

On the Interaction between Negation and Aspect in Grammaticalisation: A Cross-linguistic Study of Three Chinese Varieties

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Abstract

This paper presents a quasi-diachronic analysis on the development in negation system of three Chinese varieties, namely Mainland Mandarin, Hong Kong Cantonese, and Gaozhou Cantonese – an almost unstudied variety spoken in Maoming. I argue that the form and distribution of the negators *méi* (*yǒu*), *mou5*, and *mau5* in these varieties respectively, are strongly connected to the development of their existential predicate *yǒu/jau5* ‘have’, a key component of Chinese negators. Supported by preliminary typological findings, the development in form of the negator NEG-HAVE concurs with the BE/HAVE auxiliary development as independently argued for in Freeze (1992) and Kayne (2000). Cross-dialectal variation in negator distribution is attributed to the development of the existential predicate along the proposed pathway of existential > possessive > aspect. This analysis can explain the split negation system found in Mandarin Chinese and Hong Kong Cantonese, where *méi* (*yǒu*) and *mou5* are used specifically for perfective contexts, within the minimalist framework of Agree and incorporation.

Keywords

negative existentials, Gaozhou Cantonese, cyclic incorporation, grammaticalisation, Croft’s Cycle

1. Introduction

Negation in Chinese has been a subject of investigation for decades. Most existing studies have focused on Mainland Mandarin negators *méi* (*yǒu*) and *bù*, with a general understanding that only the former can negate perfective predicates while the latter cannot. Besides, little has been done in deconstructing Chinese negators in terms of how they are composed, and how such composition influences their structural distribution. Therefore, in this study, I compare three Chinese varieties from both synchronic and quasi-diachronic

points of view. The three varieties concerned are namely, Mainland Mandarin,¹ Hong Kong Cantonese, and an almost unstudied variety of Cantonese spoken in Gaozhou. The structure of this paper is as follows. Section 2 gives an overview of how negation works in these varieties. In Section 3, I begin my analysis by classifying these three negation systems according to Croft's (1991) negative-existential cycle, which Chinese seems to fit well into. In light of some important challenges to such classification, I introduce three more grammaticalisation processes in Section 4, which together shall form a broader picture to account for the variations observed. Based on the conceptual groundwork hitherto argued for, Section 5 provides a Minimalist account of the grammaticalisation process observed, adopting Roberts' (2010) incorporation theory; before I conclude in Section 6.

2. Three Chinese negation systems

This study centres around three Chinese varieties: Mandarin Chinese (MC), Hong Kong Cantonese (HKC), and Gaozhou Cantonese (GZC) which is spoken in Maoming, a southwestern county in Guangdong Province of China. Table 1 gives an overview of how negation works in these three varieties.

Table 1 Negation systems in Chinese (MC, HKC and GZC)

	Negator _A		Negator _B	
Gaozhou Cantonese			冇 <i>mau5</i>	'not'
Mandarin Chinese	沒 (有) <i>méi(yǒu)</i>	'not (have)'	不 <i>bù</i>	'not'
Hong Kong Cantonese	冇 <i>mou5</i>	'not.have'	唔 <i>m4</i>	'not'
	perfective predicates; existential constructions; possessive constructions		non-perfective predicates; copula constructions; A-not-A yes/no questions ²	

MC has two negators, *méi(yǒu)* and *bù*. For ease of exposition, I henceforth term them as Negator_A and Negator_B. The counterpart for these two negators exists in HKC as *mou5* and *m4*. It is generally understood that Negator_A occurs in the negation of perfective predicates, while Negator_B serves more general purposes other than to negate perfectives. Most interestingly, in contrast to these two varieties, GZC only has one sentential negator, *mau5*.

¹ Where Mandarin examples are used in the paper, they will be from Mainland Mandarin unless otherwise specified.

² MC *méi* can appear in A-not-A questions as well.

This negator is thus responsible for negation of all the constructions shared by Negator_A and Negator_B in MC and HKC. Examples (1) to (4) illustrate some of the negation patterns mentioned in Table 1.

(1) Existential construction

‘There aren’t pencils in the classroom’

- | | | | | | | |
|----|----------------|------------|------------|---------------|----------------|-------|
| a. | <i>Jiaoshi</i> | <i>li</i> | mei | <i>(you)</i> | <i>qianbi</i> | [MC] |
| | classroom | inside | NEG | have | pencil | |
| b. | <i>Fosat</i> | <i>dou</i> | mou | <i>(*jau)</i> | <i>jyunbat</i> | [HKC] |
| | classroom | place | NEG.have | have | pencil | |
| c. | <i>Fosat</i> | <i>gui</i> | mau | <i>(jau)</i> | <i>jinbat</i> | [GZC] |
| | classroom | that.place | NEG | have | pencil | |

(2) Possessive construction

‘I don’t have pencils’

- | | | | | | |
|----|------------|------------|---------------|----------------|-------|
| a. | <i>Wo</i> | mei | <i>(you)</i> | <i>qianbi</i> | [MC] |
| | I | NEG | have | pencil | |
| b. | <i>Ngo</i> | mou | <i>(*jau)</i> | <i>jyunbat</i> | [HKC] |
| | I | NEG.have | have | pencil | |
| c. | <i>Ngo</i> | mau | <i>(jau)</i> | <i>jinbat</i> | [GZC] |
| | I | NEG | have | pencil | |

(3) Perfective predicate

‘I didn’t take your pencil’

- | | | | | | | | | |
|----|------------|------------|---------------|---------------|--------------|---------------|----------------|-------|
| a. | <i>Wo</i> | mei | <i>(you)</i> | <i>na</i> | <i>ni-de</i> | <i>qianbi</i> | [MC] | |
| | I | NEG | have | take | you-GEN | pencil | | |
| b. | <i>Ngo</i> | mou | <i>(*jau)</i> | <i>lo</i> | <i>lei</i> | <i>zi</i> | <i>jyunbat</i> | [HKC] |
| | I | NEG | have | take | your | CL | pencil | |
| c. | <i>Ngo</i> | mau | <i>(*jau)</i> | <i>lo-gwo</i> | <i>nei</i> | <i>zi</i> | <i>jinbat</i> | [GZC] |
| | I | NEG | have | take-EXP | your | CL | pencil | |

(4) Copula construction

‘(This) is not a railway, (it) is a highway’

- | | | | | | | |
|----|------------|------------|---------------|------------|----------------------|-------|
| a. | Bu | shi | <i>tielu</i> | <i>shi</i> | <i>gaosu</i> | [MC] |
| | NEG | be | railway | be | highway | |
| b. | M | hai | <i>titlou</i> | <i>hai</i> | <i>goucukgunglou</i> | [HKC] |
| | NEG | be | railway | be | highway | |
| c. | Mau | hai | <i>titlou</i> | <i>hai</i> | <i>goucuk</i> | [GZC] |
| | NEG | be | railway | be | highway | |

There are three major observations from the examples above. First, there is a distinction between a ‘split’ system of negation and one that is not. A ‘split’ system means, literally, where a variety has more than one sentential negator, and so naturally the task of negation is shared among those negators. MC and HKC are exemplars of this. GZC, on the other hand, has a non-split system of negation with only one sentential negator. This can be seen by contrasting examples (1) to (3) with (4). The second observation is the similarity in negation strategy found in (1) and (2). In negating existential and possessive, the distribution of *yǒu/jau5* ‘have’ is the same within each variety. However, if we compare that to the pattern in (3), we note a potential point of diversion: negation of perfective predicates can involve a different strategy from that of negative existential and negative possessive within a variety. This is seen in GZC where, *jau5* can follow the negator *mau5* when negating existentials (1c) and possessives (2c), but never when negating perfective predicates (3c). Table 2 summarizes these patterns.

Table 2 Distribution of *HAVE* in different negative constructions in Chinese

	Negative existential & possessive	Negative [+PFV] predicates
GZC	<i>optional</i> : not (have) DP	<i>inhibited</i> : not (*have) V
MC	<i>optional</i> : not (have) DP	<i>optional</i> : not (have) V
HKC	<i>inhibited</i> : not (*have) DP	<i>inhibited</i> : not (*have) V

For the present discussion, I will focus on the realization (with special attention to the use of *yǒu/jau5* ‘have’) and the distribution of Negator_A (or the negator) in the three varieties of Chinese only; because where Croft’s Cycle and related phenomena are concerned, only Negator_A is relevant, as we shall see in the discussion that follows. Therefore, I begin by examining this class of negators from a Croft’s Cycle perspective in the next section.

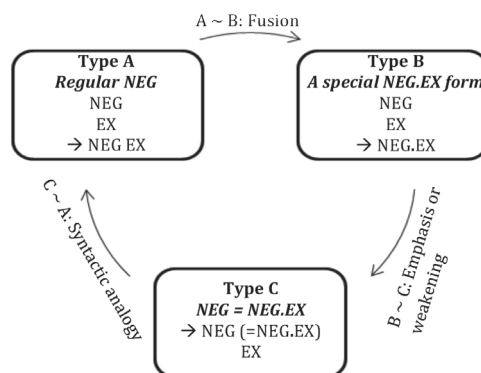
3. A Croft’s Cycle perspective

Chinese, in general, has the verb 有 ‘have’ as the existential predicate. It is phonologically realized differently in different varieties – *yǒu* in (mainland and Taiwan) Mandarin, and *jau5* in the two Cantonese varieties. Since the existential verb *yǒu/jau5* ‘have’ is a component which makes up the negator in Chinese, Croft’s negative-existential cycle becomes particularly relevant to our discussion. This section will first introduce the Croft’s Cycle, then apply its classification to the three Chinese varieties, and finally evaluate such classification.

3.1. Croft's negative-existential cycle

Croft (1991) has proposed a negative cycle that is driven by the merge and separation of negation with the existential predicate. The main idea is illustrated in the diagram below: (adapted from Croft 1991: 6, van Gelderen 2011: 296, Willis, Lucas and Breitbarth 2013: 24, Veselinova 2014).

(5) Croft's negative-existential cycle



The diagram in (5) shows three main language types (A, B, and C) in terms of how a negative existential is expressed, and three transition types in between (A~B, B~C, and C~A) involving three different processes of language change. As Croft argues by means of “dynamicization of synchronic typologies” (1991: 1), these six language types are considered not only as synchronic typological classes, but should also represent stages of a negative cycle where negation in languages that are driven by the grammaticalisation of the verbal head would evolve.

In this model, type A languages are at the most compositional and transparent stage, where “the negative existential construction is the positive existential predicate plus the ordinary verbal negator” (Croft 1991: 6-7). Lahu is cited as a clear example.

(6) Type A [Lahu: Tibeto-Burman; (Matisoff 1973)]

- a. *šó-pō* *mâ* *qay*
tomorrow NEG go
‘I’m not going tomorrow.’
- b. *ò-yâ* *mâ* *cò* *šō*
time NEG EX DUR
‘There’s still no time.’

As the negation system of a language evolves, a special form which especially denotes negative existence may gradually emerge. This usually involves contraction or fusion of the general verbal negator and the positive existential predicate. But since it is a gradual process, the two options: NEG EX and NEG.EX, can co-exist as free variants or in different specific contexts, for a period of time during the *A~B transition* until the system has fully developed into a type B, with NEG.EX as the only way to express a negative existential. Amharic shows a rather stable type B system, where the special NEG.EX form ‘*yäll...m*’ is the only choice though its form is not strictly derived from the general negator ‘*a(l)-...-əm*’ or the positive existential verb ‘*all-*’ (Croft 1991: 9).

(7) Type B [Amharic: Semitic; (Leslau 1968)]

<i>səkk^war</i>	<i>yälläm</i>
sugar	NEG.EX.3SG

‘There is no sugar.’

As the special negative existential form becomes more and more productive, it would begin to generalise to contexts beyond its original meaning. In other words, it can begin to be used “for ordinary verbal negation” (Croft 1991: 10). This is when a type B system approaches type C. A test for whether a language has reached type C is to see if the negative existential (NEG.EX) can negate other verbs; if it can, then the language has reached type C. Being a negative *cycle*, the model predicts that after reaching type C, the negation system would go back to the original compositional type A. A test to distinguish a stable type C language from one that is moving on to a full cycle, is to check if the positive existential is compatible with NEG in negative existential contexts. If they are not compatible, then this is a type C language, as exemplified by Nunggubuyu (Croft 1991: 12) in (8).

(8) Type C [Nunggubuyu: Australian Aboriginal; (Heath 1984: 499)]

<i>anúa-lo</i>	<i>tamóata</i>	<i>tágo</i>	<i>[*i-sóaʔi]</i>
village-in	person	NEG.EX	[3.SG.RL-EX]

‘There’s no one in the village’

When the positive existential is once again compatible with NEG in even negative existential contexts, possibly creating an emphatic effect at first, it indicates that the NEG which equals to NEG.EX has begun to be “reanalysed as only a negator” by syntactic analogy with a normal verb (Croft 1991: 12); hence a *C~A* change. Marathi is a case in point (9).

(9) Type C~A [Marathi: Indo-Aryan; (Deshpande, p.c. with Croft)]

tithə koni nāhī [āhe]

there anyone NEG [EX]

‘There isn’t anyone there.’

3.2. Croft’s Cycle and the three Chinese varieties: some challenges

To recapitulate how the negative existential and its positive counterpart behave in the three Chinese varieties, (10) and (11) are provided as illustrations.

(10) (Negative) existential construction (= (1))

‘There aren’t pencils in the classroom’

a. *Jiaoshi li mei (you) qianbi* [MC]

classroom inside NEG have pencil

b. *Fosat dou mou (*jau) jyunbat* [HKC]

classroom place NEG.have have pencil

c. *Fosat gui mau (jau) jinbat* [GZC]

classroom that.place NEG have pencil

(11) (Positive) existential construction

‘There are pencils in the classroom’

a. *Jiaoshi li you qianbi* [MC]

classroom inside have pencil

b. *Fosat dou jau jyunbat* [HKC]

classroom place have pencil

c. *Fosat gui jau jinbat* [GZC]

classroom that.place have pencil

In Croft’s (1991) analysis, MC belongs to the transition type B~C, because the “negative-existential *méi* is already beginning to employ the positive existential *yǒu* analogically, and moreover is proceeding to use *méi* plus *yǒu* as a verbal negator in some contexts without any phonological fusion taking place” (1991: 23). Table 3 briefly sums up the predictions made by Croft’s Cycle.

Table 3 Croft's Cycle predictions

	Negation	Existential	Negative existential
A	NEG	EX	NEG EX
B	NEG	EX	NEG.EX (*EX)
C	NEG [=NEG.EX]	EX	NEG [=NEG.EX] (*EX)
C~A	NEG [=NEG.EX]	EX	NEG [=NEG.EX] (EX)

Apply these predictions to the two Cantonese varieties: (10b) shows that HKC does not allow the presence of the existential predicate (*jau5*) in negative existential context, which means that *mou5* alone denotes negative existential. Besides, *mou5* can negate an ordinary verb 'to take' in a perfective sentence (3b), which shows that *mou5*, Negator_A, is a general negator. The two observations together fit well into the predicted pattern for a type C language, where the negative existential (NEG.EX) has developed into a general negator and cannot co-occur with the existential predicate in negative existential contexts, possibly due to overlapping structural position. Thus, HKC is a type C language. GZC, on the other hand, allows the existential predicate *jau5* to optionally appear in negative existential sentences (10c), which means that *mau5* alone can express negative existential, similar to HKC *mou5*. Also, *mau5* as shown in Table 1 and (3c), is a general sentential negator. Therefore, GZC must be at least of type C. However, what sets the two Cantonese varieties apart is, precisely the fact that the existential predicate can appear in a negative existential context. Recall the Marathi example in (9). GZC *mau5* being the 'special' form for negative existential and a general negator at the same time, can allow the existential predicate *jau5* to occur in negative existential context, shows that GZC is moving on to a full cycle (i.e. C~A). Now, a potential puzzle may arise as to why MC should be classified as B~C by Croft and GZC as C~A, since in both cases, the existential predicate 'have' can optionally occur in negative existential contexts, and the negators concerned are general verbal negators. Therefore, I propose that both MC and GZC should belong to the same type, C~A, following Croft's Cycle.

The classification so far seems straightforward, but two empirical facts pose further complications. First, from Table 1, GZC differs considerably from MC by having only one sentential negator instead of two. This implies that the MC Negator_A may not be a fair equivalent to the GZC negator. A second challenge concerns the distribution of *yǒu/jau5* 'have' in the negation of perfective predicates. Table 2 in the previous section shows that in GZC *jau5* 'have' is optional in negative existentials and negative possessives but inhibited in negating perfective sentences; whereas in MC and HKC, *yǒu/jau5* 'have' is optional and strictly disallowed respectively in all three contexts. These observations may not rebut what is predicted in Croft's Cycle, but such diversions between GZC and MC, shows a need to

go beyond the classification predicted by Croft's Cycle, in order to achieve a comprehensive account of the empirical data. Therefore, I shall integrate the findings from the Croft's Cycle with three other grammaticalisation pathways in the next section.

4. Going beyond the Croft's Cycle

At this point, it is important to re-think what a negative-existential cycle should represent. Beyond doubt, a negative-existential cycle is a cycle by which certain negation markers evolve from negative existential markers. Nevertheless, it should also account for how the existential marker becomes involved in a negation cycle. In other words, a negative-existential cycle should also illustrate what makes the existential expression so closely connected with negation. To address this question, I look into the Chinese negators from two angles: their realisation and their distribution, especially with regard to that of the existential verb 有 *yǒu/jǎu5* 'have'. To that end, this section first present some typological findings that point to certain intriguing patterns regarding the forms that existential predicates may take, and their distribution, in languages which are found to be sensitive to Croft's Cycle. Then, three other grammaticalisation processes which are relevant to the explanation of the Chinese negation systems discussed here will be introduced; and finally, I shall propose a generalised pathway based on these four well-established grammaticalisation processes.

In Croft's 1991 paper, he has considered eighteen languages,³ which cover a range of language families, including MC as a representative of the Sino-Tibetan family. This section adds the two Cantonese varieties - HKC and GZC, into the group of Croft's Cycle-sensitive languages, and takes a closer scrutiny of the existential predicate in these twenty languages. The survey examines the existential predicates from two perspectives: realization and distribution; the result reveals several important patterns.

In terms of realization, there are three major forms attested for an existential, namely BE, BE+LOC[ative], and HAVE, as shown in Table 4.

³ The eighteen languages are: Lahu (A), Tzutujil (A), Syrian Arabic (A), Balinese (A~B), Hungarian (A~B), Russian (A~B), Amharic (B), Woleaian (B), Turkish (B), Fula (B), Wintu (B~C), Kanuri (B~C), Mandarin (B~C), Indonesian (B~C), Manam (C), Tongan (C), Nunggubuyu (C), Marathi (C~A). The classification is shown in parentheses.

Table 4 Forms of existential predicate

BE	BE + LOCATIVE	ASSOCIATIVE/ COMITATIVE	HAVE	Undetermined ⁴
Lahu (A) <i>cə</i>	Tzutujil (A) <i>k'o(oli)</i>	Kanuri (B~C) <i>-à</i>	Amharic (B) <i>all-</i>	Syrian Arabic (A) <i>fi</i>
Hungarian (A~B) <i>van</i>	Indonesian (B~C) <i>ada</i>		Woleaian (B) <i>yoor</i>	Balinese (A~B) <i>hana</i>
Russian (A~B) <i>byt'</i>	Manam (C) <i>-sóaʔi</i>		Turkish (B) <i>var</i>	Fula (B) <i>(‘e)dón</i>
Marathi (C~A) <i>āhe</i>	<i>-eno</i>		MC (C~A) <i>yǒu</i>	Wintu (B~C) ?
	Tongan (C) <i>i ai</i>		GZC (C~A) <i>jau5</i>	Nunggubuyu (C) ?
	<i>ka ai</i>		HKC (C) <i>jau5</i>	

This concurs with the grammaticalisation process described by Heine and Kuteva (2002) in (12), where they suggest that cross-linguistically the predicate ‘to exist’ can evolve from five different sources (i-v), and BE+LOC, LOC, and HAVE are three of such sources.

(12) EXIST: (Heine and Kuteva 2002:127-128, 331)

- | | | |
|-----------------------|-----------|-------------------|
| (i) COMITATIVE | > EXIST > | (i) CONTINUOUS |
| (ii) LOCATIVE COPULA | | (ii) H-POSSESSIVE |
| (iii) LIVE | | |
| (iv) LOCATIVE | | |
| (v) H[AVE]-POSSESSIVE | | |

Crucially, the data shows a tendency for type A-related languages (cf. Croft 1991) – type A and type A~B languages – to have a BE-form existential; whereas languages with a HAVE-form existential are all at least of type B. This pattern resembles the BE > BE+LOC > HAVE auxiliary evolution argued in Freeze (1992) and Kayne (2000), which will be further discussed in the next section. In the meantime, if we map up the negative-existential cycle with the grammaticalisation of BE/HAVE auxiliaries, we can see a likelihood for languages at an earlier stage of the Croft’s Cycle to also be at an earlier stage of this BE/BE+LOC > HAVE line of development.

⁴ Undetermined due to insufficient information from available grammars of these languages.

Regarding the distribution of existential predicates, there are three other contexts apart from the existential construction that an existential predicate can appear in; these include locative, possessive, and aspectual or emphatic contexts. Correlating the distributional findings with the different realizations of existential, as well as with the Croft's Cycle, uncovers two important observations: (i) all languages with a HAVE-form existential use their existential verb to denote possession as well; and (ii) those languages whose existential expressions also express aspectual information or carry emphatic function are a proper subset of those whose existential predicates denote possession. Indeed, the typological pattern described is in line with Heine's (1997) Genitive Schema (13).

(13) Genitive Schema (Heine 1997)

Existence	>	Possession	>	'Nuclear' existence
(Y exists with reference to X)		(X has Y)		(It has Y > Y exists)

According to the Genitive Schema, the valence of EXIST decreases as it grammaticalizes, as formulated in (14), so that the second EXIST is in fact "Nuclear existence" (Heine 1997: 96).

(14) $\exists x \exists y (\text{AT/WITH } (x, y)) > \exists x (\text{Fx})$

Then, if we follow the pathway of H(ave)-Possessive – a marker of predicative possession typically expressed in English by 'have' (Heine and Kuteva 2002) – we can explain why a subset of those languages that use the existential expression for possessive construction, also use that for tense-aspect marking. H-possessive is one of the origins of PERFECT and from there to perfective or past tense (15).

(15) H-Possessive: (Heine and Kuteva 2002: 241-245, 231-232)

H-POSSESSIVE	>	(i) EXIST	
		(ii) FUTURE	
		(iii) OBLIGATION	
		(iv) PERFECT	> (i) PAST
			(ii) PERFECTIVE

Indeed, French *avoir* 'to-have' is a case in point where 'have' is polysemous in denoting existence (16a), possessive (16b), and perfect aspect (16c).

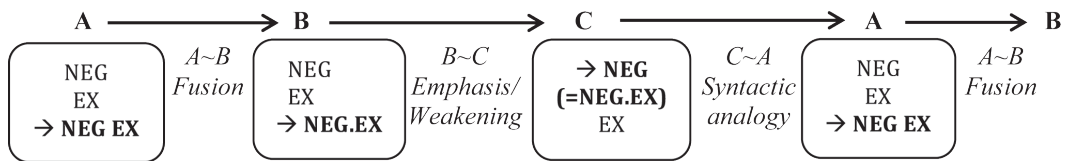
(16) French ‘to have’ (adapted from Rowlett 2007)

- a. *Il y a un débat pour savoir jusqu’où doit-il aller* [Existential]
it there **HAVE** a debate for know how.far must-he go
‘There’s a debate as to how far he must go.’
- b. *J’ai beaucoup d’amis* [Possessive]
I-HAVE lots of-friends
‘I have lots of friends’
- c. *A Jean j’ai donné €20* [Perfective]
to Jean **I-HAVE** given €20
‘I gave/have given Jean €20’

This paper argues that Chinese ‘have’ is another example, and that such polysemy can be accounted for by putting together the three grammaticalisation pathways introduced in this section. If we consider Croft’s Cycle side by side with these three pathways, we shall have a more comprehensive understanding of the negation systems of the three Chinese varieties. The four diachronic processes are listed in (17).

(17) Four interacting diachronic processes

a. Croft’s negative-existential cycle (Croft 1991)



b. Development of BE/HAVE auxiliaries (Freeze 1992, Kayne 2000)

BE > BE + LOC > HAVE

c. Genitive Schema (Heine 1997)

Existence > Possession > ‘Nuclear’ existence
(Y exists with reference to X) (X has Y) (It has Y > Y exists)

d. Development of Perfective (Heine and Kuteva 2002, Benveniste 1966)

H(ave)-possessive > PERFECT > Perfective; Past

In sum, the four processes are connected in the following ways: first, the Croft’s Cycle provides a foundation to deconstruct Chinese negators via the merge and separation of

negation with the existential predicate – precisely the components that make up the Chinese negators (here, referring to Negator_A). On those grounds, the BE/HAVE development fleshes out the possible evolutionary pathway that the *realisation* of the existential verb ‘have’ in Chinese could have taken. Furthermore, by proposing that the auxiliary and main verb HAVE develops from BE and a locative, the analyses in Freeze (1992) and Kayne (2000) also link up with the Genitive Schema, in that the possessive meaning develops from existence. This line of development takes us to the emergence of perfective aspect from H(ave)-possessives – a marker of predicative possession typically expressed in English by ‘have’ (Heine and Kuteva 2002) – as in (17d). Thus, the Genitive Schema in (17c) and the grammaticalisation of possessives as in (17d) together construct a possible explanation for the *distributional* development of Chinese Negator_A and, even more so, the distribution of *yǒu/jǒu* ‘have’ in the three Chinese varieties in negative contexts. Indeed, preliminary typological findings support the plausibility of such a network of processes.

Concluding from the insights of the twenty languages examined, and based on the grammaticalisation processes considered, I propose a unified grammaticalisation pathway: Existential (EX) > Possessive (POSS) > Aspect (ASP).⁵ This pathway can be read as an implicational universal; particularly that, if the existential expression in a language can be used as an aspectual marker, it would also be used to express possessive. The next section puts forward a formal analysis for this generalisation which also captures the cross-variety variations in Chinese.

5. An incorporation account of cross-variety variations

My proposal draws fundamental assumptions from the Probe-Goal Agree approach of the Minimalist Program (Chomsky 2000, 2001) and Incorporation of the Probe with its Defective Goal (Roberts 2010) as defined in (18) and (19). Section 5.1. takes the development shared by all three Chinese varieties, i.e. EX=POSS as an illustration; then I apply the analysis to what captures their cross-linguistic differences in Section 5.2.

⁵ The pathway proposed here does not specify what aspect the existential predicate may develop into, because that depends on whether the language has a further classified existence into temporary existence and permanent existence. Manam is one such language: the existential predicate for temporary existence *-sóaʔi* has developed into progressive aspect, while the one for permanent existence, *-eno*, has become persistent. And in the case of the Chinese varieties, the existential predicate ‘to have’ has developed into perfective aspect.

(18) *Incorporation* (Roberts 2010)

- (i) Incorporation can take place only where the label of the incorporee is nondistinct from that of the incorporation host; and
- (ii) The category dominating both the incorporee [...] and its host are minimal.

(19) *Defective Goal* (Roberts 2010)

A Goal G is defective if G's formal features are a proper subset of those of G's Probe P.

5.1. The common ground: EX=POSS

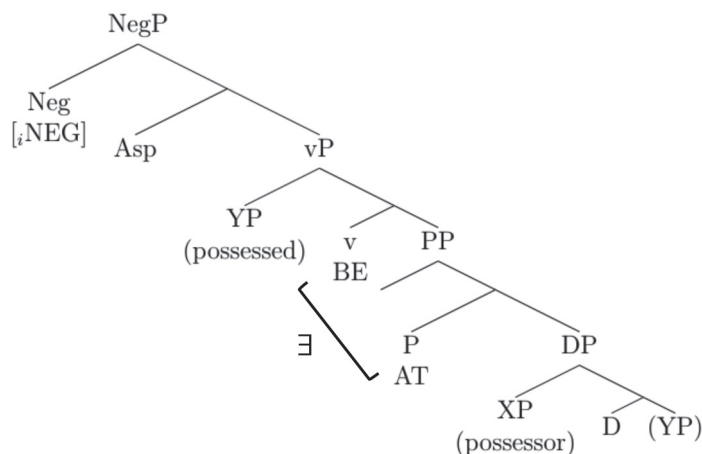
Freeze (1992) argues that the three sentences in (20) share the same underlying locative structure. In fact, we can easily translate the relation among these constructions into the evolution pattern identified for the realisation of EXIST, that is: BE > BE+LOC > HAVE (as in 20a, b, and c respectively). Kayne (2000) discusses this process with a similar claim that HAVE is the result of combining LOC with BE. Indeed, the two analyses differ mainly in the perspective taken. Freeze sees these three constructions under the lens of a common locative element; while Kayne interprets them in terms of possession (i.e. a relation between the possessor and the possessed).

(20) (Freeze 1992: 553)

- a. There is a book on the bench. [Existential]
- b. The book is on the bench. [Predicate locative]
- c. Lupe has a book. [HAVE predication]

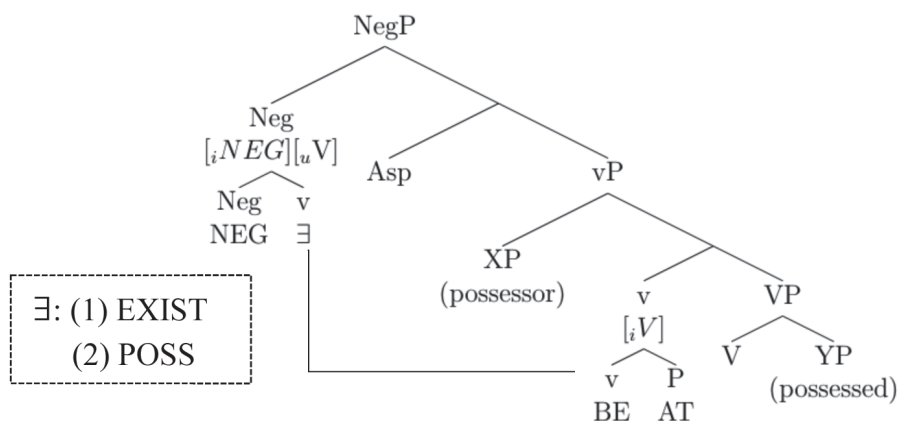
Drawing insights from both proposals, this paper argues for an analysis that accounts for the different forms of existential, as well as the emergence of possessive and perfective meaning from the existential expression. To start with, (21) presents the pre-incorporation configuration. In featural terms and adopting Roberts' (2010) theory of incorporation, (21) is the configuration for type A languages, where the negative existential is compositionally expressed by having a negator plus an existential expression. Thus, this is a stage where existence is expressed by two separate functional heads (i.e. v and P) as represented in the diagram below.

(21) Type A - NEG EX



The next step in the development of an existential expression is incorporation of BE and LOC, as in (22). In languages like Chinese, which have a HAVE-form existential, the existential verb also carries possessive meaning. This is attested in all three varieties, as well as the typological findings in Section 4.

(22) Type B - NEG.EX

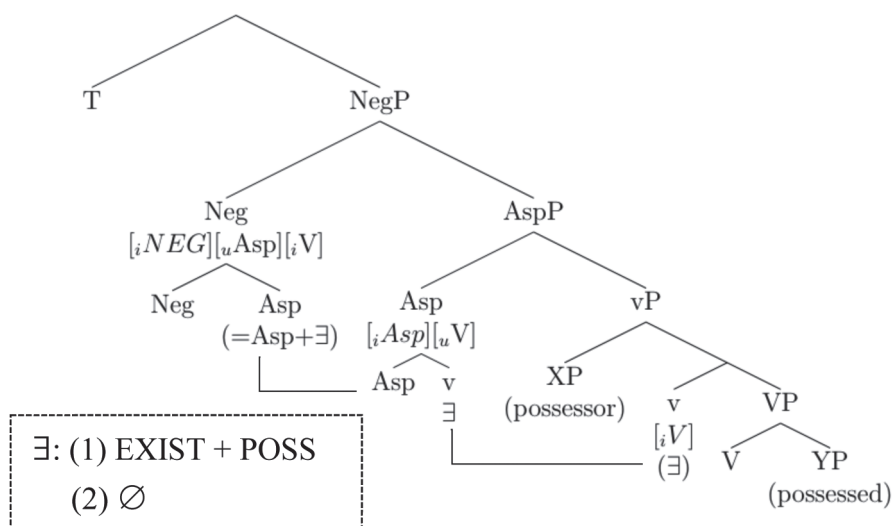


5.2. The diversion: POSS>ASP, or not (yet)

As mentioned above, what distinguishes the three Chinese varieties is the different stages they are at in the POSS > ASP development of the existential verb. In HKC (type C) where the negative existential *mou5* 'not.have' has developed into one of the general negators;

this negator also encodes perfective aspect. Sentential negation of type C languages has the configuration as in (23). The \emptyset here stands for the endpoint of semantic bleaching, where the existential expression has lost all its interpretable features. The existential having grammaticalized and incorporated into Asp has lost its semantic properties as a verbal element, and the precise aspectual information encoded in the incorporated output form [Asp- \exists] is largely dependent on which specific aspect head the existential is incorporated into.

(23) Type C - NEG (= NEG.EX)



6. Conclusions

To conclude, the present study centres around the negative-existential cycle proposed in Croft (1991) and its application on three Chinese varieties –MC, HKC, and GZC. In light of the inadequacy in classifying these varieties based solely on the Croft's Cycle, I have shown that the negative-existential cycle has to be understood in close connection with two other grammaticalisation pathways:

- (i) In terms of the *realisation* of existential: BE > BE+LOC > HAVE
- (ii) In terms of the *distribution* of existential: Existential > Possessive > Aspect

I have also put forward a formal analysis based on the incorporation of different structural heads (Roberts 2010), as well as the change in lexical entries of the existential. This is summarised as follows:

Negative existential

- Type A (NEG EX): no incorporation
- Type B (NEG.EX): Neg-v incorporation [\exists = (1) EXIST; (2) POSSESSIVE]
- Type C (NEG = NEG.EX): Neg-Asp incorporation [\exists = (1) EXIST & POSS; (2) \emptyset]

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否定和體貌在語法化過程中的互動： 論三種漢語方言的否定結構演進過程

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提要

本文引用 Croft (1991) 的“否定—存在演化圈”理論以北京官話、香港粵語及高州白話三種方言作為研究對象，提出它們各自的否定詞——“沒(有)”、“冇”和“茅”在演變過程中跟它們的存在動詞“有”有密切關係。而且不同漢語方言可處於“演化圈”中不同的位置，而演進的推動力與 Freeze (1992) 等所提出的 Be/Have 助動詞發展有關。因此，本文運用“最簡方案”為上述三種方言的否定詞演變作出新的語法解釋。

關鍵詞

否定存在結構，高州白話，連續併入，語法化，否定—存在演化圈

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