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Cognitive Relativism: Resultative Construction in Chinese*

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Cognitive linguistics is viewed as a modern approach to linguistic relativity and cognitive relativism. Resultative verb compounds in Chinese are analyzed in terms of Talmy's conceptual approach and are shown to present a problem for Talmy's well-known typological dichotomy between "verb-framed" and "satellite-framed" languages. It is also argued that the so-called "resultative complement" in Chinese resultative verb compounds can be treated as the center of predication, even as the main verb. Pending further psycholinguistic evidence, it appears that Chinese speakers attend relatively more to the result of an event, whereas English speakers attend more to the process of an event.

Key words: cognitive linguistics, relativism, conceptual approach, verb semantics, Chinese resultative verb compounds

1. Cognitive linguistics and linguistic relativity

The study of conceptualization of reality in different languages and cultures has been enthusiastically pursued by anthropologists and psychologists, especially in the well-known Boas-Sapir-Whorf tradition. In contrast, American structuralists and generative grammarians have shunned away from the study of language as capable of reflecting conceptualization in different cultures. In retrospect, we can perhaps identify three main reasons for linguists to have taken a very different approach to the study of language. First, psycholinguistic experiments have generally failed to confirm either strong or weak versions of the Sapir-Whorf hypothesis, that is, linguistic determinism or linguistic relativity. For instance, in reference to Chinese grammar, Bloom's (1981) controversial hypothesis regarding the absence of overt counterfactual grammatical

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devices in Chinese and its effect on the thought of native speakers of Chinese have been repeatedly challenged (cf. Wu 1994). Second, American structuralists and generative grammarians have subscribed to Saussure's arbitrariness principle of linguistic signs and believed in the autonomy of syntax. The third reason has to do with the influential view shared by philosophers (e.g., Fodor), linguists (e.g., Chomsky) and cognitive scientists (e.g., Pinker) that language is independent of culture and thought and that the mental representation of language involves only symbols and their operations but not images.

The emergence of cognitive linguistics as developed by Lakoff, Langacker, and Talmy in the last two decades can be viewed as a revival of the interest in the study of conceptualization of reality by language in different cultures. In his very recent work, Talmy (2000b:1-5) has characterized cognitive linguistics as a conceptual approach to the study of language, in contrast with the formal approach adopted in the tradition of generative grammar and the psychological approach as practiced by cognitive psychologists. Furthermore, as pointed by Talmy (ibid.), cognitive linguistics also addresses the concerns of the two other approaches to language; for cognitive linguistics seeks to understand the formal structure of language as patterns of organization of conceptual content in language from the perspective of general cognitive mechanism. In fact, this is also the endeavor of the Boas-Sapir-Whorf tradition, although it places emphasis on cognitive relativity as well as cognitive universality. Therefore, the emergence of cognitive linguistics calls for a new interest in cognitive relativism.

Lakoff (1987:304-337) has devoted a whole chapter to Whorf and relativism. In contrast, Langacker (1987, 1991) has not explicitly addressed the issue of linguistic relativity in his seminal works on the foundations of cognitive linguistics. However, the attempt to restate the Boasian conceptual approach to language seems to be very clear in Langacker's view of language structure. Thus, according to Langacker, "if one language says *I am cold,* a second *I have cold*, and a third *It is cold to me,* these expressions differ semantically even though they refer to the same experience, for they employ different images to structure the same basic conceptual content" (1987:47). He thus claimed (ibid.) that "meaning is language-specific to a considerable extent" and that "full universality of semantic structure cannot be presumed even on the assumption that human cognitive ability and experience are quite comparable across cultures." In short, it appears that the impact of cognitive linguistics can be made stronger in the context of linguistic relativism and that cognitive linguistics can serve as a modern approach to linguistic relativity.

2. Relativism and construction of Chinese grammar

As pointed out by Lakoff (1987:306-337), there are many different views of what relativism is. For the present purpose, I shall not attempt to define my own version in answering to the host of questions which Lakoff has put for distinguishing different varieties of relativism. Instead, I shall take a naïve relativist position to start with. That position is no different from the original Boasian approach which aims to describe the grammars of non-Indo-European languages in their own terms rather than in terms of the meta-language developed from the structure of Indo-European languages. The Boasian approach should be greatly appreciated in the analysis of Chinese grammar. For one reason, there is no indigenous Chinese grammar. The only two indigenous Chinese grammatical concepts are 'full words' and 'empty words' developed from the study of classical Chinese. For another reason, research on Chinese grammar since *Mashi Wentong* in 1898 has invariably been based on grammatical theories derived from studies of Indo-European languages. Chinese grammarians have relied heavily on English translations and on grammatical theories of English to analyze Chinese. It is not at all surprising that the result of the objectivist approach based on truth-conditional semantics supports the main theme of generative grammar that languages are largely no different from each other in structuring principles. There is perhaps nothing wrong with using translation as a heuristic device to analyze Chinese or any non-Indo-European language that does not have its own indigenous grammar. However, this kind of objective approach assumes not only that semantics is universal, but also that structural relationships among sentences are also universal. This assumption makes the search for linguistic universals easier. But on closer observation, it is superficial at best, and fallacious at worst. The fact is that Chinese sentence patterns are structured with each other under a set of conceptual systems on the one hand, and, on the other, that English sentence patterns are also structured with each other under another set of conceptual systems. An instructive example of misconception due to the objectivist approach in research on Chinese grammar during the last century can be found in the analysis of active and passive sentences in Chinese. Thus, with rare exception, Chinese grammarians, be they structuralist or generativist, have invariably treated (1a) as the active construction and (1c) as its corresponding passive. Syntacticians who have worked on language typology and language universals have also taken this analysis for granted. However, as pointed out in Tai (1989), on both semantic and syntactic grounds, (1b) and not (1a) should be treated as the corresponding active for the passive sentence (1c).

(1) a. Ta mai-le chezi.
he sell-ASP car
'He sold the car.'
b. Ta ba chezi mai-le.
'He sold the car.'
c. Chezi bei ta mai-le.
'The car was sold by him.'

In fact, the conceptual approach with a tint of relativism to the study of Chinese grammar has uncovered several important conceptual principles underlying the organization of Chinese grammar. They include the Principle of Temporal Sequence (Tai 1985), the Principle of Whole-and-part (Tai 1989), a set of cognitive parameters for categorization involving Chinese classifiers (Tai 1994), certain iconic constraints on the denominal verb convention in Chinese (1997), and iconic motivations for verb-copying in Chinese (Tai 1999). I believe that within the framework of the conceptual approach, many more conceptual principles of great explanatory value are to be uncovered. In the following section, I shall show that the semantic category "result" is a semantic prime in Chinese verb semantics and the action-result schema has played a much more important role in the Chinese conceptual system than in English.

3. The semantic category "result" in Chinese

In Talmy's (2000b, chapters 1&2) framework of cognitive semantics, "result" is a semantic category under co-event which accompanies the main event's action or state. Although the category of "result" is expressed in both Chinese and English, it has different ranges of meaning which provide motivations for different syntactic patterns. Consider the following contrast between Chinese and English sentences.

(2) a. Ta jia-cuo-le laogong.
she marry-wrong-ASP husband
'She has married the wrong husband.'
b. Ta qu-cuo-le laopo.
he marry-wrong-ASP wife
'He has married the wrong wife.'
(3) Ta zou-jin-le gongyuan.
s/he walk-enter-ASP park
'S/he walked into the park.'

(4) Ta ku-hong-le yanjing
s/he cry-red-ASP eye
'S/he cried so hard that her/his eyes turned red.'
(5) Women yao wu-chu jiankang.
we want dance-out health
'We want to dance to become healthy.'
(6) (Tamen chi yao) chi-chu wenti.
they eat medicine eat-out problem
'They became unhealthy from taking medicine.'
(7) Ta jintian zhi pao-dao-le san-ge keren.
he today only run-reach-ASP three-CL customer
'He (taxi driver) has only run three trips today.'

The sentence in (2) illustrates a systematic difference between Chinese and English in describing situations wherein a mistake occurred. While the Chinese word *cuo* 'wrong' is the resultative component in action-result verb compounds indicating the result of an action, the English word 'wrong' is an adjective modifying the object noun. If one takes an objectivist approach and assumes Chinese and English have the same semantics describing the making of mistakes, one would perhaps be inclined to subscribe to the principle and parameter approach to account for the difference between the two languages. On the other hand, if we take a non-objectivist approach, we immediately see the difference in (2) as the grammatical embodiment of two different conceptual systems that are equally effective. Chinese speakers attribute the mistake as a result of the action that the subject performs. In contrast, English speakers report a discrepancy between the person s/he sets out to marry and the person s/he has actually married. Similarly, the action-result schema is consistently patterned in Chinese, as shown in sentences (3) to (7). In contrast, the corresponding English sentences are expressed with different grammatical patterns in which the result is only implied, rather than overtly expressed as in Chinese.

It is clear from the above examples that the action-result schema provides a unified conceptual schema for describing various situations which are not necessarily construed as action-result schema in English, even though English does have an action-result schema as illustrated below.

(8) He hammered the metal flat.
(9) He kicked the door open.
(10) He painted the house red.

The recognition of 'result' as a semantic prime in Chinese verb semantics was in fact first proposed in Tai (1984), where I argue that, in contrast with the four semantic categories which Vendler (1967) has proposed for English, Chinese has only state, activities, and result, lacking accomplishment and achievement categories.[1] The latter two categories are expressed mostly in action-result verb compounds (V1-V2). Moreover, the resultative complement V2 seems to indicate foreground information and the action verb V1 seems to indicated background information.

Let me repeat a couple of key arguments in Tai (1984). First, while accomplishment verbs in English necessarily imply an attainment of the goal, their seeming equivalents in Chinese do not necessarily so imply. For instance, the accomplishment verb 'to kill' in English necessarily implies the death of the recipient of the action. Therefore, (11) is ungrammatical in English.

(11) *I killed John, but he didn't die.

The verb *sha* in Chinese is assumed in most English-Chinese and Chinese-English dictionaries as equivalent to 'to kill' in English. However, as shown in (12), the verb *sha* doesn't necessarily imply the death of the recipient of the action.[2]

(12) Wo sha-le John liang-ci, ta dou mei si.
I kill-ASP John two-CL he all not die
'I performed the action of attempting to kill John twice, but he didn't die.'

To guarantee the death of the recipient of the action, the verb compound *sha-si* has to be used. The ungrammaticality of (13) shows that *sha-si* does imply the death of the recipient of the action.

(13) *Wo sha-si-le John liang-ci, ta dou mei si.
I kill-die-ASP John two-CL he all not die
*'I killed John twice, but he didn't die.'

In fact, I would argue that the verb 'to kill' doesn't really exist in Chinese. On the

[1] However, Teng (1986), Smith (1990), He (1992), and Chang (2001) have maintained that Chinese has all four categories given by Vendler.

[2] If context information is properly provided, the verb *sha* can carry a pragmatic connotation implying the death of the recipient of the action. When the verb *sha* is used in *bei* and *ba* constructions, the implication of death tends to be stronger. It is also the case in verb compound *mousha* 'murder.'

one hand, many Chinese action-result verb compounds involving *si* 'to die' can be translated into 'to kill' in English. For example,

(14) kache nian-si-le John.
truck grind-die-ASP John
'The truck killed John by running him over.'
(15) ta qiao-si-le John.
he knock-die-ASP John
'He killed John by hitting him with a hammer (stone, stick, etc.).'
(16) ta da-si-le John.
he hit-die-ASP John
'He killed John by hitting him (with or without an instrument).'
(17) ta ba erzi e-si-le.
he take son starve-die-ASP
'He killed his son by starving him.'

On the other hand, there are many uses of 'to kill' in English that cannot be translated with *sha-si*. They need to be translated with verb compounds in construction with *-si*.

(18) The earthquake killed hundreds of people.
(19) The famine killed thousands of people.
(20) He was killed in an accident.

Second, among those achievement verbs identified by Vendler (1967) and Dowty (1979), many of them are expressed in Chinese by action-result verb compounds. For example, 'to find' in Chinese is *zhao-dao* 'seek-reach', 'to receive' is *shou-dao* 'collect-reach,' 'to see' is *kan-dao* 'look-reach,' and 'to hear' is *ting-dao* 'listen-reach.' These resultative verb compounds behave syntactically and semantically no different from those equivalent to accomplishment verbs in English mentioned above.

Most action-result verb compounds in Chinese function as transitive verbs. There have been two related issues regarding the transitivity. The first issue is to identify the 'main verb' or 'head' in these compounds. The second issue has to do with the source of transitivity. Here, I shall be mainly concerned with the first issue. The dominant view holds that the first element of the compounds which represent action is 'main verb' or 'head' (Chao 1968, Li and Thompson 1982, Huang 1988, Chang 2001). A different view has been proposed by Tai (1973) and Hsueh (1989) which regards the second element, or the so-called 'complement', as the 'head.' If we accept 'result' as a semantic prime underlying action-result verb compounds, it makes sense to take the second element as

the center of predication, even though it cannot be analyzed as an independent transitive verb in surface syntax. Thus, the verb compounds in construction with *si* 'to die' illustrated in sentences (14) through (17) can be analyzed as 'cause to die.' In other words, as second element of the compound, it is really equivalent to 'to kill' in English. It functions as the center of predication, if not the main verb in surface syntax. The action verbs in these compounds, regardless of whether they are transitive or intransitive verbs, function like manner adverbs. As a matter of fact, the first element in verb compounds with *si* doesn't have to be a verb by itself. For example, *du* in (21) and *qi* in (23) cannot stand alone as a verb as illustrated in (22) and (24), respectively.

(21) Tamen du-si-le John.
they poison-die-ASP John
'They killed John with poison.'

(22) *Tamen du-le John.
they poison-ASP John
'They poisoned John.'

(23) Zhe-jian shi qi-si-le John.
this-CL thing anger-die-ASP John
'This case infuriated John to death.'

(24) *Zhe-jian shi qi-le John.
this-CL thing anger-ASP John
'This matter angered John.'

In fact, in Talmy's (2000b:151-153) recent treatment of the semantic category 'result', all incorporation of 'result,' whether in verb root or satellite, presents the main event. In Chinese action-result verb compounds (V1-V2), V1 expresses the cause, but presents the subordinate event; whereas V2 expresses the result, but presents the main event. Thus Talmy's analysis of the resultative construction supports Tai's early analysis (Tai 1973) of the resultative complement as the center of predication in Chinese. However, Talmy treats the resultative complement as the satellite rather than verb root in Chinese. In the following section, I question the analysis and raise the issue whether Chinese is indeed a 'satellite-framed' language like English.

4. Resultative complement as verb root in Chinese

Talmy (1985, 2000b) has proposed a conceptual analysis of motion events which consists of four cognitive components: FIGURE, GROUND, MOTION, and PATH. In addition to these four internal components, a motion event is accompanied with an external co-event which includes MANNER and CAUSE. In some languages such as

English or German, the verb incorporates MOTION and MANNER. In other languages such as French or Spanish, the verb incorporates MOTION and PATH. The former languages are referred to as 'satellite-framed' languages and the latter as 'verb-framed' languages. In satellite-framed languages the cognitive component PATH has to be spelled out, while in verb-framed languages the cognitive component MANNER has to be spelled out. This contrast can be illustrated by the English example in (25) and the French example in (26) from Ungerer and Schmid (1996).

(25)	John	flew	across	the Channel.
	FIGURE	MOTION/MANNER	PATH	GROUND
(26)	John	traversa	la Manche	en avion
	John	traversed	the Channel	by airplane
	FIGURE	MOTION/PATH	GROUND	MANNER

The following Spanish examples from Talmy (2000b:49-50) also illustrate the same point.

(27) La botella entró a la cueva (flotando)
the bottle MOVED-in to the cave (floating)
'The bottle floated into the cave.'

(28) La botella salió de la cueva (flotando)
the bottle MOVED-out from the cave (floating)
'The bottle floated out of the cave.'

(29) La botella pasó por la piedra (flotando)
the bottle MOVED-by past the rock (floating)
'The bottle floated past the rock.'

Talmy has classified Chinese as a satellite-framed language because the verb in Chinese incorporates the MANNER component, but not the PATH component, as shown in (30).

(30)	John	fei	guo	Yingjili Haixia
	John	fly	pass	English Channel
	FIGURE	MOTION/MANNER	PATH	GROUND

However, the cognitive component PATH *guo* in (30) can be used independently as a verb, as illustrated in (31). Furthermore, it can be treated as a verb incorporating MOTION and PATH. This is evidenced by the fact that it can be affixed with the aspect marker *-le*.

(31)	John	guo	le	Yingjili Haixia
	John	pass	ASP	English Channel
	FIGURE	MOTION/PATH		GROUND

In contrast, the verb *fei* 'to fly' cannot occur alone without *guo* in this context, as illustrated in (32).

(32)	*John	fei	le	Yingjili Haixia
	John	fly	ASP	English Channel
	FIGURE	MOTION/MANNER		GROUND

The above illustrations also show that *guo* is a verb incorporating PATH and is the center of predication in the verb compound *fei-guo*, which indicates the completion of passing the channel. The sentence in (30) should be translated literally as in (33).

(33) John passed the English Channel by flying.

Similarly, the equivalent Chinese sentences for (27)-(29) can be given below in (34)-(36), which contain the resultative verb compounds *piao-jin*, *piao-chu*, and *piao-guo*. And, sentences in (37)-(39) show that the resultative complement V2 in each sentence is indeed a verb root incorporating PATH.

(34)	pingzi	piao-jin-le	dongxue
	bottle	float-enter-ASP	cave
	'The bottle floated into the cave.'		
(35)	pingzi	piao-chu-le	dongxue
	bottle	float-exit-ASP	cave
	'The bottle floated out of the cave.'		
(36)	pingzi	piao-guo-le	yanshi
	bottle	float-pass(by)-ASP	rock
	'The bottle floated past the rock.'		
(37)	pingzi	jin-le	dongxue
	bottle	enter-ASP	cave
	'The bottle entered the cave.'		
(38)	pingzi	chu-le	dongxue
	bottle	exit-ASP	cave-inside
	'The bottle exited the cave.'		
(39)	pingzi	guo-le	yanshi
	bottle	pass-ASP	rock
	'The bottle passed by the rock.'		

From the above illustrations, it appears that Chinese differs from both satellite-framed languages and verb-framed languages. In Talmy's typological classification of motion verbs, in addition to his tripartite classification, i.e., Motion+Path (verb-framed), Motion+ Co-event (satellite-framed), and Motion+Figure, split system and intermixed system of conflation are also proposed. Based on a preliminary analysis, it appears that Chinese is neither a split system nor an intermixed system. In Chinese action-result verb compounds, V1 conflates Motion and Co-event, while V2 conflates Motion and Path. Thus Chinese presents a problem for Talmy's typological classification of motion verbs since it is both satellite-framed and verb-framed depending whether we take V1 or V2 as the main verb. As I have argued above, V2 is the center of predication of the action-result verb compounds, and therefore, can be treated as the main verb. If we take V2 as the main verb, then Chinese is no longer a satellite-framed language as Talmy has claimed. It makes more sense to view Chinese as primarily a verb-framed language and only secondarily a satellite-framed language. It would be interesting to see if other languages with action-result verb compounds show the same characteristics as Chinese.[3]

5. Conclusion

I have shown that Chinese and English exhibit a systematic difference in structuring events consisting of both action and result. This systematic difference can be stated to the effect that while English structures on the action aspect, Chinese structures on the result aspect. In the spirit of linguistic relativism, I would like to view the difference as reflecting ontological relativity involving events. This ontological relativity means that English speakers tend to attend relatively more to the process of an event, but, in contrast, Chinese relatively more to the result. In other words, while English is an agent-oriented language, Chinese is a patient-oriented language, as suggested in Tai (1984).[4]

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[3] Another way of understanding action-result verb compounds is to view them as reflecting Talmy's 'causal-chain' event-frame, rather than motion event-frame. In this view, the sentence below can be analyzed as consisting of three sub-events forming a causal-chain.

Ta yong shitou da-si-le John.
he use stone hit-die-ASP John
'He killed John with a stone.'

The first sub-event is that he took a stone. The second sub-event is that he hit him with the stone. The third sub-event is that John died. This causal-chain is reflected also in the linear order of the above sentence in line with the temporal sequence principle, which I have proposed for word order in Chinese (Tai 1985).

[4] There is a host of syntactic evidence in support of this view. However, due to space limitations,

The ontological relativity suggested here is an extension of ontological relativity articulated by the philosopher Quine (1960, 1969). His well-known *Gavagai* example has illustrated two alternative ontological beliefs the speakers can hold about the referents of nouns. One is for nouns to refer to the "bodies" of objects, the other to the "materials" of objects. This difference has already been reflected in the semantic contrast between count and mass nouns in English. Yet, in terms of the linguistic relativity hypothesis, there is no distinction between count and mass nouns; that is, all nouns in classifier languages can be treated as mass nouns. Thus, in classifier languages, nouns are not inflected for plural and cannot be counted without the accompaniment of classifiers. In addition, bare nouns can indicate either definite or indefinite reference, depending on context. In other words, nouns in classifier languages denote materials or substances, non-discrete and unbounded, while in English and other European languages, they denote objects with discrete boundaries. This hypothesis, if it is to be tested for the cognitive consequences of linguistic relativity, would predict that native speakers of classifier languages would give prominence to material or substance, while native speakers of English and other European languages would give prominence to bodies.

Lucy (1992a, b) designed an experiment to show that the mass noun hypothesis does have a cognitive consequence. The classifier language he used to contrast with English was Yucatec Maya. His subjects were ten Maya men and thirteen U.S. men. Subjects were presented with a triad of objects. Each triad consisted of an original object and alternative objects. The results show that English speakers overwhelmingly classify objects on the basis of shape, while Yucatec speakers overwhelmingly classify objects on the basis of materials. Cognitive differences induced by classifiers are further demonstrated in Zhang and Schmitt (1998). Their experiments showed that Chinese speakers, relative to English speakers, judged objects sharing a classifier as more similar than objects not sharing a classifier and were more likely to recall them in clusters. From these two sets of experiments, it appears that language can affect certain types of cognition, if not thought as a whole. It is therefore worth exploring the question of whether the pervasive patterning of action-result schemas with the result as the center of information in Chinese can also affect certain aspects of cognition.[5]

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[5] I shall not be able to elaborate here, but simply refer to Tai (1998) for some illustrative examples. Psycholinguistic experiment may or may not provide conclusive evidence for the cognitive relativism in question. Yet, a very recent article on culture and systems of thought by Nisbett, Peng, Choi, and Norenzaya (2001) strongly questions the assumption of universality of cognitive processes long held in the psychological tradition. They also cite a host of psycholinguistic evidence suggesting that while Chinese attend to holistic cognition, European attend to analytic cognition. Tai (1989) has actually explored Chinese/English contrastive grammar in this direction.

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認知相對論：漢語結果複合動詞的啓示

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語言相對論與認知相對論在當代的認知語言學重新得到詮釋。本文認爲表達結果的漢語動詞複合詞的述語中心是落在表達結果的補語，而不是在表達動作的動詞部分。本文也因此對眾所週知的塔米動詞類型理論提出修正。本文進一步認爲在認知上，漢語使用者比較注重一個事件的結果，而相對的英語使用者比較注重一個事件的過程。

關鍵詞：認知語言學，相對論，概念結構，動詞語意，漢語結果複合動詞