## On Hakka BUN: A Case of Polygrammaticalization\*

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BUN in Hakka exhibits multiple grammatical functions. The paper maintains that BUN illustrates a good example of polygrammaticalization. Like a prototypical double-object verb, BUN involves dative alternation that brings out two separate functional paths of BUN. From the first frame, BUN is decategorized from a full-fledged verb of giving, through a goal marker, into a clause-linking complementizer. Along the structural development, BUN extends its meaning from denoting a giving activity, through marking the given object, to marking more abstract goal and purpose. From the latter, BUN is developed from a verb-of-giving into a causative verb and then into an agent marker. Due to the parallelism between the conceptual structures embodied in possession and control, the meaning of giving someone something is transferred into giving someone the permission to do something. Along this transfer-of-control argument, the meaning of BUN then develops into agent marking.

Key words: Hakka, grammaticalization, polygrammaticalization, dative shift, BUN

#### 1. Introduction

Grammaticalization is usually defined as a process whereby lexical items and constructions assume in certain linguistic contexts grammatical functions, and once grammaticalized, continue to develop more grammatical functions. (Hopper & Traugott 1993, Heine et al. 1991) Not only have various principles of the theories in general been proposed, but important studies have also been done to discuss how a process has taken place cross-linguistically from both diachronic and synchronic perspectives.

Among the characteristics of grammaticalization, unidirectionality has been coined as the major tendency for structural properties. The grammaticalized process

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proceeds along certain likely clines in which major categories decategorized into minor ones. In addition to single clines, some cases of grammaticalization show development along two or possibly more different clines. The term polygrammaticalization given by Craig (1991) is henceforth used to refer to the phenomenon where a single form is the source of multiple grammaticalization chains, as illustrated by the data from Rama. Givón (1991) also shows data from Biblical Hebrew where relative clauses develop into both adverbial clause domains and complementizer domains.

From a semantic point of view, grammaticalization processes have been claimed to be processes of metaphorical abstraction. As Heine et al. (1991) maintain, the processes usually follow a metaphorical abstraction scale whereby the denotations, operated by abstraction and similarity, extend from conceptually concrete domains to less concrete domains. Cross-linguistic examples have been illustrated by Heine et al. (1991) and Hopper & Traugott (1993), among others.

Furthermore, reanalysis and analogy are deemed to be two major mechanisms involved in a grammaticalization process, both syntactically and semantically. Essentially involving syntagmatic reorganization, reanalysis, as defined by Langacker (1977:58), refers to "change in the structure of an expression or class of expressions that does not involve any immediate or intrinsic modification of its surface manifestation." On the other hand, essentially involving paradigmatic organization, analogy refers to the generalization through already existing constructions or patterns of usage. (cf. Hopper & Traugott 1993)

Although the descriptions above are rather simplistic of the general pictures of grammaticalization, they should suffice for the purpose of this study, which is to focus on building up grammaticalization clines of a particular morpheme in a specific language. More specifically, the major aim of this study is, through an investigation of a particular polysemous morpheme *bun* in Hakka, to account for adequately the fact that a single morpheme may be the source of development in different functional domains.

The Hakka verb *bun* means 'give' in its basic sense.<sup>1</sup> The same form can occur in various constructions where it adopts different grammatical functions, as illustrated below:

According to Luo (1998), there are approximately three million Hakka people in Taiwan, who occupy one-fifteenth of the total population in Taiwan. Hakka is mainly spoken in Taiwan and some areas in Mainland China as well. There are some dialectal differences among various sub-dialects of Hakka. The data presented in this study are based on the Sixian Northern Hakka, mainly spoken in Miaoli County, Taiwan.

- (1) a. Gi bun yi gi bid ngai.<sup>2</sup> he BUN one CL pen me 'He gave a pen to me'.
  - b. Gi bun ngai yi gi bid. he BUN me one CL pen 'He gave me a pen'.
  - c. Gi sung yi gi bid bun ngai. he give one CL pen BUN me 'He gave a pen to me'.
  - d. Gi dai dung-xi bun geu-e sid. he bring thing BUN dog eat 'He brought food for the dog to eat'.
  - e. Gi voi bun ngai hi toibed. he would BUN me go Taipei 'He would let me go to Taipei'.
  - f. Gi bun ngai da. he BUN me beat 'He was beaten by me'.

The data above present a puzzling range of uses.<sup>3</sup> In addition to the only main verb function as in (1a) and (1b), bun can appear in four other constructions, in which it indicates different functions.<sup>4</sup> The uses in (1c) and (1f) appear to be in opposites: in the former bun is a goal marker, denoting the following noun phrase as a recipient of a transaction, whereas in the latter it is an agent marker, indicating that the following noun phrase is the one who performs the action. In (1d), bun acts like some kind of a complementizer, linking two clauses; in (1e), it acts like a causative marker.

With regard to these phenomena, a few questions need to be answered. In

<sup>&</sup>lt;sup>2</sup> Pinyin system is used to render the Hakka pronunciation. The distinction between [k-] and [g-] is used to indicate a difference in aspiration. The following abbreviations are used for their corresponding grammatical functions: CL, classifier; NEG, negation marker; ASP, aspect markers.

Like Taiwanese Southern Min, Hakka has a construction where bun seemingly functions like a benefactive marker: Nga lomoi bun gi zo bungion 'My sister was given to him as a wife'. But I consider bun in this case to be a verb with a topicalized direct object. I thank Chinfa Lien, who brought this example to my attention. I also thank Ting-chi Tang for his comment on this phenomenon.

Example (1a) illustrates a unique feature of double-object constructions in Hakka; that is, the direct object can precede a pronominal indirect object without being mediated by an adposition. I owe the explication of this phenomenon to one of the reviewers.

particular, what links one function to another, at times seemingly contradictory functions? How does semantic extension, together with syntactic decategorization, occur? And what are the essential principles in grammaticalization that can best account for the semantic relatedness exhibited by the polysemous functions of *bun* in Hakka? To propose plausible accounts for these questions, this study is organized as follows. Section 2 examines *bun* constructions in the verb-to-complementizer path. Section 3 discusses the verb-to-agent marker path. Typological comparisons involving Rama, Mandarin and Tibeto-Burman languages, inter alia are discussed in the fourth section, which also includes theoretical implications of grammaticalization, and a conclusion.

## 2. The verb-to-complementizer cline

Like a prototypical verb that inherently signifies acts of giving, bun, carrying two internal arguments, has the thematic structure <agent theme goal>. These verbs typically involve dative alternation because they allow more than one way of expressing the two arguments. The dative alternation is characterized by an alternation between the prepositional frame in which the goal is linked to an oblique prepositional phrase 'NP1 to NP2', using English as an illustration, and the double object frame whereby the goal is linked to an indirect object 'V NP2 NP1.' (cf. Levin 1993) I will argue that it is exactly this alternation that brings out the two separate functional paths of bun. From the former frame, bun develops from a full-fledged verb of giving, through a goal marker, to a clause-linking complementizer. From the latter frame, bun develops from a verb of giving, through a causative verb, then to an agent marker. I will come to the discussions below.

## 2.1 From verb to adposition

As shown by examples in (1a) and (1b), it is a peculiarity of Hakka to allow a flexible word order between direct and indirect objects. To elucidate, it is worthwhile considering the origin of the verb bun. Documented in Zuozhuan (左傳), bun, functioning as a double-object verb, originally meant 'give something to someone', especially donations to the poor.<sup>5</sup> Later on, a common context for it to be used is for a father to divide his property, for instance money or fields, and then to give them to his offspring, as in the following example:

<sup>&</sup>lt;sup>5</sup> Zuozhuan (左傳) is a historical document written between the eighth to fourth centuries B.C. Luo and Luo (1984:174-75) point out that in Zuozhuan, bun means 'give' (與也), as in bun ping zhen kiung (分貧振窮) 'give things to the poor to help relieve poverty.'

(2) Gia ba bun yi kiu tien gi. his father BUN one CL field him 'His father gave a piece of field to him.'

Then from dividing concrete objects into parts and giving the parts to someone, *bun* is extended to express any act of giving, including whole objects as illustrated by (1a), in which a pen is given. The sentence in (2), a typical double object construction, can undergo dative alternation, resulting in another frame as shown by the sentence in (1b). I shall discuss (1b) later in section 3.

Besides the construction in (2), there is another construction given below, in which *bun* can occur twice—the first one marking the theme and the second one marking the recipient, forming a serial verb construction:

gi.6 kiu tien (3) Gia ba bun vi bun his father BUN one CL field BUN him 'His father gave a piece of field to him'.

As shown in the gloss, bun is repeated here to express emphatically to give something to the recipient. When occurring in a serial verb construction, the second bun undergoes decategorization, losing its verbal status. Hopper and Thompson (1984) maintain that lexical categoriality such as nouns and verbs should be determined in terms of their prototypical discourse functions. A prototypical verb is to assert the occurrence of an event as if to answer the question 'what happened?' Hence in terms of serial verbs, they state (pp.734-35):

A V form which shares "the spotlight" with another is less like a V in reporting an event than one which reports the event by itself. A single V in a series cannot convey what "happened" in the discourse in which it occurs.

They also maintain that "V's with certain types of meanings—e.g., 'take', 'hold', 'give', and 'use'—may lose so much categoriality in a serial construction that they are no longer clearly distinguishable from prepositions or case-markers." (p.735)

From this perspective, the serial verb construction as illustrated in example (3), where two *bun*'s co-occur, provides an environment for *bun* to lose its verbhood. Obviously, the second occurrence of *bun*, losing in the competition, becomes a less

It seems that the corresponding Mandarin morpheme *gei* and the corresponding Taiwanese Southern Min morpheme *hou* do not tolerate such a co-occurrence; cf. Hwang 1997.

prototypical verb than the main verb bun. It is eventually decategorized, losing its verbhood, but acquiring the grammatical status of adposition; cf. Sweetser 1988. The following tests of verbhood by negation and aspect markers can clearly illustrate the point:

- (4) Gia ba mo bun yi kiu tien gi. his father NEG BUN one CL field him 'His father didn't give one piece of field to him'.
- (5) Gia ba bun yi kiu tien (\*mo) bun gi. his father BUN one CL field NEG BUN him 'His father didn't give one piece of field to him'.
- (6) Gia ba bun-e yi kiu tien gi. his father BUN-ASP one CL field him 'His father gave one piece of field to him'.
- (7) Gia ba bun yi kiu tien bun-(\*e) gi. his father BUN one CL field BUN-ASP him 'His father gave one piece of field to him'.

The examples show that it is always the first occurrence of *bun* that allows a negative morpheme and an aspect marker. The second occurrence of *bun*, behaving just like other adpositions, do not carry these verbal features.<sup>7</sup>

The adposition status of *bun* can then be generalized to co-occur with other double object verbs that allow dative shift to mark the oblique indirect object, such as *sung* 'give', *gi* 'mail' and so on—namely those that correspond to the second type of double object verbs classified in Mandarin by Her (1997); cf. also Tang (1985). Examine the following example in (8):

<sup>&</sup>lt;sup>7</sup> The development from a verb into an adposition is widespread in Mandarin Chinese. The term 'co-verbs' to cover some verb-like and preposition-like morphemes is henceforth suggested by Li (1975). See also Chang (1977) and Zhang and Fang (1996).

There is another construction where *bun* NP can be optionally moved into the position right after the verb. But due to haplology, the verb cannot be *bun* itself. I owe the observation to James Tai, who raised this question with me at IsCCL-7. Now consider the following example.

Gi sung-bun ngai yi gi bid. he give-BUN me one CL pen

<sup>&#</sup>x27;He gave me a pen'.

There is an argument about the status of *bun* in this structure: whether it is a verbal suffix as held by Newman (1993) among others, or whether it should be treated as a verbal root in a compound as maintained by Her (1997) among others. Since this issue is not the major concern in the study, I will not go into details about it.

(8) Gi gi yi gi bid bun ngai. he mail one CL pen BUN me 'He mailed a pen to me'.

What has been presented indicates the following procedure: first, a serial verb construction provides an environment for *bun* to occur repeatedly. Then, by provoking the adposition construction in Hakka grammar, the second *bun* is reanalyzed as a goal-marking adposition. Subsequently, through analogy, the goal-marking function of *bun* spreads to other double object verbs that allow dative-marking frames. The process can be represented as follows:

(9)Stage I: BUN as a verb in a serial verb construction Gia ba bun yi kiu tien [bun gi]. VNPBUN as a goal-marking adposition (by reanalysis) Stage II: Gia ba bun yi kiu tien [bun gi]. P NPStage III: BUN in other double-object constructions (by analogy) Gi gi yi gi bid [bun ngai]. P NP

## 2.2 From adposition to complementizer

The serial verb construction, leading to bun's loss of verbhood and thus becoming an adposition, prepares it to become a marker for clause linking since it loses its semantic and pragmatic significance in reporting sequential events. As Cristofaro (1998:64) claims, there seems to be a tendency to decrease the number of predicates in main clauses. Hence "multiple-verb constructions are transformed into single-verb clauses, and new syntactic categories (complementizers) must be introduced in order to code the connections formerly indicated by ... verb serializations." Now since the double object construction involves giving an object to a recipient, there must be some kind of purpose for the recipient to receive the thing that is given. Hence, it is very natural to add a predicate signaling a future or potential action right after the recipient marked by bun. If that is the case, then the recipient NP will turn out not only to be the recipient, who receives the object, but also the agent who performs the action indicated by the second predicate. For instance, the situation denoted by example (3) can be easily extended into a scenario like the one below, in which the predicate gang 'cultivate' is added after the recipient to indicate the purpose of his father's giving the field to him:

(10) Gia ba bun kiu tien νi bun gi gang. one CL his father BUN field BUN him cultivate 'His father gave one piece of field for him to cultivate'.

In such a case, attracted by the infinitive function denoted by the following predicate, bun can therefore be reanalyzed as a clause linking connector—from a goal adposition to a purpose subordinator—with the clause introduced by bun downgraded into a subordinate one. The same analysis can be applied to example (1d), in which the verb sid 'eat' indicates the purpose of giving things to the dog. The syntactic mechanism employed here is again through reanalysis. After the establishment of its complementizer status, the clause-linking function of bun, through analogy, spreads to other patterns. The example in (11) can illustrate.

(11) Oi sid bun gi bao. ⇒ Oi sid bi bao. have to eat BUN it full '(You) have to eat for your stomach to become full'.

As indicated by the example in (11), not only does the complementizer function of bun spread to other constructions, but bun is also, in colloquial version, undergoing coalescence, in which it is collapsing with the following adjacent pronoun into a single morpheme (bun  $gi \Rightarrow bi$ ). Along with its syntactic decategorization into a clause-linking complementizer, bun also undergoes phonological coalescence, which is one of the typical features in grammaticalization cross-linguistically; cf. Lehmann 1985. In fact, along a similar line of argument, Givón (1991:826) holds that "the more two events/states are integrated semantically or pragmatically, the more will the clauses that code them be integrated grammatically." Noonan (1985:47-8) also notes that the use of a dative marker as a complementizer is widespread especially when the second predicate indicates a future action. Bun, expressing transactions, has as part of its meanings a goal, the prospective action following the transaction, hence involving its reanalysis into a purpose complementizer. While the process has been identified in other languages, it provides additional empirical data about the source and evolution of complementizers in some languages of the world; cf. Genetti 1991, Craig 1991. Now the operation of the two mechanisms can be explicitly represented as follows in (12):9

<sup>&</sup>lt;sup>9</sup> I thank Kawai Chui, whose comments helped shape the analysis presented in (12).

(12) Stage I: BUN as a goal-marking adposition

Gia ba bun yi kiu tien [bun gi] [gang].

$$P$$
  $NP$  (object)  $V$ 

Stage II: BUN as a complementizer (by reanalysis)

Gia ba bun yi kiu tien [bun [gi gang]].

 $COMP$   $NP$  (subject)  $V$ 

Stage III: BUN spreading out its complementizer function (by analogy)

Oi sid [bun [gi bao]].  $\Rightarrow$  Oi sid [bi bao].

 $COMP$   $NP$  (subject)  $V$ 

In summary, the two sections above have presented a process of grammaticalization that involves a verb of giving developing into a goal-marking adposition and then into a complementizer introducing a purpose. The process forms one cline of development of bun, as indicated below:

(13) Verb > Adposition > Complementizer

#### 2.3 Semantic extension

In light of the cline, the meaning extension of bun is quite straightforward. Bun with its very original meaning, denotes giving, from concrete objects to anything that can be involved in an act of giving. As indicated by its thematic structure, an act of giving can be characterized by a typical scenario: a person has some thing to pass over to another person. When co-occurring with another predicate, bun, decategorized into an adposition, is now used to denote the goal of giving—the person who is given the object to. The goal-denoting meaning is extended then to denote a purpose, along with its syntactic development into a complementizer. As argued above, there must be some kind of purpose behind the giving behavior—X giving Y to Z so that Z can do something with Y. Since the antecedent proposition can be considered as a source for the consequent proposition denoting the action of giving, and a purpose may be metaphorically conceived as the goal of giving, it is thus very feasible for bun to extend its semantics from a goal marker to a marker that will introduce a purpose. The meaning extensions of bun display a scale of a metaphorical abstraction illustrated in the following (cf. Heine et al. 1991):

#### (14) Object > Goal > Purpose

The pattern indicates that bun, denoting an activity of giving, extends from marking the

thing that is given, to more abstract domains of goal and purpose as it proceeds from coding relations between arguments to relations between propositions.

## 3. The verb-of-giving-to-agent-marker cline

After discussing the development of the first cline, now we are ready to discuss the development from *bun* as a verb of giving into an agent marker. Remember that *bun*, undergoing dative alternation, can have the second frame with the indirect object occurring first followed by the direct object, as illustrated in (1b). Moreover, it can also have the causative use as in (1e) and (1f). The examples are repeated below.

- (15) Gi bun ngai yi gi bid. he BUN me one CL pen 'He gave me a pen'.
- (16) Gi voi bun ngai hi toibed. he would BUN me go Taipei 'He would let me go to Taipei'.
- (17) Gi bun ngai da. he BUN me beat 'He was beaten by me'.

The question now is how bun develops the other two functions from verb of giving. Recall that a verb such as bun involves three arguments, the giver, the thing being given, and the recipient. In other words, through an act of giving, the possession of the object is changed from the giver to the recipient. That is, the controller of the object is transferred from the giver to the recipient; cf. Newman 1993. Now the passing-over meaning can be easily extended from a noun phrase to a verb phrase. Therefore, the meaning of giving someone something is transferred into giving someone the permission to do something. As in example (16), bun refers to the transfer of control over the act of going to Taipei and hence the speaker has the control of going to Taipei. As Newman (1993:468) maintains, the parallelism between the conceptual structures embodied in possession and [control] motivates the co-existence of these two senses—the giving sense and the causative sense.

Now once the causative sense is established, it is straightforward to see why *bun* will become an agent-marking preposition eventually. As illustrated by example (17), there are two predicates in the sentence. Again, as argued above, the competition of verbhood between *bun* and the second predicate happens in this serial verb construction, just like other serial verb constructions. And *bun* loses out its verbal status,

decategorized into a preposition. But how does it pick up the agent-marking sense?

Here I would like to maintain the transfer-of-control argument adopted from Newman (1993). Once the subject allows the object to take over the power to do whatever is indicated by the second predicate, the object has the control over the action denoted. Since the subject is willing to give away the control of the action to the object, he must be able to tolerate what the object is going to do. Thus, if the action done by the object has some impact on the subject, then the meaning of *bun* acquires an agent-marking sense—indicating the *bun* NP has done something to affect the subject. Hence, the original object turns out to be the agent of the action; hence, the passive construction comes about. The path of semantic change of *bun* can be illustrated in (18); cf. Newman 1993.

- (18) a. The subject explicitly gives the object the chance to do something. (causative sense)
  - b. The subject tolerates the object's doing something.
  - c. The subject is such that the object does something to the subject. (passive sense)

The structural as well as the semantic path of bun can thus be represented as follows:

### (19) Verb-of-giving > Verb-of-causative > Agent marker

Before I discuss the implications for the general study of grammaticalization, I would like to point out one significant difference between Tsao's (1988) analysis of the rise of the agent marker in Taiwanese Southern Min and my analysis of bun as an agent marker in Hakka. In analyzing the corresponding morpheme hou in Taiwanese Southern Min, a morpheme marking both goal and agent, he proposes that hou as an agent marker in the passive construction is derived from its being a goal marker. He argues that the take-type transactional ditransitive verbs such as iaN 'win' and phian 'cheat' feed the change of hou's function. The process can be demonstrated with the following sentences adopted from Tsao (1988:191, (63))

- (20) a. keng-chhat hoat goa lak-pah khou. policeman fine me six-hundred dollar 'The policeman fined me six hundred dollars'.
  - b. goa hou keng-chhat hoat lak-pah khou.

    I HOU policeman fine six-hundred dollar 'I was fined six hundred dollars by the policeman'.

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He maintains that *hoat* 'fine', a take-type verb, has its direct object as both a goal and a patient. Since all sentences of this type indicate situations adverse to the subject, it is in this type of sentence that the passive construction comes about.

There are two points to show my analysis is more plausible. First, Tsao's analysis indeed complicates the grammar in terms of the word order since a goal phrase marked by *hou*, an oblique indirect object, always occurs postverbally, just as in Mandarin Chinese and Hakka among many other languages. When undergoing dative shift, as in the second frame (V NP2 NP1), no marker is needed to mark the indirect object. To complicate the grammar, Tsao has to say that the *hou* phrase occurs preverbally in the take-type of verb but postverbally with other types of ditransitive verbs. Under my analysis, the goal-marking function and the agent-marking function, although coming from two different sources, are subsumed under one general principle—the decategorization of verbhood in a serial verb construction.

The fact that my analysis simplifies the grammar and hence gains more generalization can be further supported by two other studies by Li & Thompson (1976) and Peyraube (1989). Both studies point out, with diachronic evidence, that during the Tang dynasty (seventh to ninth centuries A.D.), the preverbal preposition emerged at the cost of the collapse of serial verb constructions (S V O V  $\rightarrow$  S case marker O V). The decategorization of the first verb into a case marker took place in several places: bei [+V] > bei [+Prep], ba [+V] > ba [+Prep], and yu [+V] > yu [+Prep], among others. <sup>10</sup> My proposal of Hakka bun's emergence as an agent marker from the verb of giving corresponds to a general typological syntactic change in other Chinese languages.

Second, the semantic extension based on conceptual parallelism links naturally the development from a verb of giving, through a verb of causative, to an agent marker. Tsao's analysis seems to offer no account for the semantic relatedness of the two functions denoted by the same morpheme.

## 4. Concluding remarks

## 4.1 Implications for the general study of grammaticalization

In this paper, I have presented a study of the typical double object verb bun in Hakka, which undergoes a functional shift whereby it develops its grammatical status. I have further argued that there are two grammaticalization paths for bun, due to the two typical frames by dative alternation of bun. A number of features characteristic of grammaticalization can be found in the present study, which I will discuss below, with

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A preposition bei marks an agent, a preposition ba marks a patient, and a preposition yu marks a location.

reference to similar phenomena found cross-linguistically.

First of all, as mentioned in the introduction, in each of the two clines, the verb-to-complementizer cline and the verb-of-giving-to-agent-marker cline, the development is unidirectional; namely, bun undergoes a decategorized process in which it loses its verbhood; Hopper & Traugott 1993, Hopper 1991. In addition, bun shows that one form assumes several distinctive functions, from verb to other grammatical functions. The phenomenon reflects what Hopper (1991:22) refers to as divergence, when an entity, undergoing grammaticalization, results in pairs or multiples of forms which share a common etymology, but diverge functionally. Moreover, the study of bun illustrates a good example for the principle of persistence, since bun, originally a verb meaning 'giving', is moving toward an adposition, and later a complementizer. Or it is moving from a verb to an agent marker. Either case reflects a polysemous morpheme during the intermediate stages of grammaticalization; cf. Hopper 1991:22.

Another similarity between the data in the present study and typical cases of grammaticalization concerns semantic extension. *Bun*, losing its verbal status but gaining more grammatical features (cf. Sweetser 1988), extends its meaning across conceptually associative domains, such as from a verb of giving to a purpose clause linker, or from a verb of giving to passivity. Its meaning extension illustrates a good example for the abstraction hierarchy proposed by Heine et al. 1991.

## 4.2 Typological comparison

Given the analysis of *bun*, which arguably develops into two different grammaticalization chains, one will find similar phenomena cross-linguistically. First of all, the corresponding morphemes observed in other sub-dialects of Hakka such as Hailu Hakka, Sixian Southern Hakka, and Dongshi Hakka among others, all share astonishingly similar patterns, both syntactically and semantically. Furthermore, in studying Rama, a Chibchun language of Nicaragua, Craig (1991) provides a good illustration of polygrammaticalization. Masses of data are presented to show how various chains of grammaticalization interconnect through a common set of morphemes. This study of *bun* illustrates another piece of empirical evidence for the argument that multiple grammaticalization chains may originate in one particular lexical morpheme.

The two clines developed from Hakka *bun*, a complementizer from a verb and an agent marker from a verb, have been identified in other languages. In studying Newari, a Tibeto-Burman language of Nepal, Genetti (1991) notices that the development of

For example, with a different tone from *bun* (a falling tone) in Sixian Hakka, *bun* (a rising tone) in Hailu Hakka shows rather similar patterns in terms of the functions discussed in this study. I thank Lihua Chang for providing me with this observation.

postpositions into subordinators occurred frequently over the last several centuries. Like Hakka bun, a specific pattern of extension from a dative adposition to a purpose subordinator is found in her Newari data; cf. Genetti 1991:229-30. Carlson (1991:217) shows examples where a main verb develops into a complementizer via a postposition stage in Senufo languages. Matisoff (1991), examining Lahu, Vietnamese and Yao, finds strikingly parallel patterns, whereby the same morpheme functioning as main verb can also function as a benefactive postposition or a permissive/eausative complementizer; cf. Noonan 1985. 12

With regard to the development of an agent marker from a verb of giving, similar observations are plentiful cross-linguistically. Xu (1994) points out regular parallelism among 23 dialects in Chinese, where morphemes which express the full verb meaning 'give' also denote agent markers. Comrie (1976) also shows that the dative functions as an agent of a passive sentence in Mongolian. Thus we have seen that the present data from Hakka are similar to other cases of grammaticalization in a number of respects.

This study, based on data from Hakka, demonstrates a case of polygrammaticalization in which the polysemous features exhibited by the morpheme bun is accounted for naturally. The analysis presents not only an in-depth understanding of the phenomena in a particular language—Hakka—but also a survey of cross-linguistic universals. As Sweetser (1990:9) maintains, "since new senses are acquired by cognitive structuring, the multiple synchronic senses of a given word will normally be related to each other in a motivated fashion." By providing a motivated account of the relationships between senses of bun, this study has shown that a cognitively oriented approach that has allowed for metaphorical extension within the conceptual system can account for synchronic polysemy plausibly.

Nevertheless, one issue needs to be investigated further. Following Andersen (1973), Hopper & Traugott (1993:39-42) point out that reanalysis is a result of abduction, a type of reasoning first identified by Peirce (1931). Abduction proceeds from an observed result, invokes a law, and infers that something may be the case. The abduction account of the development of bun from a verb to a postposition, for example, can be represented as follows. A hearer has heard the output Gia ba bun yi kiu tien bun gi (the result), but assigns to it a different structure (the case) after matching it with possible postpositional constructions specified by Hakka grammar. The conclusion is not identical with the original structure, but is compatible with it since the surface string is the same. Taken by Peirce as the basis of human perception, this type of reasoning

<sup>12</sup> The morpheme *lau* (or *tong*) is used in Hakka to shoulder the benefactive function. See also Huang (1985) for the discussion of the labor sharing among different case makers in Mandarin Chinese, Taiwanese Southern Min and Hakka.

<sup>&</sup>lt;sup>13</sup> See also Lai (to appear) for a similar analysis of another Hakka polysemous morpheme, DO.

was also seen as a weak form of reasoning because even if the premises are true, the conclusion might not be so, or because, alternatively, the law may be an established truth, or a tentative generalization; Hopper & Traugott 1993. Henceforth, although the study, employing abductive reasoning, claims two different paths of development of the polysemous uses of *bun*, evidence for the relative timing of the various developments will definitively enhance the argument.

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