tombent dans la rivière. ‘And he throws him in the river that is found below on the other side. The little boy and the dog fall in the river.’

(14) c. **Turkish oral narrative:** Geyikla uçurumun kenarına doğru gidiyor. Köpek de yanlarında kıyıyor. Çocukla aşağıya anyor, köpek de düşüyor aşağıya. Uçurumun dibinde bir göl varmış. Gele düşüyorlar.

   ‘With the deer (he) goes straight to the edge of the cliff. The dog runs by their side. (He) throws the boy down, and the dog falls down too. At the bottom of the cliff there was a lake. (They) fell to the lake.’

(14) d. **Hebrew oral narrative:** Ve ha'ayil rivhal, ve ha hiteil larut. Ve ha'kelev rats axarav, ve ha higla lemacok the mitaxat haya bitta, ve ha atsar, ve ha yeder ve ha'kelev nafta labita beyaxad.

   ‘And the deer was startled, and he began to run. And the dog ran after him, and he reached a cliff that had a swamp underneath, and he stopped, and and the boy and the dog fell to the swamp together.’

Comparing the two types of languages in the sample reported above, we have found that 21% of the adult speakers of V-languages provide static scene-setting of this sort, in contrast to only 8% of the adult speakers of S-languages. In fact, there are no instances at all in Dutch, German, English, Polish, or Russian. By contrast, there are instances in all of the V-languages.

The dominant pattern in S-languages is an elaboration of path components, most typically compacting several components into particles and prepositional phrases, as in (13), or in the following examples:

(15) a. **English oral narrative:** And he starts running. And he tips him off over a cliff into the water. And he lands.

(15) b. **German oral narrative:** Der Hirsch nahm den Jungen auf sein Geweiht und schmiß ihn den Abhang hinunter genau ins Wasser.
(16) a. Spanish original: Entonces abrió la ventana y salió, cayendo sobre las matas de hortensias... (Allende 1982: 140)
   "Then (she) opened the window and jumped, falling above/upon the hydrangea bushes..."

(16) b. English translation (emphasis added): Then she opened the window and jumped out, falling into the hydrangea bushes...
   (Allende 1985: 156)

1.3.6. Static versus dynamic description

Scene-setting is a form of static description. There is suggestive evidence that V-languages which are as culturally different as Spanish and Japanese show a predilection for such description, perhaps partly determined by their linguistic typology.

One interesting pattern is to predicate inherent directionality of a noun that means ‘path’ rather than to predicate dynamic translational movement of a protagonist. In the following excerpt from a Spanish novel, it is evident that if the protagonist ‘began to walk along a path that led to the town’ he himself must have walked to the town:

(17) Spanish: Tomó sus maletas y echó a andar por el barrial y las piedras de un sendero que conducía al pueblo. (Allende 1982: 49)
   ‘He picked up his suitcases and started to walk through the mud and stones of a path that led to the town.’

The same pattern occurs repeatedly in translations from English into Spanish. The following S-language construction allows the protagonist to go down the path — through the woods — to the beach. The V-language translation, by contrast, uses a relative clause to describe a path that ‘traverses the woods’ and ‘descends to the beach’.

(18) a. English original: Then I, too, went down the steep twisting path through the dark woods to the beach below.
   (du Maurier 1938: 323)

(18) b. Spanish translation: También yo tomé entonces el pendiente y tortuoso sendero que, atravesando la arboleda oscura, bajaba a la playa... (du Maurier 1959: 338)
   "Then I, too, took the steep and twisting path that, traversing the dark woods, descended to the beach..."

Ohara (1995) has noted similar patterns in translations from English into Japanese. In the following example, the original S-language description has the protagonist step out of the lane into the backyard. The translation into Japanese, a V-language, describes a sort of temporal/spatial change of state of the lane.

(19) a. English original: With this Mrs. Rachel stepped out of the lane into the backyard of Green Gables. (Montgomery 1908)

   this say-finished time LOC TOP lane TOP end-TE Green Gables GEN backyard GOAL COME-ASP-PAST
   ‘When (she) finished saying this the lane ended, and (she) was in the backyard of Green Gables as a result of coming.’

More broadly, Ohara proposes a general Japanese preference for static descriptions. She offers the following example:

(20) a. English original: Finally he returned to the pawnbroker’s, and, having thumped vigorously upon the pavement ..., he went up to the door... (Doyle 1892)

(20) b. Japanese translation: sosite saigo ni, siiya no mae no sikiisi o tonton to tuyoku ... tataite kara, doo o tataite ...
   (Doyle 1953: 71)
   then finally pawnbroker GEN front GEN pavement ACC MANNER-QUOTE vigorously hit-TE after door ACC hit-TE
   ‘Finally (he) vigorously thumped upon the pavement in front of the pawnbroker’s ..., and (he) knocked on the door, and ...’

Ohara provides an insightful discussion of this contrast (p. 12):
complex in a V-language. If the path does not cross a boundary, the main verb can be a manner verb, as in an S-language. In the Spanish examples in (4) and (7b), for example, caminar ‘walk’ is used to move the protagonist ‘from’ one place ‘to’ another. When a boundary is crossed, however, the main verb is pre-empted for boundary crossing. In order to move a protagonist across a street in a particular manner, for example, one would have to subordinate a manner expression to a main verb of boundary crossing: ‘to cross running / in a jump’ and the like. This option has serious narrative consequences: it foregrounds manner of movement by addition of a special expression and, at the same time, it slows down the pace of narration. In addition, as we have seen in example (1), it is difficult in a V-language to describe manner that has its scope across several segments of a path (run out the kitchen door; past the animal pens, towards Jason’s house). Because of these factors, the expression of manner of movement has a distinctly different status in the content and organization of narrative in the two types of language.

2.1. Association of manner with ground

One consequence for V-language narration, as already noted with regard to example (16), is a reliance on inference from context as opposed to the direct expressions favored in S-languages. In (16) it was sufficient for the Spanish-speaking novelist to say that the protagonist ‘opened the window and jumped’, thus avoiding the use of a manner verb in a construction with a boundary-crossing phrase. Here we return to the expression of grounds of movement, and find that constraints on the use of manner verbs play a role.

Proposal: In texts in V-languages, in comparison with S-languages, a greater proportion of clauses expressing manner of movement will consist of manner verbs alone, without phrases expressing the ground(s) of movement.

This is an additional typological factor influencing the pattern proposed in 1.2. Not only does the boundary-crossing constraint tend to limit the number of grounds that are expressed in association with individual verbs in V-languages, but the interaction of this constraint with the expression of manner contributes to a tendency to use “bare” verbs, with no associated ground elements at all.

Although I have not yet done the necessary counts, it is my impression that this proposal holds up in comparing the V- and S-languages texts considered here. There is certainly evidence in the Hobbit translations for elimination of reference to ground in the presence of manner verbs. For example, at a critical moment a dwarf, Dori, escapes into a tree to escape from wolves. We know that...
the dwarves are seeking refuge in trees, and Tolkien tells us that Dori waited to help Bilbo, and then:

(21) a. English original: ... he jumped for the branches himself ...

Some of the V-languages follow suit, since this is not a boundary-crossing event. For example:

(21) b. Portuguese translation: ... ele mesmo saltou para os galhos.
   'he himself jumped for the branches.'

Some other V-languages, however, are content to simply describe the jump, leaving it to context to fill in the rest; for example:

(21) c. Spanish translation: Esperó ..., y luego saltó.
   '(He) waited ..., and then jumped.'
(21) d. Hebrew translation: hu xika ... ve-rak az hu'acmo kafac le-ma'la.
   'he waited ... and only then he himself jumped up.'

Note that the effect of this proposal is, once again, to increase reliance on inference from context in V-language narratives — not only scene-setting, but also antecedent events.

2.2. The contexts of manner expressions

In an S-language, where the main verb is free to express manner in all simple clauses — whether or not a boundary-crossing is involved — the use of a manner verb per se does not make manner salient. It is normal, for example, to say things like the bird flew in through the open door. Indeed, the absence of a manner verb carries information, in that it violates a neutral expectation. If I tell you that the bird came in through the open door you might wonder if it entered in some noncanonical fashion — perhaps on foot. In a V-language, by contrast, the default motion description is to use a neutral verb. In fact, in some such languages it is distinctly odd to speak of a bird as 'flying', rather than simply 'coming' or 'going'. Braun (1976: 390), for example, comments that it is usual, in French, to say L'oiseau est entré par la fenêtre 'The bird entered through the window' and Le serpent a traversé le trottoir 'The snake crossed the sidewalk' — whereas in English we would more likely use the verb-satellite constructions flew in and crawled across. He notes: 'It is assumed that the bird flew and that the serpent crawled. Of course, if the bird hopped through the window, the French would say: L'oiseau est entré par la fenêtre en sautant ['the bird entered through the window in hopping']. Thus, once again, V-languages seem to rely more on context — in this instance with regard to inferring manner of movement.

This contrast has often been noted. A penetrating discussion was provided in 1944 by Maublanc in a comparative stylistics of French and German — with a subtitle that well fits our quest a half-century later: Essai de représentation linguistique comparée. In one section, he compares the French verb passer 'pass, cross' with "une vaste série de verbes images allemands." Like English, German provides verb-satellite constructions equivalent to drive past, fly across, sail along, and the like. In comparing the two languages (and, we would add, the two language types), Maublanc notes (p. 14):

Pauvre en miracle, un seul petit verbe signe 'passer' peut correspondre à une cinquantaine de verbes allemands. C'est que 'passer' nuance ou change son sens selon les autres mots auxquels il est associé. Très souvent, en français, les vocables n'ont leur valeur précise que par leur contexte, tandis qu'en allemand les mots portent bien davantage en eux-mêmes leur signification.

These circumstances have strong implications for the occurrence of manner verbs in the two types of languages. In a V-language, manner expressions are, as it were, doubly marked: semantically, they indicate that manner is salient; and in terms of material substance, when combined with a path verb, they are heavier expressions than the corresponding constructions with finite main verbs in S-languages (cf. run in versus entrar corriendo 'enter running').

Proposal: When a V-language narrator is faced with an event which involves both translational motion and manner, manner will be expressed only if it is exceptional; otherwise, translational motion takes precedence.

One obvious consequence of this proposal is that manner verbs will be relatively less frequent in V-language texts. This is well substantiated by all of the texts in the sample. The V-languages abound with verbs meaning 'come', 'go', 'enter', 'exit', and the like — that is, basic path verbs, with only occasional uses of manner verbs.

The hobbit translations provide clear examples of the choice between manner and direction. For example, just prior to the episode related in (21), Tolkien reports that Dori climbed out of the tree — a combination of manner (climb) plus direction (out of). All of the S-languages keep both types of information in their translations: Dutch, German, and Russian use versions of 'climb' plus 'out' or 'down from'. By contrast, a verb that simply means 'descend' is used by all of the V-languages: French, Italian, Portuguese, Spanish, and Hebrew. In every case, it is known that Dori has descended from a tree, and directionality apparently takes precedence over an extended description of the obvious manner of descent.
2.3. The salience of manner

Given these facts, a relatively "neutral" manner verb in a V-language conveys a more salient message than its apparent translation equivalent in an S-language. In order to foreground manner in an S-language, therefore, it is necessary to "up the ante" and use a more expressive verb. Accordingly, one would expect to find differences in lexical stock in comparing the two types of languages:

Proposal: S-languages will have a larger and more diverse lexicon of manner verbs, in comparison with V-languages.

This fact was already noted by Malibran in comparing German with French, and it holds up for all of the languages in our sample. The Germanic and Slavic languages have a vast collection of such verbs, most of them untranslatable into the much smaller lexicon of V-languages. Consider, for example, a few Spanish manner verbs and their English equivalents. Notice how general in meaning the Spanish verbs are, in comparison with the set of translations as given by Collins dictionary, with 250,000 entries:

- destizarse = creep, glide, slide, slip, slither
- escabullirse = scurry off, scuttle away/off, slip away
- saltar = bound, dive, hop, jump, leap, spring
- tropezar = stumble, trip, stumble

(The picture is essentially the same if one starts with English and searches for Spanish equivalents. Only two more Spanish verbs appear: brincar, which is a near synonym of saltar, and escalar, with the English equivalents slip/glide away — thus partly overlapping with the meanings of deslizarse and escabullirse. In all, 6 Spanish verbs correspond to 15 English verbs.)

Another way to evaluate this proposal is to list the manner verbs in Chapter 6 of The Hobbit and its translations. In the original English there are 25 types of verbs expressing manner of self-movement, most of them occurring with more than one satellite: clamber, climb, crawl, creep, fall, flee, fly, jump, leap, limp, march, push (through), roll, run, rush, scatter, scramble, scuttle, slide, step, swarm, sweep, swing, swoop, trot. The other S-languages — Dutch, German, and Russian — have an average of 22 types, while the four Romance languages have an average of 16.

It should be noted, however, that this variation is not entirely consistent. In some cases, the English verb is simply not translated, as in the case of "swoop" in The Hobbit. In other cases, the English verb is translated with a more general verb, as in "climb" in The Hobbit.

The distinction between the language types can be seen, again, with regard to the tree episode. All of the languages have manner verbs for ascent into trees (whereas descent from trees, as indicated above, presents a more problematic combination of direction and manner). In this episode, the dwarves flee into the trees to save themselves — that is, an extreme manner of ascent is involved. The Germanic and Slavic vocabularies provide various everyday versions of 'climb' which mean only to move oneself in a sort of four-limbed, clutching manner — in any direction (in English we can climb down from a tree just as well as climb up into it, for example). The default verb for going up into trees is 'climb' — that is, it would be odd to say they went up into the trees or they ascended the trees. Therefore this episode calls for a more dramatic manner verb. Tolkien uses scramble (up), and the other S-languages follow suit: German (hinauf)-krabbeln, Dutch (omhoog)-klauteren, and Russian (вы)-karabkat'sya. The V-languages, however, simply use their "neutral" 'climb' verb (which is, in every case, restricted to vertical movement in a special manner): French grimper, Italian arrampicarsi, Spanish trepar, Hebrew le-tapes. And the Portuguese translation omits manner entirely, simply using subir 'ascend'.

Contrasts such as these demonstrate that the comparative lexica differ in another way. Languages seem to have a "two-tiered" lexicon of manner verbs: the neutral, everyday verbs — like walk and fly and climb, and the more expressive or exceptional verbs — like dash and swoop and scramble. In S-languages, the second tier is extensive and elaborated, making distinctions that do not play a role in the considerably smaller second tiers in V-languages.

These facts pose particular problems to translators — in both directions. In an earlier study of translations between English and Spanish, I found that only 51% of English manner verbs were translated into Spanish manner verbs (Slobin 1996a). The other half were either neutralized or omitted, as in examples (1), (8), (9), and the tree-climbing translations discussed above. By contrast, translators who move into an S-language like English or Dutch often replace a plain path verb with a first-tier manner verb, apparently in order to save the text from sounding bare and academic. The following Dutch translation of French is typical:
3. Consequences of Typology for Language Acquisition

In learning a language of a particular type, the child is trained to “think for speaking” in terms of the distinctions that are codified in the lexicon and grammar of the language (Slobin 1991, 1996a; Berman and Slobin 1994, Chapter Va). The world or the human perceptual system do not naturally present the categories of motor patterns which English codes as creep, crawl, slither, scuttle, scramble, scurry, and the like — as anyone learning English as a second language will attest to. Nor is there anything outside of the experience of growing up in an S-language or a V-language environment that tells the child that boundary-crossing is or is not grammatically significant or that the preferred lexical system for talking about translational motion is to be found in verbs or satellites. All of this comes, of course, from linguistic interchange with members of the speech community.

We have almost no data on how parents and small children converse about motion in different types of languages. In a preliminary study at Berkeley, Shira May, Rosanna Mucetti, Gail Solomon, and I have begun to code transcripts of naturalistic adult-child conversations in English and Spanish, in the age-range of 2 to 3 years. The English data are from the US and the Spanish data from Spain; the families are college-educated professional. It is too early to report systematic findings, but the overall impression of the two language samples suggests that the contrasts between S- and V-languages at the level of adult narrative are present in these early home contexts as well. For example, the following are typical of English-language interactions between parents and a child who has just turned 2. Note the use of directional satellites and prepositional phrases encoding ground elements.

(24) English-speaking parents and 2-year-old:

Father: *Not on the floor, honey. Put it up on the table.*
Child: *Gonna put it on my floor?*
Father: *No, honey, put it up on the table.*
Child: *Table up?*
Father: *Yes, up on the table.*
Mother: *Be careful — you’ll fall right off the bed, on your head.*
Child: *Georgie's going under there.*
Mother: *What are you doing?*
Child: *I’m climbing up.*
A sample of 783 tokens of motion verbs used by parents and child includes the following verbs of manner of self-motion: crawl, creep, dance, dive, fly, hop, jump, ride, run, ski, skip, slide, slip, speed, swim, tumble, walk.

The Spanish sample is strikingly different. Almost all of the motion verbs occur without mention of grounds, except for reminiscences of past events and planning of future outings, presumably because those grounds are not physically present. In context, locations are often simply referred to with deictic expressions. Directional adverbs are used along with verbs, but generally with no mention of source or goal. For example:

(25) Spanish-speaking parents and 2-year-old:

Father: *Ven, sube arriba.* (‘Come, ascend up.’)
Child: *No, abajo.* (‘No down’)
Father: *Abajo, pero vamos a bañarnos primero, y luego vamos abajo.* (‘Down, but we’re going to bathe ourselves first, and then we go down.’)
Father: *Déjalo ahí encima hasta que termines de desayunar.*
Mother: *(¿Quiere salir de ahí?)* (‘Do you want to exit from there?’)
Mother: *(¿Quiere salir de ahí?)* (‘Do you want to exit from there?’)
Child: *Aquí no se pueden guardar porque se caen.* (‘They can’t be kept here because they fall.’)
*Me voy a subir aquí.* (‘I’m going to ascend here.’)

A sample of 1,284 tokens of motion verbs used by parents and child includes a small number of “first-tier” verbs of manner of self-motion: andar ‘walk’, bailar ‘dance’, caer(se) ‘fall’, correr ‘run’, escapar(se) ‘escape’, montar ‘mount’, ride’, nadar ‘swim’, saltar ‘jump’. Clearly, the Spanish-speaking child is not being called upon to distinguish manners of motion of the S-language variety, nor to encode path-ground relations that are physically evident in context.

4. Conclusion

In sum, there is a great deal of suggestive evidence that lexicalization patterns lead speakers to describe motion events in typologically distinct ways. As a result, it is possible to characterize the narrative style that seems to emerge from the use of a particular type of language. The linguistic facts are the following:

- more ground elements per verb;
- more path elements per trajectory of extended motion;
- more frequent and more differentiated expression of manner of movement;
- less scene-setting (descriptions of physical locations, terrain, etc.).

Much more work needs to be done with regard to all of these suggestions, using tools of both crosslinguistic and psycholinguistic investigation. As more data are gathered for the proposals offered here, we will better understand the complex interplay between lexicon and syntax in characterizing styles of language use in terms of linguistic typology. These preliminary speculations are offered to Talmy Givón in the spirit of his quest for mind, code, and context.

Notes

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- The research group has included a number of students and colleagues, too numerous to list here. The current analyst is the result of collaboration in the 1995–96 academic year with Heike Behrens, Lucinda Camodeca, Jane Edwards, Romi Henkin, Reyna Lindquist, and Sarah Taub.
- These findings are preliminary, so exact statistics are not presented here. A systematic comparison of 100 motion events in each of two languages, English and Spanish, can be found in Slobin (1996b). The patterns discussed here come from examination of several hundred verbs drawn from literary texts in the following languages: Satellite-framed: English (Anaya 1972; Bercoff 1914; Doyle 1892 [cited by Kyoko Hirose Oghara]; du Maurier 1938; Fowler 1969; Hemingway 1941; Lessing 1952; London 1956; Miehner 1978; Montgomery 1908 [cited by Kyoko Hirose Oghara]; Tolkien 1997 [cited by Berkeley research group]); German (Grass 19; Lenz 19); Dutch (Muller 18); Russian (Aksenov 196; Dolostovskiy 18; Corky 19); Verb-framed: French (Gontier 1994 [cited by Eve Clark]; Sand 1833; Théroulde 1981); Spanish (Allende 1982; Cela 19; Lynch 19; Donoso 1983; García Márquez 1967; Murena 19; Pérez Galán 1982; Quiroga 19; Sabato 1988; Vargas Llosa 1977); Turkish (Bayar 1992; Fırat 1974; Kemal 1979; Livaneli 1979; Panuk 1990); Japanese (Murakami 1991; Yoshimoto 1988 [both cited by Kyoko Hirose Oghara]).
3. The research was carried out as a workshop supported by the National Science Foundation, held at the Linguistic Institute of the Linguistic Society of America at the University of New Mexico, Albuquerque, July 1995. Participants involved in the data analysis were: Jeroen Aartsen, Ayhan Aksoy, Michael Bamberg, Edith Bavin, Ruth Berman, Petra Bos, Nancy Budwig, Harriett Jisa, Catalina Johnson Herrera, Sophie Kern, Åsa Nordqvist, Barbara Pearson, Hrefhildur Ragnarsson, Judy Reilly, Svenka Savid, Magdalena Smoczyńska, Anat Stavans, Sabine Stoll, Sven Strömqvist, Ludo Verhoeven.

4. Japanese follows a different pattern, with a large collection of "imetics" — but that goes beyond the scope of this chapter.

5. Hebrew appears to be an outlier, for reasons which may be peculiar to the translation of this particular chapter. There is much movement of eagles, and the book was translated into Hebrew by members of the Israeli airforce. Therefore there are specialized terms, such as casar ‘parachute’, hinei ‘take off’, nazak ‘take off’ — nazak ‘land’, which may not be representative of the use of manner verbs across the board in Hebrew. The translation of this chapter has 25 types of manner verbs, of which 4 or 5 may be such specialized terms. In general, however, it seems that Hebrew — and also Turkish — conform to the proposal that Vi-languages have smaller lexica of manner verbs.

6. In pilot studies of mental imagery, English- and Spanish-speaking subjects have been asked to read translationally equivalent passages from novels. Preliminary findings suggest that English-speakers experience more frequent and more vivid images of manner of motion than do Spanish-speakers reading texts such as (17), which do not contain second-tier verbs of manner. That is, most Spanish speakers who have been tested report no mental imagery of manner of motion after reading extended passages with descriptions such as 'sprinted through the mud and stones of a path,' whereas most English speakers report mental images corresponding to verbs such as trudge along, stumble over, slush through.

References


Literary works

Aksenov, V. 1966. Apel'sinyi Marokko. [electronic text]


Burroughs, E. R. 1914. The mucker. [electronic text]