

Rethinking ‘Thinking for Speaking’

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Rethinking 'Thinking for Speaking'¹

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0. Introduction

This paper makes use of Slobin's *Thinking for Speaking* theory (e.g. 1996a, 1996b, 1997, 2000, 2003b) as a stepping stone into the exploration of language and thought. It focuses on the linguistic realisation and on the cognitive conceptualisation of motion events. The present study suggests a different methodology of investigation, whereby in two separate experiments the stimuli and responses are cognitive only (Experiment 1) and linguistic as well as cognitive (Experiment 2). On the basis of results obtained with sixty-four native English speakers and seventy-five native French speakers, it questions the claims in Slobin's work regarding the differential salience of the dimensions of Path and Manner in the conceptualisation of motion events by speakers of different language types. Indeed the present results indicate that both English and French speakers showed an overall preference for Path in the required tasks.

1. Motion events

The morphosyntactic realisation of motion events differs across the world's languages in three main ways. These differences are caused by differential conflation patterns of the various dimensions of a motion in language. Talmy (1985) famously identified these dimensions as comprising of the Figure, the Ground, the Path, and the Manner of the motion. He further suggested a dual linguistic typology, whereby languages may be classed as being verb-framed if they typically conflate Path in the verb (e.g. Romance, Polynesian and Semitic languages), or satellite-framed if they conflate Path in a verb particle, or complement (e.g. non-Romance Indo-European languages).

Slobin (2003a) suggested a third equipollently-framed category corresponding to serial-verb languages, which conflate both Path and Manner in several verbs at once (e.g. Algonquian, Athabaskan, Hokan, Klamath-Takelman). Slobin (in

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press), however, later suggests considering ‘a cline of Manner salience’ and allocating languages along a continuum going from Path-salient languages to Manner-salient languages. Whichever theoretical approach may prove more convenient, the point here is that different languages demonstrate clear tendencies for favouring the allocation of one particular dimension of motion to one particular grammatical category, so that eventually, elements that are centrally expressed in the main verb in satellite-framed languages are found to be perfectly dispensable in verb-framed languages, for instance. Consider English and French in (1) and (2) below,

- (1) The bird flew out of its cage.
 [Figure] [Manner] [Path] [Ground]
- (2) L’oiseau est sorti de sa cage.
 [Figure] [Path] [Ground]
 The bird exited its cage.

In contrast to English, Romance languages are indeed what Slobin (in press) terms low-manner-salient languages, to the extent that these languages often do not express the concept of Manner of motion in language, unless it is relevant somehow to the semantic load.

2. Thinking for Speaking

Based on the above considerations regarding the domain of motion in linguistic expression, Slobin (e.g. 1996a, 1996b, 1997, 2000, 2003b) has put forward a neo-Whorfian reformulation of linguistic relativity. In this new approach, Slobin (1996a: 76) does not propose to examine “whatever effects grammar may or may not have outside of the act of speaking”, i.e. non-linguistic thought; but, rather, he offers a new approach whereby

the expression of experience in linguistic terms constitutes **thinking for speaking** – a special form of thought that is mobilised for communication. (ibid.)

His intention was thus to examine linguistic cognition, for which he gathered linguistic data from elicited narratives, natural discourse, creative fiction, translation work, and more, across a spectrum of subjects of different ages and linguistic backgrounds. These data confirmed Slobin’s hypothesis that “in acquiring a native language, the child learns particular ways of thinking for speaking” (ibid.). Note however that no cognitive data is considered at any point.

Slobin’s research illustrates how speakers of different languages are predisposed to attend to certain aspects of experience due to obligatory categories in grammar, but it does not address the question of the cognitive implications resulting from the use of particular languages. Rather, it points to correlates between grammar and thought. Yet even this much may be doubted since, as

Slobin points out, there is “nothing in the pictures themselves that leads English speakers to verbally express whether an event is in progress” (1996a: 88). But there definitely *is* something in the language they use that leads them to verbally express that an event is in progress, for instance. This something is precisely the lexicalisation patterns mentioned above, which speakers *must* follow in speech. This does not prove that speakers of different languages are more sensitive or pay more attention to certain aspects of the same reality than to other aspects (see Gennari et al. 2002: 55 for a similar evaluation).

In other words, Slobin’s conclusions are circular from a psychological and relativistic perspective – even in the event that linguistic cognition is the object of investigation. The difficulty stems from his departing from a non-linguistic stimulus to arrive at a linguistic result – which was predictable – and from there to deduce (non-linguistic) patterns of habitual thinking. Overall, Slobin has demonstrated that speakers have to think about language itself in order to speak. This thinking becomes systematised to a certain degree in the process of language acquisition and use, and varies cross-linguistically according to specific grammars. In sum, Slobin showed *how* a specific language asks its users to highlight Path or Manner according to their native input. This does not by any means posit any cognitive consequences, and as such does not provide evidence for linguistic relativity. If the relativist’s purpose is indeed to show that different languages and different fashions of speaking engender different ways of thinking, then their likely evidence ought to consist of those very ways of thinking (Lucy 1992). Observing linguistic behaviour merely helps document linguistic diversity, not cognitive divergences.

3. Motion conceptualisation

The question under debate is thus whether speakers of different languages conceptualise motion in terms of either Manner, or Path – or both – because of the restrictions imposed by their native language; or, in Slobin’s words, do we obtain “divergent mental worlds for speakers of the two language types” (2000: 133), i.e. satellite- and verb-framed?

It seems essential to complement Slobin’s extensive corpus data with some cognitive data speaking to the same issue. The present research therefore tested English and French native speakers on cognitive visualisation tasks. Two separate experiments were implemented. In the first one, subjects were asked to judge mute visual stimuli (video clips) in terms of similarity, e.g.

- (3) a. a man running up a hill
- b. a man running down a hill
- c. a man walking up a hill

The test comprised fifteen such triads, with differing Manner and Path types, always organised so that two distinct pairs would correspond to Path similarity (e.g. 3a and 3c above) and to Manner similarity (e.g. 3a and 3b). Subjects were

asked to identify the pair displaying more perceived similarity. In the second experiment, a second unrelated sample of subjects provided written linguistic descriptions of these stimuli prior to performing the similarity judgements.

It was expected that more Path associations would be found in the French sample of results overall, since Manner is a dispensable concept, linguistically. Whorfian relativism would also predict that this difference would be present in the first experiment. And, according to Thinking for Speaking, we should expect stressed differences in performance between experimental formats, since Experiment 2 involves explicit language.

4. Experimental results

4.1. Item analysis

All the results display a clear preference for Path associations (see Table 1).²

Table 1. Proportions of association types in Experiments 1 and 2.

		Manner associations	Path associations
Experiment 1	English (N=34)	37%	59%
	French (N=35)	37%	56%
Experiment 2	English (N=30)	44%	52%
	French (N=40)	42%	51%

From the above, it appears that results do not differ according to the native language of the subjects, but rather according to the nature of the task. Indeed, the preference for Path associations is less marked in the second experiment, that is, when linguistic descriptions are required prior to the similarity judgements. This may reflect an influence of explicit language on performance, as Thinking for Speaking would have predicted, though it is not quite clear how, as the direction of the data is the same for the two language groups.

Another possible explanation for the present state of affairs is that subjects in Test 2 were presented with a more complex task than subjects in Test 1; they may therefore have paid attention to more elements in the motion scenes, or they may simply have been distracted by the extra task. In brief, the more controlled and the more complex the task, the less spontaneous and realistic the answers. It may be then that the present differences reflect task complexity issues rather than anything else.

4.2. Subject analysis

Subjects displayed dominance patterns in their association choices concordant with the item analysis (see Table 2).³

² Note however that these differences are not statistically significant. The discussion therefore focuses on preferential patterns.

³ Dominance patterns were established on the basis of at least two differential associations, e.g. 6 Manner associations and 9 Path associations would indicate a Path dominance.

Table 2. Dominance patterns in Groups 1 and 2.

		Manner dominance	Path dominance	No dominance
Group 1	English (N=34)	12%	67%	21%
	French (N=35)	14%	66%	20%
Group 2	English (N=30)	33%	47%	20%
	French (N=40)	25%	50%	25%

Again, the figures indicate a striking correlation between responses and experimental format, rather than between responses and linguistic motion typologies.

Individuals' knowledge of languages other than their native tongue was also monitored for potential linguistic effects. Both language groups provided monolingual speakers, bilingual speakers, and speakers with non-fluent knowledge of other languages.⁴ There appeared however to be no consistent correlation between individuals' performance and their knowledge of languages of the opposite typological category. The nature of the task remains therefore the obvious factor responsible for the divergence in the above dominance patterns.

4.3. Linguistic analysis

Linguistically, both the French and the English Group 2 confirmed the typological framework drawn by Talmy, and the findings made by Slobin (see Table 3).

Table 3. Motion elements conflated in the verbs used in Group 2's descriptions.

	Manner in verb	Path in verb
English Group 2	85%	15%
French Group 2	33%	65%

These figures offer support to Slobin's idea of a cline of dimensional salience, as neither language groups conforms to Talmy's categories in the absolute. Indeed, it is perfectly acceptable to conflate Path in the English verb without any mention of Manner in the remaining of the sentence, e.g.

- (4) A man opens the door.

Likewise, French allows for Manner verb constructions without Path cues, e.g.

- (5) Un homme court.
A man is running.

In fact, French appears to be rather flexible in its treatment of motion expression. The figures in Table 3 are indicative of this, as only 65% of the descriptions provided seem to conform to typological predictions. It is important nonetheless

⁴ Note that only the languages belonging to the opposite typological pattern were of interest here.

to recall that the present data was elicited in highly controlled lab conditions, and are not reflective of natural discourse practices (see Slobin in press for a more thorough investigation of natural data). However the present data illustrates the linguistic patterns available to native speakers for expressing motion, and these are more numerous and complex than Talmy's clean typology seems to suggest. Not only can French speakers conflate Manner in the verb without elaboration on Path information, as in (5), but they can also produce verb-framed reverse patterns, whereby Manner is conflated in the verb and Path is encoded in an adjunct, such as a gerund, e.g.

- (6) Un homme court en traversant la rue.
 A man runs crossing the road.
A man is running across the road.

This pattern was reproduced in several instances, and often even generated odd constructions, e.g.

- (7) Un homme pédale à vélo en montant.
 A man pedals on his bike going up.
A man is cycling up (the road).

These sentences may be a mere reflection of the experimental conditions, though their formal format would have predicted otherwise. They may also suggest a process of latent change as has been witnessed with Latin for instance (Slobin 2003a). Or they may simply indicate a greater flexibility of motion expression than had originally been attributed to French. Overall, these results may be suggestive of a hybrid system, whereby French displays characteristics of both verb- and satellite-framed patterns. Kopecka (2003) also exemplified this possibility with the existence of Path verbal prefixes in French, e.g. *déshabiller* (undress), *survoler* (fly over), *revenir* (come back), *soulever* (lift up), etc. – though it is unclear as yet whether these prefixes may be considered satellites.

For the present purposes, the main interest in examining these descriptions is to assess the parallels between categorisation choices and linguistic categories (see Table 4).

Table 4. Proportions of matches between linguistic elements and associations.

	Verbs	Satellites	Optional constitu- ents	Different constitu- ents	Noun phrases	No parallel
English	38%	46%	8%	1%	0%	7%
French	42%	N/A	28%	6%	1%	26%

An interesting finding here is that association types did not typically parallel similarity in the main verb. In fact, associations fail to match verbal similarity in

62% of cases in the English data and in 58% of cases in the French data. Similar findings have been reported by Papafragou et al. (2002: 210) who noted that "[i]n neither language groups did verb matches correlate with categorisation performance." It is also interesting to note that in a rather substantial number of instances, there was no correlation at all between the linguistic information provided by the subjects and their association choices.

This lack of consistent correlated patterns suggests that language does not have a pervasive influence over associative thinking. It has been suggested that subjects tend to appeal to linguistic categories when prompted to use language in categorisation tasks using non-linguistic stimuli, such as in Experiment 2 (Papafragou et al. 2002: 216), so that language becomes an active tool in problem-solving tasks. Gennari et al. (2002) draw similar conclusions and report findings of linguistic effects in similarity tasks after linguistic encoding concordant with Talmy's typology. The present findings, however, fail to obtain these linguistic effects. Some effects are present but they do not match with the typology, which suggests that language is not the factor biasing performance towards fewer Path associations in Experiment 2. Furthermore, the present experiments show that the use of language as a strategic resource to solve associative tasks is not systematically employed by subjects. Debriefing subjects after the tests confirmed this and indicated a wide variability in individual cognitive approaches.

Finally, the linguistic data was analysed in the light of Talmy's definition of semantic salience (1985: 122), whereby

a semantic element is backgrounded by expression in the main verb or in any closed-class element (including a satellite – hence anywhere in the verb complex). Elsewhere it is foregrounded.

As Table 4 suggests, subjects often 'foregrounded' information relating to motion in optional constituents, e.g.

(8) A man is walking *with a limp*.

According to the above principle, we may expect parallels between the type of foregrounded information and the nature of the corresponding association (see Table 5).

Table 5. Foregrounding and association types in the English data.

	Manner foregrounded	Path foregrounded
Manner association	29	20
Path association	16	9

Overall, Talmy's principle would predict that foregrounded Path information would bias judgements towards a Path association choice. However, as Table 5

clearly illustrates, this pattern does not obtain. Talmy's principle of salience represents a linguistic understanding of salience but by no means does linguistic salience entail cognitive salience, as the present results illustrate.

4.4. Aspect

As highlighted by Aske (1989), among others, there exists two distinct types of Path, namely telic and atelic (or locative) Paths. Telicity entails an end-point or the crossing of a boundary, so that (9) represents a telic type of Path, and (10) an atelic one:

(9) We walked into the room.

(10) We walked along the beach.

In the present stimuli, four triads depicted atelic types of Path, eight triads depicted telic Paths, and another three triads combined the two types. Both language groups displayed a clear correlation between the type of Path and the type of association made, whereby telic stimuli show Path preferences and atelic stimuli show Manner preferences (see Table 6). Conceptually, the fact that telicity entails reaching an end-point may explain the logic behind the relatively greater salience of Path/ Result. And conversely, in atelic scenes, no end-point being reached, the process or Manner may naturally seem a more important dimension of the motion. Another possible explanation resides in the neural structures of the brain (i.e. pre-motor cortex), as it is indeed the same structures that are involved in the processing of complex motion and of aspect in language (Lakoff 2002).

Table 6. Proportion of association types relative to telicity.

		Telic sets		Atelic sets	
		Path	Manner	Path	Manner
Test 1	English (N=34)	67%	33%	43%	57%
	French (N=35)	64%	36%	43%	57%
Test 2	English (N=30)	56%	44%	34%	66%
	French (N=40)	55%	45%	33%	67%

All four experimental groups showed that dimensional salience is relative to aspect. We may therefore infer that there is a definite link between the conceptual salience of either Manner or Path and telicity in motion. This suggests that neither Manner nor Path is more conceptually salient of its own. Rather, the perceived salience of either dimension is dependent on aspectual features of the motion event in question. This also undermines the absolute acceptability of Path as the core schema of motion (see Talmy 1991). Indeed, though Path seems critical in conveying motion semantics, it is not indispensable as such for the expression and the conceptualisation of motion, as sentences such as (5) above illustrate.

5. Conclusion

The findings presented in this paper challenge some of Slobin's early relativistic postulations concerning the relatively higher cognitive salience of Path over Manner to verb-framed language speakers (e.g. 1996: 88, 2000: 133). They show that both English and French speakers favour Path as the most important conceptual element in motion events. This runs counter to the linguistic emphasis on Manner in English and on Path in French, and thus suggests that basic motion conceptualisation is the same for speakers of both language categories. In other words, language does not appear to play any significant role in the perceived salience of dimensional features of motion.

On the other hand, it is important to see that the motion scenes used in the present stimuli contrasted 'absolute', or non-discrete, Manner and Path types, e.g. *walking* vs. *running*, *down* vs. *up*. It is conceivable that linguistic effects may be found when contrasting discrete, or 'fine-grained', Path and Manner types, e.g. different types of *walking* based on force dynamics, speed and the like (see Slobin 2003c). Oh (in progress) is currently obtaining such results in recall tasks on fine-grained Manner distinctions, in which Korean speakers show higher error rates than English speakers. This area may indeed prove more promising for Whorfian effects. The current research therefore presents preliminary results, and by no means pretends to dismiss a relativistic reality.

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