

Argument Realization: Particularities and Universals¹

Chao Li

City University of New York

The paper shows that although Chinese and English differ in the extent of argument omission, there are universals that govern argument realization in both languages. Such universals are of two types: universals that concern the cases of full realization of arguments in active sentences and universals that are either not contingent on whether arguments are fully or partially realized or about partial realization of arguments alone.

1. Introduction

According to Levin & Rappaport Hovav (2005: 3), argument realization “encompasses all facets of the syntactic expression of arguments of verbs, including the entire range of options for the grammatical relation they may bear, their syntactic category, and their surface morphosyntactic expression.” Levin & Rappaport Hovav list five major questions that need to be addressed by a complete theory of argument realization and one of them concerns the extent to which “nonsemantic factors such as information structure and heaviness govern argument realization” (ibid.).

The purposes of this paper are to discuss the effect of information structure and information load on argument realization and to examine argument realization particularities and universals in this regard. Specifically, the paper will discuss particularities in argument realization that distinguish Chinese and English and propose six universals related to argument realization, almost all of which have something to do with the effect of information structure or information load on the syntactic realization of arguments.

2. Extent of argument omission

Languages differ in argument realization along the dimension of the extent to which arguments can be omitted. A case in point is the difference between Chinese and

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Abbreviations: CL=classifier; EXP=experiential aspect; MM=modifier marker; PERF=perfective aspect; PROG=progressive; QUES=question particle; SFP=sentence-final particle.

English. Specifically, whereas subject-drop and object-drop are often seen in Chinese, they are not common in English. For example, (1a), (1b), and (1c) involve subject-drop, object-drop, and both subject-drop and object-drop, respectively, and all the three Chinese sentences are well-formed. However, as shown in (2), the English counterparts of the three examples are all ungrammatical.

- (1) a. Chi-fan-le ma?
eat-meal-PERF QUES
'Have (you) eaten yet?'
- b. Wo zuotian qu mai [na-ben shu]_i, keshi mei zhaodao ϕ _i.
I yesterday go buy that-CL book but not find
'I went to buy that book yesterday but could not find (it).'
- c. Ji-le ma?
send-PERF QUES
Have (you) sent (it) yet?
- (2) a. *Have eaten yet?
b. *I went to buy that book yesterday but I could not find.
c. *Have sent?

As the omitted subjects and objects are typically topics, one may attribute the more freedom of allowing null subjects and null objects in Chinese to the fact that Chinese is a topic-prominent or discourse-oriented language while English is a subject-prominent or sentence-oriented language (Huang 1984; Li 2004; Li & Thompson 1976; Tsao 1979, 1990). However, the point I want to make is that discourse and syntax are so interrelated in Chinese that one cannot fully understand Chinese syntax and the full range of argument realization possibilities without taking discourse into consideration. In fact, as far as object omission is concerned, it is normally obligatory when the object NP is inanimate, is something under discussion and maximally "active" in the sense of Chafe (1994), and is not in contrast. As shown in (3-4), both *na-ben shu* 'that book' and *zhe-bu xiaoshuo* 'this novel' refer to something inanimate, with the former being something under discussion in (3) and the latter in (4). In addition, no contrast is involved in both examples. In this case, a zero form needs to be used to refer to the entity denoted by *na-ben shu* and *zhe-bu xiaoshuo* respectively, as demonstrated by the ungrammaticality of (3-4) when a pronoun is used.

- (3) Wo zuotian qu mai [na-ben shu]_i, keshi mei zhaodao (*^{/?}ta_i). (cf. (1b))
I yesterday go buy that-CL book but not find it
Intended: 'I went to buy that book yesterday but could not find it.'

- (4) Wo kan-guo [zhe-bu xiaoshuo]_i, ni ye kan-guo (*ta_i) ma?
 I read-EXP this-CL novel you also read-EXP it QUES
 ‘I read this novel before. Did you read it before, too?’

Similarly, as far as written Chinese is concerned, subject-drop is normally obligatory when the omitted subject is coreferential with the object NP introduced in an earlier clause of the **same sentence** and when the clause involving subject-drop is used to provide more information about the object NP of the earlier clause. For instance, as shown in (5-6) below, the subject of the second clause, which is coreferential with the object NP (*henduo pingguo* ‘many apples’ in (5) and *san-ben shu* ‘three books’ in (6)) of the first clause, needs to be omitted to make the sentences grammatical.

- (5) Ta zuotian mai-le [henduo pingguo]_i, (*tamen_i) dou hen haochi.
 he yesterday buy-PERF many apple they all very delicious
 ‘He bought many apples yesterday, and they were all delicious.’
- (6) Ta zuotian jie-le [san-ben shu]_i, (*tamen_i) dou shi
 he yesterday borrow-PERF three-CL book they all be
 Zhongwen de.
 Chinese MM
 ‘He borrowed three books yesterday, and they were all Chinese books.’

As mentioned above, subject-drop and object-drop are not common in English. However, with respect to object-drop, particularly the omission of patient arguments, Goldberg (2001, 2004) observes that although omission of the patient argument is normally bad (as can be seen from (7)), the patient argument can sometimes be omitted. To account for this phenomenon, Goldberg proposes the “Principle of Omission under Low Discourse Prominence” in (8). To illustrate, the patient arguments in (9) can be omitted because (9a) involves repetition of the action, (9b) strong affective stance, and (9c) contrastive focus.

- (7) Goldberg (2001: 512)
 A: What happened to that carrot?
 B: I chopped *(it).
- (8) Principle of Omission under Low Discourse Prominence (Goldberg 2001: 514)
 Omission of the patient argument is possible when the patient argument is construed to be deemphasized in the discourse vis a vis the action. That is, omission is possible **when the patient argument is not topical** (or focal) in the discourse, and the action is particularly emphasized (via repetition, strong affective stance, discourse topicality, contrastive focus, etc.). (emphasis added)

- (9) a. The chef-in-training chopped and diced all afternoon. (Goldberg 2001: 506)
 b. Why would they give this creep a light prison term!? He murdered! (Goldberg 2001: 513)
 c. She could steal but she could not rob. (from the Beatles' song "She Came in Through the Bathroom Window"; via Goldberg 2004: 436)

Note that in Goldberg's principle, being not topical or focal is a necessary condition for patient arguments to be omitted. As shown in (10), the omission of the patient argument (which is coreferential with *they* in the second sentence) in the first sentence and the omitted argument's serving as the topic of the second part of the example are incompatible with each other.

- (10) The chef-in-training chopped and diced all day. *They were put into a large salad. (Goldberg 2001: 511)

However, crosslinguistically being not topical is not a necessary condition for patient arguments to get omitted. Goldberg (2001: 514) herself is aware of this, and she cites Japanese and Korean as examples of languages that allow omission of topical patient arguments. In this regard, we may add that Chinese is another good example of allowing the omission of topical patient arguments, as shown in (11).

- (11) A: Ni-de beizi ne?
 you-MM cup QUES
 'Where is your cup?'
 B: Wo bu xiaoxin shuaisui-le.
 I not careful break-PERF
 'I carelessly broke it.'

In sum, Chinese and English differ in the extent of argument omission,² and crosslinguistically being not topical is not a necessary condition for patient arguments to get omitted. In addition, the particularities in argument realization in languages like Chinese clearly show that to give a full account of argument realization in such languages, it is necessary to take discourse factors into consideration.

² As pointed out by Goldberg (2004: 435), "omissibility and non-omissibility of arguments is clearly conventional in that languages differ in whether or not recoverable arguments can be omitted." In addition to English, Goldberg cites the following languages to support her argument: (i) Hindi, which allows continuing topics and backgrounded information to be omitted; (ii) Hebrew, in which discourse topics, whether in subject or object position, can be omitted; (iii) Brazilian Portuguese, in which argument omission is subject to both discourse and lexical semantic factors.

3. Universals of argument realization

While Chinese and English are different in argument omission, there are principles or universals of argument realization that hold of both languages and others. I argue that such universals are of two types. First, there are universals that concern the cases of full realization of arguments in active sentences. Second, there are also universals that are not contingent on whether arguments are fully or partially realized, and universals that concern partial realization of arguments alone.

3.1. Type I universals

Type I universals concern full realization of arguments. Specifically, when arguments are fully realized, the agent argument is always expressed in subject position and the patient argument in object position as far as canonical active transitive sentences are concerned (cf. Grimshaw 1990: 33, Levin & Rappaport Hovav 2005: 21, Tenny & Pustejovsky 2000: 15). Full argument realization refers to the cases in which all arguments are realized as distinct NPs and none of them is incorporated or realized as a clitic or affix alone. A transitive sentence is canonical if it follows the basic or canonical order attested in a specific language. Sentences in (12) illustrate the first type of universals. In both (12a) and (12b), the kicker, i.e. the agent argument, is realized in the subject position, and the kickee, i.e. the patient argument, is expressed in the object position.

- (12) a. He kicked me.
 b. Ta ti wo.
 he kick I
 ‘He kicked me.’

Moreover, when the causer and the causee are involved, the former is realized in subject position and the latter in object position (cf. Grimshaw 1990, Li 2008, Tenny & Pustejovsky 2000). The sentences in (13) all involve a simplex causative predicate that is not a psych-verb and the sentences in (14) all involve a simplex psych causative predicate. In both (13) and (14), the causer is realized in the subject position, and the causee is overtly expressed in the object position.

- (13) a. He broke the window.
 b. Il a cassé la fenêtre. (French)
 he has broken the window
 c. Er zerbrach das Fenster. (German)
 he broke the window
 d. Él rompió la ventana. (Spanish)
 he broke the window

- (14) a. Her words moved the old man.
 b. Ta-de hua gandong-le na-wei lao ren.
 she-MM words move-PERF that-CL old man
 c. Ses mots ont ému le vieil homme. (French)
 her words have moved the old man
 d. Ihre Worte bewegten den alten Mann. (German)
 her words moved the old man
 e. Sus palabras emocionaron al viejo hombre. (Spanish)
 her words moved the old man

In addition to simplex causative predicates, complex causative predicates also require the causer and cause arguments to be realized in the subject and object positions, respectively. This is shown by the resultatives in (15), which involve a complex predicate and have a causative and resultative interpretation.

- (15) a. He wiped the table clean.
 b. Ta ca-ganjing-le zhuozi.
 he wipe-clean-PERF table
 c. Er wischte den Tisch sauber. (German)
 he wiped the table clean

3.2. Type II universals

In addition to universals that concern the cases of full realization of arguments in active sentences, there are also universals that either are not contingent on whether arguments are fully or partially realized or concern partial realization of arguments alone. For such cases, five universals can be proposed.

First, arguments in contrast need to be overtly realized unless (i) there is already a contrastive focus that bears heavy stress, (ii) the language in question allows object deletion or VP deletion, (iii) the contrastive arguments have the same linguistic form, AND (iv) no pointing is involved. Contrastive arguments need to be overtly realized due to the needs of expression of the speaker and to the speaker's need of drawing the hearer's attention. In (16-17), for example, the arguments in overt contrast are in bold and they are all overtly expressed. Note that the arguments in contrast are not necessarily the focus of the sentences under consideration. In fact, *Zhangsan* and *Lisi* in (16a), for instance, are arguably contrastive topics, although *pingguo* 'apple' and *putao* 'grape' are contrastive focal elements.

- (16) a. **Zhangsan** xihuan **pingguo**, **Lisi** xihuan **putao**.
 Zhangsan like apple Lisi like grape
 'Zhangsan likes apples and Lisi likes grapes.'

- b. **John** likes **apples** and **Mary** likes **grapes**.
- c. **John** aime les **pommes** et **Mary** aime le **raisin**. (French)
 John likes the apples and Mary likes the grape
- d. **John** mag **Äpfel** und **Mary** mag **Trauben**. (German)
 John likes apples and Mary likes grapes
- e. A **Juan** le gustan las **manzanas**
 to Juan to.him/to.her please the apples
 y a **Mary** le gustan las **uvas**. (Spanish)
 and to Mary to.him/to.her please the grapes
 ‘John likes apples and Mary likes grapes.’
- (17) a. **Zhangsan** shi xuesheng, **Lisi** bu shi.
 Zhangsan be student Lisi notbe
 ‘Zhangsan is a student and Lisi is not.’
- b. **John** is a student and **Mary** is not.
- c. **John** est étudiant, **Mary** ne l’est pas. (French)
 John is student Mary not CLITIC.is not
- d. **John** ist ein Student und **Mary** ist das nicht. (German)
 John is a student and Mary is that not
- e. **Juan** es un estudiante y **Mary** no lo es. (Spanish)
 Juan is a student and Mary not it is

It should be pointed out that contrastive arguments can be omitted if they meet the four conditions listed above. For example, the argument *ziji-de mama* ‘own mother’ can be omitted in the second part of the sentence in (18) when Lisi’s mother is not present when the sentence is uttered and when no pointing toward her is involved.

- (18) Zhangsan xihuan ziji-de mama, keshi Lisi bu xihuan ϕ .
 Zhangsan like own-MM mother but Lisi not like
 ‘Zhangsan likes his own mother, but Lisi does not.’

Note that in (18) the omitted argument has the same linguistic form as the argument with which it forms a contrast, although it refers to Lisi’s mother, not Zhangsan’s. Moreover, (18) already involves a contrastive focus on the main or auxiliary verbs. That is, *xihuan* ‘like’ and *bu xihuan* ‘not like’ form a pair of contrastive foci.³ Finally, as seen above,

³ The relevance of this pair of contrastive foci can be seen clearly from the fact that the object of the second part of (18), when having the same linguistic form as the object of the first clause but having a different referent, needs to be overtly expressed when no such contrastive foci have already existed, as shown in (i).

Mandarin allows object NP deletion. As a result of meeting all the four conditions, example (18) is grammatical in Mandarin.⁴ Similarly, in (19) the object of the second part of the sentence together with the main verb can be omitted when pointing toward Mary's mother is not involved right after *does not* is uttered. The only relevant difference between (18) and (19) is that the former involves object deletion and the latter VP deletion.

(19) Emily likes her mother, but Mary does not.

Second, focal arguments without overt contrast also need to be expressed. As pointed out by Goldberg (2001: 514, 2004: 434), crosslinguistically and more generally focal elements cannot be omitted. Goldberg attributes this to focal elements' unpredictability from context. However, a more straightforward explanation is that the focal element carries the most important information and is what the speaker wants to express most. That is, the fact that focal elements cannot be omitted is also due to the speaker's need of expression. As shown in (20), the focal element, which bears heavy stress and is in bold face is overtly expressed. Note that unlike (16), none of the examples in (20) involves overt contrast, though they may convey some sort of implicit contrast.

- (20) a. Zhangsan xihuan **pingguo**.
 Zhangsan like apple
 'Zhangsan likes apples.'
 b. John likes **apples**.
 c. John aime les **pommes**. (French)
 John likes the apples
 d. John mag **Äpfel**. (German)
 John likes apples
 e. A Juan le gustan las **manzanas**. (Spanish)
 to Juan to.him/to.her please the apples

Third, as shown in (21-22), all languages allow for the possibility of omitting an object NP when it is indefinite and nonspecific AND when the statement is generic. In both sets of examples, the entity that gets bitten or kicked is omitted.

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- (i) Zhangsan xihuan ziji-de mama, Lisi ye xihuan ^{*/?}(ziji-de mama).
 Zhangsan like own-MM mother Lisi also like own-MM mother
 'Zhangsan likes his mother and Lisi likes his mother, too.'

⁴ Sentence (18) would be bad if Lisi's mother is present when the sentence is uttered and when there is pointing toward her right after *bu xihuan* is uttered. The reason for this is that the entity being pointed at, whether forming a contrast with another entity or not, forms a focus and thus needs to be expressed with a certain linguistic form.

- (21) a. Dogs can bite when they are irritated.
 b. Gou ji-le hui yao.
 dog irritated-INCHOATIVE will bite
 c. Les chiens peuvent mordre quand ils sont énervés. (French)
 the dogs can bite when they are irritated
 d. Hunde können beißen, wenn sie genervt sind. (German)
 dogs can bite when they irritated are
 e. Los perros pueden morder cuando ellos están irritados. (Spanish)
 the dogs can bite when they are irritated
- (22) a. Donkeys can kick.
 b. Lü dou hui ti.
 donkey all can kick
 c. Les ânes peuvent ruer. (French)
 the donkeys can kick
 d. Esel können treten. (German)
 donkeys can kick
 e. Los asnos pueden cocear. (Spanish)
 the donkeys can kick

With respect to (21-22), some words about the Mandarin examples are in order. It is true that in Mandarin the object is typically overtly expressed with *ren* ‘person, people’ or *dongxi* ‘things, something’ when it is indefinite human beings or indefinite inanimate entities respectively, as shown in (23).⁵ However, the point I want to make is that Mandarin, like other languages, also allows omission of indefinite nonspecific objects in a generic statement as evidenced by (21-22), although this omission is not as common as in many other languages. Moreover, it should be pointed out that in (21-22) the omitted object does not have to refer to human beings alone, animate entities alone, or inanimate entities alone. Rather, what is bitten and kicked in this case may be animate or inanimate.

⁵ Note that in the formation of relative clauses, however, the head noun is typically omitted when it refers generically to inanimate entities alone or both animate and inanimate entities, as shown in (ia) and (ib) respectively. Thus, (23) and (i) show two opposite conventions attested in Mandarin Chinese.

- (i) a. Gou chi-de gen ren chi-de zenme neng yiyang?
 dog eat-MM with people eat-MM how.come can same
 ‘How come the things that dogs eat are the same as those that people eat?’
 b. Ni xihuan-de, wo dou bu xihuan.
 you like-MM I all not like
 ‘I like none of what you like.’

- (23) a. Gou hui yao ren.
 dog can bite people
 ‘Dogs can bite people.’
 b. Wo ji dianr dongxi.
 I send some things
 ‘I’m sending something.’

Fourth, as illustrated in (24-25), all languages allow for the possibility of omitting an object NP when the action involved is repetitive.⁶ This is because the repetition of the action has the effect of emphasizing the action and deemphasizing the entity being acted upon, thus making it possible to leave out the object NP (cf. Goldberg 2001, 2004).

- (24) a. He chopped all afternoon.
 b. Ta zhengge xiawu dou zai kan.
 he whole afternoon all PROG chop
 c. Il a coupé tout l’après-midi. (French)
 he has chopped all the.afternoon
 d. Er hackte den ganzen Nachmittag. (German)
 he chopped the whole afternoon
 e. Él cortó toda la tarde. (Spanish)
 he chopped all the afternoon
- (25) a. The child scratched and bit until his mother arrived.
 b. Na-ge xiaohair youshi zhua, youshi yao,
 that-CL child not.only scratch but.also bite
 yizhi dao ta mama lai-le cai tingxialai.
 continuously until he mother come-INCHOATIVE EMPHASIS stop
 c. L’enfant a griffé et mordu jusqu’à ce que
 the.child has scratched and bit until
 sa mère arrive. (French)
 his mother arrived
 d. Das Kind kratzte und biss bis die Mutter ankam. (German)
 the child scratched and bit until the mother arrived
 e. El niño arañó y mordió hasta que su madre llegó. (Spanish)
 the child scratched and bit until his mother arrived

⁶ For languages like English which normally do not allow object drop, examples like (24a) are not acceptable to some speakers. Even so, there is a clear contrast in acceptability between (24a) and (i), which even does not implicate that the action is repetitive.

(i) *He chopped.

Finally, with respect to argument realization, structure constrains override discourse influence. For example, although as shown earlier and in (26), object-drop in Chinese is possible when the canonical order “Subject + Verb + Object” is used, it cannot occur when the *ba*-construction is employed, as shown in (27). In the latter case, the NP introduced by *ba* cannot be omitted, although the *ba*-NP normally corresponds to the direct object NP of a sentence with the canonical order.

- (26) A: Na-feng xin ne?
 that-CL letter QUES
 ‘Where’s that letter?’
 B: Wo ji-zou-le.
 I sent-away-PERF
 ‘I sent it out.’
- (27) A: Na-feng xin ne?
 that-CL letter QUES
 ‘Where’s that letter?’
 B: Wo ba *(ta) ji-zou-le.
 I BA it sent-away-PERF
 Intended: ‘I sent it out.’

For another example, the object NP of the first or main verb of the pivotal construction cannot be omitted either, as shown in (28).

- (28) a. Ta qing *(wo) qu kan dianying.
 he invite I go watch movie
 ‘He invited me to watch a movie.’
 b. Ta rang *(wo) gaosu ni ta bu lai le.
 he ask I tell you he not come SFP
 ‘He asked me to tell you that he would not come.’

4. Conclusions

To conclude, while Chinese and English differ in the extent of argument omission, there are universals that govern argument realization in Chinese, English, and other languages. We have seen that such universals are of two types, with Type I universals being about full realization of arguments in active sentences and Type II universals being either not contingent on whether arguments are fully or partially realized or about partial realization of arguments alone. While more languages need to be investigated to confirm or disprove the universals proposed, we have seen initial evidence for the universals from Chinese, English, French, German, and Spanish.

In addition, the particularities in argument realization in languages like Chinese clearly show that to give a full account of argument realization in such languages, it is necessary to take discourse factors into consideration, the factors that also affect argument realization in languages like English, thought to a much lesser degree.

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