

The Cartography
of Chinese Syntax |
The Cartography of
Syntactic Structures,
Volume 11 |
Edited by
Wei-Tien Dylan Tsai

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The Cartography of Chinese Syntax

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THE CARTOGRAPHY OF CHINESE SYNTAX

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CONTENTS

Preface *vii*

Contributors *xiii*

1. A Tale of Two Peripheries: Evidence from Chinese Adverbials, Light Verbs, Applicatives and Object Fronting *1*
Wei-Tien Dylan Tsai
2. The Even-Construction and the Low Periphery in Mandarin Chinese *33*
Linda Badan and Francesca Del Gobbo
3. On the Fine Structure of the Left Periphery: The Positions of Topic and Focus in Cantonese *75*
Candice Chi-Hang Cheung
4. Adjunct *Wh*-Words in Left Periphery *131*
Sze-Wing Tang
5. Locating *Wh*-Intervention Effects at CP *153*
Barry Chung-Yu Yang
6. The Left Peripheral *Renjia* and Layers of CP in Chinese *187*
Chen-Sheng Luther Liu
7. The Fine Structure of Spatial PPs in Mandarin Chinese *209*
Hsiao-Hung Iris Wu

Index *235*

PREFACE

This book is a collection of papers aiming to provide new insights into the architecture of Chinese grammar from a comparative perspective. In particular, we are interested in mapping out the “topography” of a variety of specific constructions in Chinese under the cartographic guideline laid out in Cinque and Rizzi (2010). We will present a broader picture of how the alignment between syntax and semantics works in a principled way.

Thanks to its robust analyticity, Chinese is an “in situ” language ideal for the above line of research (cf. Huang 2014), where functional elements often spread throughout sentential and phrasal projections, rather than agglutinate together as dictated by language-specific morphology. This provides us a window into the origin of some heavily “scrambled” constructions often observed in other languages. Armed with this distinctive analytical advantage, we explore issues related to the syntax of information structure, *wh*-question formation, and various types of peripheral functional elements.

More specifically, we will study the way information structure is encoded and organized in the peripheral areas of syntactic phases (i.e., CP and *v*P) along the lines of Rizzi (1997, 2004) and Belletti (2004, 2005), and update the typological status of Chinese (as well as its major dialects) in terms of cartography. Another goal is to map out the “topography” of Chinese functional elements such as *wh*-elements and spatial PPs. The analyses will be carried out with a view to articulating the functional projections involved in licensing the corresponding semantics. In particular, issues central to the evolution of minimalism are under intense scrutiny, including the locality effects triggered by focus operators, as well as the distribution and interpretation of certain sentential adverbs and locative expressions. The seven chapters of this volume are organized as follows:

In chapter 1, Dylan Tsai shows that the distribution of Chinese functional elements is concentrated in two specific areas: the *v*P periphery vs. the left periphery in the sense of Rizzi (1997). The contrast is most easily seen in the inner-outer dichotomy of *wh*-adverbials, as well as that of reflexive adverbials. By drawing comparative evidence from Russian, Japanese, and Tsou, Tsai shows that despite morpho-syntactic variations on the surface, the

generalization nevertheless comes out the same: namely, inner adverbials at the *v*P periphery are associated with comitativity, whereas outer adverbials at the left periphery are associated with causality.

Language-internal parallels are also found in Chinese light verbs, applicatives, and object fronting with striking conceptual connections. These findings lend strong support to the existence of the *v*P periphery, which hopefully will bring us one step closer to a full understanding of the nature of syntax-semantics mapping under the cartographic approach.

In chapter 2, Linda Badan and Francesca Del Gobbo demonstrate that *even* does not always strictly encode focus in both Mandarin and Italian, and that the *even*-construction can play two roles: Focus and Topic. They argue that Chinese has a low periphery consisting of two kinds of functional projections: the *lian*+XP as well as a contrastive topic position. Their investigation highlights the fact that the notions of Topic and Focus are more fine-grained than what was originally thought. A canonical topic will have all the typical features of the topic, both syntactically and semantically. The same can be said for a canonical focus. But there can be intermediate cases, the sentence-initial *lian*-XP and *perfino*-XP being two of these. As a result, the notion of “topic” is wider than the simple notion of old information: a topic has specific syntactic characteristics, but it may also have a semantic import diametrically opposite to the one of old information.

In chapter 3, Candice Cheung offers an in-depth study of the morphological, semantic, and syntactic properties of *wh*-fronting constructions in Cantonese, and argues that *wh*-fronting constructions are best analyzed as a type of identificational focus construction. Adopting the cartographic approach and drawing on evidence from connectivity effects, locality conditions, and the ability to license parasitic gaps, she proposes that *wh*-fronting constructions in island-free contexts essentially have a monoclausal structure in which the *wh*-phrase is derived by movement to Spec-FocP. In contrast, *wh*-fronting constructions in island contexts employ the base-generation strategy, where the *wh*-phrase can be linked to either a *pro* or a resumptive pronoun. The chapter then proceeds to investigate the full inventory of topics and foci and the fine structure of the left periphery in Cantonese. In particular, by comparing the topography of topics and foci in Cantonese and Italian, it is shown that, although the types of topics and foci and their specific ordering are language-specific, the syntactic encoding of information structure is nonetheless governed by the same universal principle (i.e., from given information to new information).

Chapter 4 is by Sze-Wing Tang, and scrutinizes the syntax of left periphery by examining the distributions of Chinese *wh*-adjuncts such as *zenme* ‘how’ and other related adverbials like *daodi* ‘on earth’ under the cartographic approach (cf. Tsai 2008). It is argued that there should be distinct positions for three different types of adjunct *wh*-words in the left periphery: denial

zenme, causal *zenme*, and the reason *wh*-word *weishenme* why. The hierarchical ordering of these elements is given below:

Force > Topic > Attitude > Int > Topic > Attitude > I . . .

This move sheds new light on our understanding of how pragmatics interacts with syntax in structural terms.

In chapter 5, Barry Yang starts with a case of intervention effects, where a rhetoric *wh* is ruled out when preceded by a quantifier phrase at the CP layer. It is suggested that such a phenomenon can be mapped onto syntax where the quantifier phrase is merged at TopP as an intervener, which in turn blocks covert movement of the rhetoric *wh* from FocusP to a higher ForceP. In addition, the same analysis may be extended to account for the fact that a *wh*-nominal cannot co-occur with a *wh*-adverb or an evaluative adverb. More specifically, a Q-operator is merged to FocP in the left periphery: it binds nominal *wh*'s-in-situ (cf. Tsai 1994), while serving as an intervener of covert operator movement to either IntP or EvaP. In conclusion, Yang demonstrates that some apparent counterexamples can be explained away by assuming that they involve two functional elements competing for the same slot in the CP domain.

Chapter 6 is by Luther Liu, who proposes to study the role of non-referential (NR) *renjia*, as well as how NR *renjia* is related to sympathetic (SA) *renjia* in semantic/pragmatic terms. It is suggested that, in contrast with a sentence-final question particle like *ne*, NR *renjia* is a sentence-initial C-element occupying the outer focus position in the left hierarchy (cf. Rizzi 1997, 2004; Tsai, this volume). Moreover, among the different uses of *renjia* exists a systematic correspondence between the syntactic hierarchy and the level of abstraction of 'antilogophoricity,' shifting from a discontinuity between individuals at the level of person deixis to a discontinuity between discourse units at the level of proposition deixis. Parallel to Tsai's analysis of Chinese reflexive adverbials, the various usages of *renjia* can be divided into two groups: inner vs. outer antilogophors. The inner construal applies on (or within) the *v*P domain and has individuals as targets in semantic terms. By contrast, the outer interpretation is available at the CP layer, where it is natural to have propositions as targets.

In chapter 7, following the cartographic guideline, Iris Wu looks into the spatial PP system in Mandarin Chinese, where distinct functional projections are associated with different morphemes or phrasal modifiers (cf. Cinque 1999, 2010). Facts about compositional locative phrases in Mandarin Chinese are examined, with a focus on the differences among various adpositional heads. It is proposed that the spatial PP structure in Mandarin Chinese is (minimally) composed of an articulated PlaceP-AxPartP configuration with the presence of a silent PLACE noun obligatorily selected by the AxPartP

within the DP complement of the Place projection. In particular, the so-called localizers, though with notable noun-like behavior, should be regarded as an adpositional element. It is the silent nominal core PLACE, and its close relation to localizers that renders the mixture of nominal and non-nominal properties exhibited by locative phrases. The structure proposed in this study thus provides a straightforward explanation to the deictic usage of certain demonstrative-locative sequences, as well as linguistic variations where a preposed PP can serve as a grammatical subject in one language, but cannot in another language.

In sum, Chinese is an ideal testing ground for the cartographic approach due to its robust analyticity, as functional elements spread over the sentential projections in an orderly manner, revealing some “hidden” cartography obscured by morpho-syntactic displacement in other languages. The insight lays a solid conceptual foundation for our line of research, and all our chapters aim to implement it through exploring a huge amount of data untouched in the literature. This is where this volume really shines, and hopefully will contribute to our understanding of the general properties of the syntax-semantics interface, as well as the optimal design of human language faculty.

Finally, I would like to express my gratitude to Luigi Rizzi and Memo Cinque for their initial encouragement and unfailing support of this book project over the years. They provided invaluable comments to our contributors at several occasions when they met in National Tsing Hua University. Special thanks also go to Richie Kayne and Hallie Stebbins, as well as two anonymous reviewers, for their suggestions on how to improve the scope and overall organization of this volume. Admittedly, all our contributors are working from the ground up, and there are still numerous aspects of Chinese grammar that do not fall under our coverage. We are nonetheless committed to a full-fledged investigation into the cartography of Chinese syntax, and will continue to broaden the landscape of this enterprise in the future.

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The Cartography of Chinese Syntax

CHAPTER 1

A Tale of Two Peripheries

*Evidence from Chinese Adverbials, Light Verbs,
Applicatives and Object Fronting*

WEI-TIEN DYLAN TSAI

INTRODUCTION

This paper sets out to join a recent inquiry into the peripheral area around the edge of ν P along the line of Belletti (2004, 2005).^{*} It is suggested that, in comparison with other languages more agglutinating in nature, Chinese provides an ideal testing ground for this venture in that its linguistic expressions are often constructed analytically (cf. Huang 2004), and their “loosened” parts may spread over functional projections in a minimalist manner (i.e., Merge instead of Move, very much in line with the notion of Lexical Courtesy).¹ We show that their distribution concentrates on two specific areas—that is, the ν P periphery vs. the left periphery in the sense of Rizzi (1997, 2001), which in turn are associated with comitativity and causality respectively through the syntax-semantics interface.

1. INNER ADVERBIALS VS. OUTER ADVERBIALS

1.1. How-Why Alternations in a Wider Context

Since Collins’s (1991) seminal work on the asymmetry between *why* and *how come* in English, there is a growing interest in studying the distribution and interpretation of *wh*-adverbials across languages. What we have

observed in Chinese is another line of division in terms of their syntactic distribution (i.e., inner *wh*-adverbials vs. outer *wh*-adverbials, roughly corresponding to the classic distinction between VP-adverbs and sentential adverbs (cf. Tsai 2008a)). Here we would like to argue that the division between the *vP* periphery and the left periphery is most easily seen in this inner-outer dichotomy: When *zenme* appears before a future modal, it gets interpreted as causal, as in (1a). In contrast, it receives an instrumental reading in a postmodal position, as in (1b):²

- (1) a. tamen **zenme** hui chuli zhe-jian shi? [outer *how* > modal]
 they how will handle this-Cl matter
 'How come they will handle this matter?'
 b. tamen hui **zenme** chuli zhe-jian shi? [modal > inner *how*]
 they will how handle this-Cl matter
 'How will they handle this matter?'

There are two forms of Chinese *why* as well: as shown in (2a), the outer *why* patterns with an adverb, can never appear after the future modal, and the interpretation is strictly a reason question. On the other hand, the inner *why* behaves more like a PP, and typically appears after the future modal, resulting in a purpose question, as illustrated by (2b):

- (2) a. Akiu **weishenme** hui zou? [outer *why* > modal]
 Akiu why will leave
 'Why would Akiu leave?'
 b. Akiu hui **wei(-le) shenme** cizhi? [modal > inner *why*]
 Akiu will for(-LE) what resign
 'For what purpose would Akiu resign?'

In fact, as noted by Stepanov and Tsai (2008), there are also two types of *why*-questions in Russian: *počemu*, a reason *why*, must appear above negation, as in (3a), whereas its purpose counterpart, *zачem*, cannot, as in (3b):

- (3) a. **počemu** vy ne skazali mne ob etom?
 Why^R you not said me-dat about this
 'For what reason didn't you tell me about this?'
 b.* **zачem** vy ne skazali mne ob etom?
 Why^P you not said me-dat about this
 'For what purpose didn't you tell me about this?'

On the other hand, while it is impossible to put *počemu* 'why^R' in the scope of negation by forming an indefinite *wh*, the same practice is perfectly fine with *zачem* 'why^P', as evidenced by the contrast of (4a,b):

- (4) a.* mne ne-**počemu** tuda xodit'.
 me-dat not-why^R there to-go
 'I have no reason in going there'
- b. mne ne-**začem** tuda xodit'.
 me-dat not-why^P there to-go
 'I have no purpose in going there'

This is reminiscent of the negative island effects on the Chinese outer *why*, as illustrated by the contrast in (5a,b). On the other hand, the inner *why*, by virtue of assuming a PP form, can indeed be rescued by an indefinite construal under negation (cf. Tsai 1994a,b; Stepanov and Tsai 2008), as in (6):

- (5) a. Akiu **weishenme** bu likai?
 Akiu why not leave
 'Why didn't Akiu leave?'
- b.* Akiu bu **weishenme** likai?
 Akiu not why leave
- (6) Akiu bu **wei(-le) shenme** likai. ta zhi shi bu naifan le!
 Akiu not for(-LE) what leave he only be not patient Inc
 'Akiu left for no purpose. He was just growing impatient!'

Furthermore, a recent fine-grained study of Japanese *wh*-adverbials also reveals that *nande* can be interpreted as either reason or instrumental, depending on its syntactic position as well as its categorial status (cf. Huang, 1982; Fujii et al. 2014), as exemplified by the ambiguity displayed by (7a,b):

- (7) Mari-wa nande kaetta-no?
 Mari-Top NANDE left-Q
 a. 'How did Mari leave?' [instrumental]
 b. 'Why did Mari leave?' [reason]

The above ambiguity thus provides another fine example of *how-why* alternations in Tsai's (2008a) sense, which can be dissolved by replacing *nande* with its uncontracted counterpart *nani-de* 'what-with', presumably a PP in syntactic terms, as in (8a), or by adding a de-D-linking marker *mata* on earth', as in (8b):³

- (8) a. Mari-wa nani-de kaetta-no?
 Mari-Top what-with left-Q
 'With what (means) did Mari leave?' [instrumental]

- b. Mari-wa nande mata kaetta-no?
 Mari-Top NANDE on.earth left-Q
 ‘Why on earth did Mari leave?’ [reason]

Interestingly enough, only instrumental *nande* (call it *nande*^l) and its PP form can appear below certain sentential adverbials such as *kanarazu* ‘necessarily’ or *tokidoki* ‘sometimes’, as shown by (9a). In contrast, the corresponding reason question is blocked in the same configuration, as shown by (9b):

- (9) Hiroshi-wa kanarazu/tokidoki nande^l/nani-de okayu-o taberu-no?
 Hiroshi-Top necessarily/sometimes how/what-with rice.congee-Acc eat-Q
 a. ‘How does Hiroshi necessarily/sometimes eat rice congee?’ [instrumental]
 b.# ‘Why does Hiroshi necessarily/sometimes eat rice congee?’ [*reason]

On the other hand, when *nande* appears above those adverbials with *mata*, the reading is distinctively reason (call it *nande*^R), and the instrumental question is blocked instead, as evidenced by (10a,b):

- (10) Hiroshi-wa nande^R mata kanarazu/tokidoki okayu-o
 Hiroshi-Top why on.earth necessarily/sometimes rice.congee-Acc
 taberu-no?
 eat-Q
 a.# ‘How on earth does Hiroshi necessarily/sometimes eat
 rice congee?’ [*instrumental]
 b. ‘Why on earth does Hiroshi necessarily/sometimes eat
 rice congee?’ [reason]

On the historical front, we can also find evidence for the inner-outer dichotomy in Tsou. First consider (11a): *Mainenu* ‘how’ starts as a verbal predicate linked to the main predicate by the conjunction *ho*, although in the latter stage of development *ho* has evolved into a complementizer introducing a control complement (cf. Tsai and Chang 2003; Tsai 2007a):

- (11) a. m-i-ta **m-ainenu ho** m-i-ta eobak-o ta-Mo’o ‘e-Pasuya?
 AV-Rea-3S AV-how Lnk AV-Rea-3S hit-AV Obl-Mo’o Nom-Pasuya
 ‘How did Pasuya hit Mo’o?’ [instrumental/manner/resultative]
 (Lit.) ‘Pasuya hit Mo’o and how?’
 b. m-i-ta **m-ainenu [ci** m-i-ta eobak-o ta-Mo’o) ‘e-Pasuya?
 AV-Rea-3S AV-how such.that AV-Rea-3S hit-AV Obl-Mo’o Nom-Pasuya
 ‘How come Pasuya hit Mo’o?’ [causal]
 (Lit.) ‘How was Pasuya such that he hit Mo’o?’
 c. m-i-ta **m-ainci** eobak-o ta-Mo’o ‘e-Pasuya?
 AV-Rea-3S AV-why hit-AV Obl-Mo’o Nom-Pasuya
 ‘Why did Pasuya hit Mo’o?’ [reason]

Mainenu can also be construed as a matrix predicate taking a finite clause headed by *ci* ‘such that’ as its complement, as evidenced by (11b). As a result, a causal question is formed. The further development has seen a collapsing of the bi-clausal structure, with *mainenu* and *ci* contracted into a sentential adverbial *mainci* ‘why’, as shown in (11c). We therefore have another case of the inner-outer distinction cutting across *how*-questions and *why*-questions.

1.2. Inner Selfhood vs. Outer Selfhood

It is worthwhile to note that there is a strong correspondence between outer adverbials and eventuality construals, in particular with regard to event-level causation. Namely, when we ask a *why*-question, we are essentially presupposing the existence of a cause or reason for the current event, and asking the addressee to point out what it is (cf. Karttunen 1977; Bromberger 1992). At this level, outer *wh*-adverbials always scope over the subject. As a result, they do not observe the agentivity restriction like their inner counterparts such as the instrumental *how* and purpose *why*. The latter is strictly agent-oriented, expressing a kind of proto-comitativity associated with various usages of the English *with* (cf. Tsai 2008a). As evidenced by the absence of instrumental readings in the unaccusative construction (12) and the locative-existential construction (13), non-agent subjects are only compatible with outer *wh*-adverbials:

- (12) na-ben shu zenme/*zenmeyang chu-xian-le?
 that-CL book how come/how show-up-Prf
 a. ‘How come that book showed up?’
 b.# ‘By what means did that book show up?’
- (13) cong faguo zenme/*zenmeyang lai-le san-ge gongchengshi?
 from France how come/how come-Prf three-CL engineer
 a. ‘How come three engineers came from France?’
 b.# ‘By what means did three engineers come from France?’

The same asymmetry obtains for the pair of Chinese *why*’s as well, as illustrated below:

- (14) na-ben shu weishenme/*wei(-le) shenme chu-xian-le?
 that-CL book why/for(-LE) what show-up-Prf
 a. ‘Why did that book show up?’
 b.# ‘For what purpose did that book show up?’

- (15) cong faguo zenme/*wei(-le) shenme lai-le san-ge gongchengshi?
 from France why/for(-LE) what come-Prf three-Cl engineer
 a. 'Why did three engineers come from France?'
 b.# 'For what purpose did three engineers come from France?'

As a matter of fact, a parallel to the inner-outer dichotomy can be found in Chinese reflexive adverbials as well: In (16a), the premodal *ziji* is interpreted as anti-causal (e.g., without others' coercion/persuasion), while in (16b), its postmodal counterpart is construed as anti-comitative (i.e., without others' company/help):

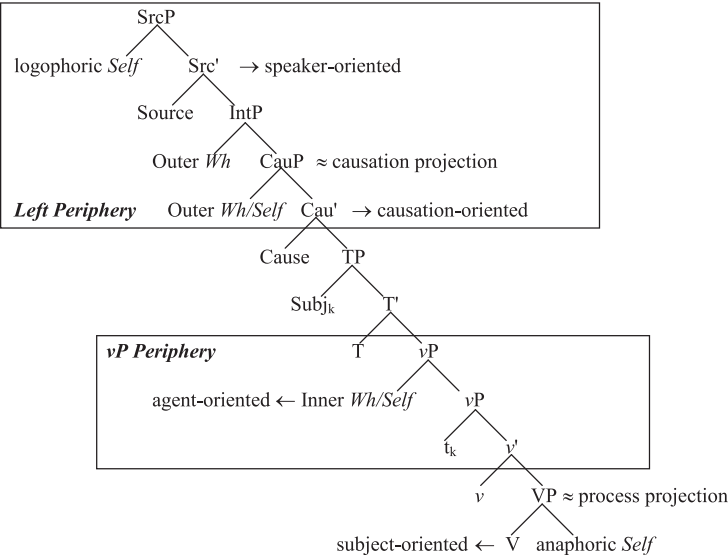
- (16) a. Akiu **ziji** hui chuli zhe-jian shi. [outer self > modal]
 Akiu self will handle this-Cl matter
 'Akiu will handle this matter on his own initiative/voluntarily.'
 b. Akiu hui **ziji** chuli zhe-jian shi. [modal > inner self]
 Akiu will self handle this-Cl matter
 'Akiu will handle this matter alone/in person.'

Again we found subject agentivity effects on inner reflexive adverbial construals: As shown by unaccusative sentences like (17) and locative-existential sentences like (18), only the anti-causal readings survive, whereas the anti-comitative readings are blocked:

- (17) na-ben shu ziji chu-xian-le.
 that-Cl book self show-up-Prf
 a. 'That book showed up by itself (i.e., without human intervention).'
 b.# 'That book showed up alone.'
- (18) cong faguo ziji lai-le san-ge gongchengshi.
 from France self come-Prf three-Cl engineer
 a. 'From France came three engineers without invitation.'
 b.# 'From France came three engineers by themselves/in person.'

These parallels lead us to the conclusion that outer *wh*-adverbials pattern with outer reflexive adverbials in expressing (anti-)causality, while inner *wh*-adverbials pattern with inner reflexive adverbials in expressing (anti-)comitativity (i.e., a *with*-relation in the sense of Parsons (1995)). Based on Rizzi's split-CP analysis, we propose to associate the property of outer adverbials with the left periphery, while attributing the property of inner adverbials to the *v*P periphery in the spirit of Belletti (2004, 2005). The two peripheries roughly correspond to the edges of two strong phases (i.e., CP and *v*P, along the line of Chomsky (2000, 2001)). We may thus visualize this inner-outer dichotomy in the following diagram:

(19) Topography of Chinese reflexive adverbials



Building upon Ramchand's (2008) distinction between the causation projection and the process projection within *vP*, we implement the insight in terms of a causative phrase (*CauP*) in the left periphery to encode the eventuality causation mentioned above (also cf. Shlonsky and Soare 2011). The Spec of *CauP* thus readily provides a locus for outer reflexive and *wh*-adverbials, except perhaps for the causal *zenme*, which may well serve as the head of the interrogative phrase (*IntP*), patterning with *perché* in Italian and *how come* in English (see Tsai 2008a for detailed discussion). In contrast, inner reflexive and inner *wh*-adverbials are agent-oriented in nature. They serve as a *vP*-adjunct in syntax, while behaving like a focus operator in terms of semantics (cf. Tsai, forthcoming).

Argumental reflexives, on the other hand, either stay within *VP* as anaphors, typically subject-oriented, or situate high above as logophors in the so-called source phrase (*SrcP*), typically speaker-oriented (cf. Huang and Liu 2000).

All in all, the syntax-semantics correspondences of Chinese inner/outer adverbials thus provide a strong argument for the proposed two-periphery analysis. As a point of interest, it is worthwhile to note that a doubled strong pronoun in a *vP*-internal focus position in Italian can produce an adverbial-like “in person” reading (cf. Belletti 2005), as shown below:

- (20) Maria manderà suo fratello, invece **Gianni** verrà **lui**.
Maria will.send her brother but Gianni will.come he
'Maria will send her brother, but Gianni will come himself/in person.'

In a sense, this so-called “strong pronoun doubling” provides cross-linguistic support for our proposal to tie inner *Self* with the *vP* periphery. We will return to the connection between focus construals and the *vP* periphery below.

2. INNER LIGHT VERB VS. OUTER LIGHT VERB

Another case in favor of our claim has to do with the fact that there are also two classes of Chinese light verbs which, rather surprisingly, display the now familiar inner-outer asymmetry (cf. Tsai 2007b). The first class includes eventuality predicates such as CAUSE, as first discussed in the seminal work of Huang (1994, 1997). It is argued that the syntax-semantics mismatch of (21) can be resolved by analyzing its underlying structure parallel to (22), where a lexical causative verb *rang* is present, and the resultative verbal complex *chi-de* is returned to its normal position:⁴

- (21) na-dun fan **chi-de** Akiu huomaosanzhang.
 that-Cl meal eat-Res Akiu furious
 ‘That meal made Akiu eat such that he became furious.’

- (22) na-dun fan **rang** Akiu **chi-de** huomaosanzhang.
 that-Cl meal cause Akiu eat-Res furious
 ‘That meal made Akiu eat such that he became furious.’

Specifically, we entertain the possibility that in (21) there is an implicit causative predicate CAUSE, situated in exactly the same position as its lexical counterpart in (22), as illustrated in (23a):

- (23) a. na-dun fan **CAUSE** Akiu **chi-de** huomaosanzhang. [outer light verb]
 that-Cl meal cause Akiu eat-Res furious
 ⇒ b. na-dun fan [**chi-de**]_k + **CAUSE** Akiu t_k huomaosanzhang. [raising-to-outer v]
 that-Cl knife eat-Res Akiu furious

This implicit predicate takes a Cause as its external argument, and an effect event as its complement. (21) is thus derived by raising the resultative verb to CAUSE, which is phonologically defective and requires verb-raising to fulfill the PF requirement.⁵

The second class of light verbs involves various construals associated with dynamic properties and contrastive foci (e.g., instrumental, locative, and benefactive— see Lin 2001, and Feng 2003, 2005, among others). Take an instrumental construal like (24) for example: Here we have another case

of a syntax-semantics mismatch, which can once again be paraphrased as a sentence with a lexical light verb *yong* ‘use’, as in (25):

- (24) ni qie na-ba dao, wo qie zhe-ba dao.
 you cut that-CL knife I cut this-CL knife
 ‘You (will) cut with that knife, and I (will) cut with this knife.’

- (25) ni **yong** na-ba dao qie, wo **yong** zhe-ba dao qie.
 you use that-CL knife cut, wo use this-CL knife cut
 ‘You (will) cut with that knife, and I (will) cut with this knife.’

On the assumption that (24) has an implicit light verb USE corresponding to *yong* in terms of both syntax and semantics, as in (26a), we may derive the sentence by raising the verb *qie* ‘cut’ to USE, as sketched in (26b):

- (26) a. ni **USE** na-ba dao qie, wo USE zhe-ba dao qie. [inner light verb]
 you that-CL knife cut wo this-CL knife cut.
 ⇒ b. ni qie_j+**USE** na-ba dao t_j, wo qie_k+USE zhe-ba dao t_k. [raising-to-inner v]
 you cut that-CL knife wo cut this-CL knife

In terms of syntax, the first class of light verbs is most likely to head a functional projection on the CP layer, which we may call “outer light verbs.” The second class, in contrast, presumably heads the *vP* projection. Hence the notion of “inner light verbs.” To really tease them apart, we may employ two syntactic criteria: The first one involves Chinese verb-copying, which is essentially a *vP*-internal phenomenon. Just as our theory predicts, raising-to-CAUSE, where the landing site is beyond the *vP* periphery, is not subject to verb-copying, as evidenced by (27a). In contrast, raising-to-USE is fully compatible with verb-copying, since it only involves an inner light verb position within the *vP* periphery, as evidenced by (27b):

- (27) a.* na-dun fan **chi_k**+**CAUSE** wo **chi_k**-de huomaosanzhang. [outer light verb]
 that-CL meal eat I eat-Res furious
 ‘That meal made Akiu eat such that he became furious.’
 b. wo **qie_k**+**USE** na-ba dao **qie_k**-de zhi maohan. [inner light verb]
 you cut that-CL knife cut-Res continuously sweat
 ‘I used that knife to cut such that I sweat continuously.’

The second test has to do with light verbs’ ability to take various types of postverbal complements; as we have seen in (23), an outer light verb like CAUSE typically involves a resultative construal, presumably encoded by a result projection in the sense of Ramchand (2008). In addition, there is