

SYNTACTIC AND SEMANTIC CHANGE IN CHINESE

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Abstract

This paper discusses some of the most hotly debated topics over the past few years on syntactico-semantic change in a functional-cognitive perspective and propose a new model of grammatical change in Chinese by providing more solidly-based definitions of such notions as ‘grammaticalization’, ‘lexicalization’, ‘degrammaticalization’, ‘exaptation’, and ‘reanalysis’, as well as ‘analogy’ with respect to internal processes of change, but also for external ones, specifically, borrowing through language contact or contact-induced change.

It will propose that this model is constituted by just two internal mechanisms: reanalysis and analogy. Consequently, it will be argued that grammaticalization – which has been by far the focus of most of the studies on historical grammar in recent decades – is secondary. The processes of grammaticalization, lexicalization and exaptation will thus be viewed as sub-classes of reanalysis, while some ‘degrammaticalization’/lexicalization processes will be more aptly viewed as a sub-class of analogy.

The main motivations (if not genuine explanations) for grammatical change will also be discussed, i.e. semantic-pragmatic change, including mainly metaphorical extension, pragmatic inferencing or metonymization and (inter-)subjectification, as well as others, such as phonological change. Concerning the third – and external – mechanism of change, it will be shown that the several universals and principles of borrowing that have been proposed remain rather ill-defined.

1. Introduction *

The two essential mechanisms said to account for the appearance of new grammatical forms remain roughly those identified by Meillet (1912) a hundred years ago: analogy and grammaticalization.¹ Scholars working on diachronic syntax try to find answers to the four following questions: (i) ‘what motivates grammaticalization in the first place? (ii) what mechanisms lead to it? (iii) what are its probable paths of progression through time? (iv) what are its end results?’ (Hopper & Traugott 1993: 32). A third and external mechanism has to be necessarily added to these two internal ones: external borrowing, but it is principally the second of these two internal mechanisms, i.e. grammaticalization, that has been extensively discussed and commented on over the past thirty years.

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¹ Meillet (1912) believed that there was a need to have a new class of changes that did not fit into any of the three categories of linguistic change allowed by the neo-grammarians and de Saussure (i.e. sound change, analogy, and borrowing) and so he was the first to coin the term ‘grammaticalization’.

The following issues have been much debated: (i) Does grammaticalization have any theoretical value?² (ii) Can the unidirectionality principle in grammaticalization be upheld and above all, is this unidirectionality of theoretical importance? (iii) Are there ‘degrammaticalization’ cases contradicting the unidirectionality principle, a term used widely today (Norde 2002, Heine 2003)? (iv) Is it necessary to apply the notion of exaptation, borrowed from biology, to linguistics, as suggested by Lass in 1990? (v) Are pragmatic inferencing (metonymization), metaphorical extension and subjectification the only main motivations for syntactic change, and hence the major mechanisms of semantic change?

In this paper, I would like to propose a coherent model of grammatical change in Chinese, by providing more solidly based definitions of such notions as grammaticalization, ‘degrammaticalization’, exaptation, but also of reanalysis and analogy, lexicalization, re-grammaticalization (Greenberg 1991), functional renewal, re-functionalization (Giacalone Ramat 1998), and hypo-analysis or under-analysis (Croft 2000), redefining their role and function in grammatical change.³

This model of grammatical change, roughly outlined in Peyraube (2005), has only two internal mechanisms of syntactic change: analogy and reanalysis. Grammaticalization, ‘degrammaticalization’ and exaptation are consequently secondary processes, and ‘degrammaticalization’ (or rather lexicalization as I will subsequently argue later that ‘degrammaticalization’ and lexicalization are one and the same phenomenon) and exaptation have to be distinguished: the first one belongs to both the mechanisms of analogy and reanalysis, while the last one belongs only to reanalysis. And there is still of course a third external mechanism: borrowing. Analogy (or generalization) thus comprises cases of ‘degrammaticalization’ / lexicalization, while reanalysis comprises grammaticalization, ‘degrammaticalization / lexicalisation and exaptation.

But what do we mean precisely by analogy, reanalysis, grammaticalization, unidirectionality and ‘degrammaticalization’ / lexicalization, and exaptation? What also could be the motivations – and not the genuine mechanisms – of the syntactic change?

2. Analogy (or Extension)

Hopper and Traugott (1993: 21) speak of ‘new paradigms (which) come into being through formal resemblance to already established paradigms.’ McMahan (1994: 71) defines analogical extension as follows: ‘generalization of a morpheme or relation which already exists in the language into new situations or forms.’ Another definition, which parallels the one usually given for reanalysis (see below), concerns the levels of structure. Analogy only modifies the surface structure and does not modify the underlying structure.

Analogy does not represent a principle of grammatical change: ‘the fact that many reanalyses can be interpreted as analogical extensions does not make analogy a principle of change, least of all an explanatory principle’ (Lightfoot, 1981: 225). As a matter of fact, analogy, as Kuriłowicz, (1945-9: 174), once said, is like rain water: it must take a certain path (channel, gutter, etc.) once it has fallen, but rain is not a necessity. In other words, analogy may tell us about the mechanism behind a change, but it cannot furnish the causes of such a change.

² Newmeyer (1998: 226, chapter ‘Deconstructing grammaticalization’) said: ‘there is no such thing as grammaticalization, at least in so far as it might be regarded as a distinct grammatical phenomenon requiring a distinct set of principles for explanation.’

³ Different definitions are currently being used for all these notions (linguists love taking old terms and giving them new definitions for new purposes); the situation can be characterized today as being quite confused, as researchers rarely mean the same things when they discuss what are apparently the same notions.

As for syntactic change in Chinese, almost everybody who has worked on Chinese historical syntax since the beginning of the 1980s has made use of analogical processes to account for grammatical change. This is not surprising, as almost all changes have an analogical ingredient, as stated by Anttila (1977), Lighfoot (1981), Kiparsky (1992) or Blevins and Blevins (2009). Chinese linguists, however, have often wrongly assumed that analogy (*lèitūī*) is more a factor motivating syntactic change than a simple mechanism of change.

Very recently, Kiparsky (2005, 2012), in a rethinking of the concept of analogy, proposed that analogical change is an optimization of grammar, the elimination of unmotivated grammatical complexity or idiosyncrasy. Understanding analogy as grammar optimization allows various types of analogy to be admitted: proportional, non-proportional, and even non-exemplar-based. He actually distinguishes two types of analogy: (i) exemplar-based analogy (comprising proportional analogical change and non-proportional analogical change); (ii) non exemplar-based analogy, which seems a priori a contradiction in terms, as analogy by definition needs a model.

Examples of non-exemplar-based analogical changes are fusions of two words into one, which occur spontaneously without any particular model. It is driven by a language-independent preference for structural economy: other things being equal, one word is always better than two. The opposite process, fission of one word into two words is always exemplar-based, it occurs by analogy with specific existing constructions.

There are many examples of fusions or bonding (cases of two monosyllables having contracted into a single syllable written with one character) and fissions (reverse cases) in the history of Chinese that can be characterized as non-exemplar-based analogies (for the fusional processes) and non-exemplar-based analogies (for the fissional ones). Among the contractions of this kind in Classical Chinese (Late Archaic, (5th – 2nd centuries BCE), can be found:

- (1) *zhī* ‘third personal pronoun’ + *yú* ‘to, at’ > *zhū*; *bù* ‘not’ + *zhī* ‘third personal pronoun’ > *fú*; *wú* ‘not’ + *zhī* ‘third personal pronoun’ > *wù*; *yú* ‘at, to, from’ + *zhī* ‘third personal pronoun’ > *yān*; *hú* ‘why’ + *bù* ‘not’ > *hé*

Later, starting in the Pre-Medieval (Han) period, ca. 1st century BCE, all the above examples of fusion disappeared and a fission process came into operation, returning to the situation which held sway in the Late Archaic period.

- (2) *zhū* > *zhī* + *yú*; *fú* > *bù* + *zhī*; *wù* > *wú* + *zhī*; *yān* > *yú* + *zhī*; *hé* > *hú* + *bù*

Kiparsky goes even further, considering that grammaticalization is actually analogy, even though it is a special type of analogy, with the property that it is driven only by general principles and constraints of the language. It is a case of non-exemplar-based analogical change, allowing for new patterns to arise in language; while cases of ‘degrammaticalization’ (see further the definition) are better viewed as ordinary analogical changes of the exemplar-based type.

3. Reanalysis

Reanalysis is a new concept, compared with grammaticalization, but it also has already been used widely, at least since Langacker (1977) who gave the following definition: ‘Change in the structure of an expression or class of expressions that does not involve any immediate or intrinsic modification of its surface manifestation.’

Harris and Campbell (1995: 61), who were the first to consider reanalysis, instead of grammaticalization, as one of the two major internal mechanisms of syntactic change, adopted the definition of Langacker (1977). As this could also very well characterize grammaticalization, in opposition to analogy, which is a 'change in the surface manifestation of a syntactic pattern that does not involve immediate or intrinsic modification of underlying structure,' the two notions of grammaticalization and reanalysis have sometimes been confused, especially by the Chinese linguists. It is necessary to distinguish them. Even if most grammaticalization cases are also reanalyses, this is not always the case.

Consequently, I have adopted the following definition by Hagege (1993: 62): 'An operation by which language builders cease to analyze a given structure as they did previously, and introduce a new distribution of, and new relations between, the syntactic units that constitute this structure.' As a matter of fact, only Hagege's definition allows to consider major typological shifts such as word order change (OV > VO) as cases of reanalysis.

4. Grammaticalization

Meillet(1912)'s definition of grammaticalization (*'l'attribution du caractère grammatical à un mot jadis autonome'* - 'the shift of an independent word to the status of a grammatical element') has been improved, first by Kuryłowicz (1965): '(It) consists in the increase of the range of a morpheme advancing from a lexical to a grammatical or from a less grammatical to a more grammatical status.' Hopper and Traugott (1993: xv) define grammaticalisation as 'The process whereby lexical items and constructions come in certain linguistic contexts to serve grammatical functions, and, once grammaticalized, continue to develop new grammatical functions'. The 'process' becomes a single 'strong tendency' in the 2nd edition monograph (Hopper and Traugott, 2003: 231): 'Grammaticalization is a robust tendency for lexical items and constructions to be used in certain linguistic contexts to serve grammatical functions, and once grammaticalized, to be used to further develop new grammatical functions.'⁴

For Greenberg (1991: 303), however, grammaticalization is not only a shift from lexical to grammatical. It is '(a) process of development of grammatical elements from all sources'. Many Chinese linguists have preferred to take up this broad definition. However, I believe it is better not to see grammaticalization as an equivalent to grammatical change, and therefore it should not be considered as '(a) development of grammatical elements FROM ALL SOURCES'.

Actually, confined to diachronic studies as it should be understood, grammaticalization is a concept familiar to all Chinese linguistics specialists. At least from the Yuan dynasty onwards (1279-1368), Chinese scholars have observed that empty (grammatical) words were full (lexical) items in ancient times (see Sun 1996: 11, Hong B. 1998). Zhou Boqi, a Yuan dynasty scholar, wrote: *jīn zhī xū zì jiē gǔ zhī shí zì* 'today's empty words are all former full words.'

Special features of grammaticalization pathways, typical of Sinitic languages are given in Chappell and Peyraube (2011), with a discussion of the evolution of classifiers, and principally of the disposal or object marking constructions, passive and causative constructions, all having arisen out of serial verb constructions, creating new forms with complex predicates.

A lot of work has been done on grammaticalization since the 1990s and several principles (or tendencies) have been suggested, as the four typical 'heuristic principles'

⁴ See Traugott (2001). The continued development of already grammaticalized forms into new grammatical functions is what Givón 1991 called 'secondary grammaticalization.'

proposed by Hopper (1991): Layering, Divergence, Specialization, and Persistence.⁵ It is probably exaggerated to call these tendencies associated with unidirectionality 'heuristic principles,' – they are no longer called 'principles' in Hopper and Traugott (1993: 113) – but many good examples (in French, English, Malay, Hindi, etc.) have been found to illustrate them. They have also been effectively applied to Chinese syntactic change by Peyraube (1986, 1988, 1989) and Sun (1996: 165 *sq.*) for the history of the complementizer particle *de*, of the differential object marker *bǎ* and of the dative constructions. See also Heine and Kuteva (2002).

Another strong tendency in grammaticalization is that lexical meanings subject to grammaticalization are usually quite general. For example, verbs which grammaticalize, tend to be superordinate terms (hyperonyms) in lexical fields, for example *say, move, go*. They are not selected from specialized terms such as *whisper, assert*. etc. In other words, lexical items that grammaticalize are typically those known as 'basic words' or, at least, those which are easily accessible. Hagège (1993: 212) has even proposed a MGMTF 'principle' (the 'more general, more frequent principle'): 'due to the needs of human intercourse, Language Builders tend to use on a large scale the words that express general notions corresponding to everyday life.' This tendency has also been observed in Chinese grammaticalization: of hyperonymic verbs *yǔ* 'to give,' *bǎ* 'to take,' *zài* 'to be at,' *liǎo* 'finish' into the prepositions *yǔ* 'to,' *bǎ* 'pre-verbal object marker,' *zài* 'at,' *le* 'aspectual marker.'⁶

Basic to work on grammaticalization is also the concept of the cline. Forms do not shift abruptly from one category to another, but go through a series of gradual transitions, transitions which tend to be similar in type across languages. Most linguists will agree, for instance, that there is a 'cline of grammaticality' of the following type: content item > grammatical word > clitic > inflectional affix. Other examples have been provided in Chinese, for example V *liǎo* 'finish' > Phase complement > Aspectual suffix (see Mei 1994), or the evolution of *gong* from a lexical verb 'to share with' to an adverb 'together', and to a preposition 'with,' and to a conjunction 'and': V > Adverb > Preposition > Conjunction (see Liu and Peyraube 1994).

Another insight strongly developed by von der Gabelentz (1891: 251) is that syntactic change is not a linear process, but rather a cyclical one, or more exactly one that involves a spiral movement, in which changes do not exactly replicate themselves but parallel earlier changes in an approximate manner. Actually, there is little or no evidence to assume that the syntax of languages is developing in one direction through non-reproducible changes. The reason for the cyclical nature of change is to be found in the dialectical relationship between opposite needs of communication: ease of production and perception on the one hand, and the search for expressiveness on the other hand. A good and classic example of a cyclical change, confirmed again in Fleischman (1982) is the evolution of the future in Romance languages

⁵ Layering: 'Within a broad functional domain, new layers are continually emerging. As this happens, the old layers are not necessarily discarded, but may remain to coexist with and interact with the newer layers.'

Divergence: 'When a lexical form undergoes grammaticization (grammaticalization) to a clitic or affix, the original lexical form may remain as an autonomous element and undergo the same changes as ordinary lexical items.'

Specialization: 'Within a broad functional domain, at one stage a variety of forms with different semantic nuances may be possible; as grammaticization (grammaticalisation) takes place, this variety of formal choice narrows and the smaller number of forms selected assume more general grammatical meanings'.

Persistence: 'When a form undergoes grammaticization from a lexical to a grammatical function, so long as it is grammatically viable some traces of its original lexical meanings tend to adhere to it, and details of its lexical history may be reflected in constraints on its grammatical distribution.'

⁶ On the interactions between productivity and frequency, and on the differences between 'type frequency' and 'token frequency', see Brinton and Traugott (2005: 17).

(see Marchello-Nizia 1995: 29), where the analytic future-subjunctive of the Indo-European becomes a synthetic form in Classical Latin (*amabo, legam*), then analytic again in Vulgar Latin (*amare, habeo/volo*), and finally synthetic in form in Romance languages that have evolved from Latin, such as French (*aimerai*). Another example is the change Topic > Subject > Topic attested in several languages, including Chinese (Hagège 1978).

The idea of cyclic changes has been interestingly incorporated in various attempts at the matter by Cai (1986), Cao (1987a, 1987b, forthcoming), Mei (1984, 1987), D'Ésirat & Peyraube (1992). They noticed that some lexical items or grammatical morphemes attested at a certain time disappear during one or several centuries, before reappearing later. For instance, the adverbs *jiù* 'then' and *kuài* 'rapidly' were used during the Southern Song (12th and 13th centuries), to be later replaced by *biàn* and *jí* under the Yuan (13th and 14th c.), and used again at the beginning of the Ming (15th c.). The demonstratives *zhè* 'this' and *nà* 'that' could be used alone as subjects under the Southern Song and again under the Ming (14th – 17th c.), but this was not the case during the Tang (7th – 10th c.) and the Yuan, where they had to be followed either by the classifier *gè* 个, or by the determinative particle *de* 的. The structure 'V + *le* 了 + O + *le* 了' (where the first *le* 了 is an aspectual marker and the second one a final particle) is attested under the Southern Song, after which it disappeared during the Yuan, and reappeared under the Ming.

But the most discussed 'principle' of grammaticalization, up to now, is certainly the 'unidirectionality principle' (see below section 6).

5. Exaptation

The term exaptation is widely used in work on evolution of language, but also now in historical morphosyntax. It was apparently first used in evolutionary biology by Gould & Vrba (1982): 'We wish to restrict the term *adaptation* only to those structures that evolved for their current utility; those useful structures that arose for other reasons, or for no conventional reasons at all, and were fortuitously available for other changes, we call *exaptations*' (Gould 1983, cited in Lass 1990: 80). Lass has been the first to suggest that the concept of exaptation could be used metaphorically to account for changes in grammar. He gave the following definition: 'Exaptation ... is the opportunistic co-optation of a feature whose origin is unrelated or only marginally related to its later use ... In other words (loosely) a conceptual novelty or invention' (1990: 80). Actually, when a form loses its function, or is only marginal within the system, only three possibilities arise: (i) it can be lost; (ii) it can be kept as marginal garbage; (iii) it can be reused for something else (that is exaptation).

Giacalone Ramat (1998) defines exaptation as 'refunctionalization under conditions of discontinuity in the developmental continuum'. Another term with reference to a somewhat similar phenomenon is 'regrammaticalization' (Greenberg 1991), but what is typically treated today as exaptation is the re-use of a marginal morpheme with an old function which becomes a more central morpheme with a new function (Traugott's 2004 formulation).

Exaptation, being a conceptual invention, is a special case of reanalysis. It has nothing to do with extension or analogy, or reformulation of paradigms in accordance with a target or a model. Greenberg (1991) or Giacalone Ramat (1998) argued that grammaticalization and exaptation are conflicting types of change. Norde (2002), Heine (2003), Traugott (2004) view them as essentially similar, but with different outcomes. In my view, it is neither grammaticalization nor 'degrammaticalization'. It is something different, as it is the reuse of an old form A for something else completely new (B), with no direct or indirect connection between A and B.

Many examples of exaptation have been raised and discussed for Indo-European languages. Lass (1990, 1997: 317-319, 2000) cited the following ones: the number/gender

agreement with nouns in Dutch adjective morphology has been reused as a marker on morphologically complex adjectives in Afrikaans; the Indo-European aspectual system has been reused for the Germanic tense system; the Old English present participle *-ende* has become the Modern English progressive form with *-ing*. Other cases are: the use of the Latin suffix *-ille* for the Romance definite article and clitic (e.g. French *le*); the re-emergence, with new functions, of the Old English conclusive perfect (*I have a letter written*) in the 17th century, to coexist with the perfect (*I have written a letter*) (Brinton & Stein 1995); the re-use twice of the Indo-European prefix *-sk* (originally for forming present tense): a first time as an inchoative in Latin (*pallesco* ‘grow pale’), and a second time as an affix in French (*je finis / nous finissons*) (Giacalone Ramat 1998: 111).

As for Chinese, very few cases have been reported until now, as the Chinese linguists have not paid much attention to the phenomenon of exaptation. One can nevertheless cite the reuse of the Ancient Chinese modal particle *yě* as an adverb in Medieval Chinese where *yě* means ‘also’. Another example could be the reuse of *nà*, which was a preposition meaning ‘at, to’ (equivalent to *yí*) in the Buddhist texts of the Late Han and Six dynasties period (2nd – 6th c. CE), as the distal demonstrative pronoun *nà* ‘that’, which began to appear under the Tang (7th – 10th c. CE).⁷

6. Unidirectionality and Lexicalization / Degrammaticalization

The ‘unidirectionality principle’ is claimed to be the main characteristic of grammaticalization (but not reanalysis), associated with it since the beginning. Haspelmath (1999) claimed: ‘Grammaticalization is irreversible’: the move is always from content words (or full words in Chinese *sh ě í*) to empty words (*xūcí*) or from lexical items to grammatical elements, or from less grammatical to more grammatical, never in the opposite direction. Given the theory of unidirectionality, it has been hypothesized that diachronically all minor categories (preposition, conjunction, auxiliary verb, pronoun, demonstrative, etc., i.e. relatively ‘closed’ categories) have their origins in major categories (relatively ‘open’ lexically, such as nouns and verbs).⁸ This assumption has been proved to be particularly valid in Chinese. It is however probably better to treat unidirectionality as a defining characteristic of grammaticalization (grammaticalization is unidirectional by definition) than a principle. See Lass (2000), Wu (2003).

Thus, the only direction of change involving a grammaticalization process is:

- (3) Discourse > Syntax > Morphology > Morphophonemics > Zero (Givón 1979: 209),
Lexical item > Grammatical element (Full word > Empty word), and Less
grammatical > More grammatical.

It is impossible to have: * Grammatical element > Lexical item, or * More grammatical > Less Grammatical.⁹

This being said, counterexamples to unidirectionality began to be discussed in the 1990’s, with well-documented instances of what has then been called ‘degrammaticalization’. Some have argued that such counterexamples are not damaging to the unidirectionality

⁷ Thanks to Cao Guangshun who has kindly suggested this potential case of exaptation.

⁸ See Talmy (2000: 22) for a definition of open classes (‘quite large and readily augmentable relative to other classes’) and closed classes (‘relatively small and fixed in membership’).

⁹ As grammaticalization is not an equivalent of grammatical change, but only one of its processes, claiming that grammatical items originate in lexical ones does not entail hypothesizing a language stage, at the origin, in which everything would be lexical, or that all languages will converge one day to have only grammatical elements.

hypothesis because they are sporadic (for example, Haspelmath 2004, Hopper and Traugott 2003, Wu 2003, 2005). They did not succeed, however, in trying to account for the exceptions to unidirectionality. Others (a growing number) have drawn the opposite conclusion and concluded that no special type of change such as grammaticalization even exists.

What is then in fact ‘degrammaticalization’? It is the opposite of grammaticalization, i.e. a change from a grammatical element to a lexical item (or from an empty word to a full word), or from a more grammatical element to a less grammatical one. It is a move from morphology to syntax, or from syntax to discourse. Some examples are:

- (4) English *up* [+ Preposition] > *up* [+ Verb] as in *up the ante*;
 English *-ism* [+ Suffix] > *ism* [+ Noun];
 English *dare* [+ Auxiliary verb] > *dare to* [+ Verb];
 English *calendar* [+ Noun] > *to calendar* [+ Verb];
 English *text* [+ Noun] > *to text* [+ Verb] as in *just text me*;
 French *trop* [+ Adverb] > *trop* [+ Adjective];
 French *pour* [+ Preposition] > *pour* [+ Noun];
 French *contre* [+ Preposition] > *contre* [+ Noun];
 Seto/Võru (South Estonian) *-ldaq* (+ Suffix) > *-ldaq* (+ Clitic) ‘without’;¹⁰
 Modern Greek *ksana-* [+ Prefix] > *ksana* [+ Clitic] ‘again’;
 Estonian *-p* [+ Prefix] > *ep* [+ Adverb];
 Spanish *-mos* [+ Suffix] > *nos* [first plural personal pronoun] (Janda 2001: 301);
 Irish *-muid* [+ Prefix] > *muid* [first plural personal pronoun].

In Chinese, where the grammaticalization process (within the reanalysis mechanism) is probably more important for grammatical change than in the Indo-European languages, the cases of ‘degrammaticalization’ are UNSURPRISINGLY rarer. One can nevertheless cite:

- (5) Chinese Adverb *tóng* ‘together’ > Noun *tóng* (such as *sān tóng* ‘the three together’);
 Chinese Suffix *huà* ‘-ization’ > Noun *huà* (as in *sì huà* ‘the four -izations, for the four modernizations’);
 Chinese Demonstrative pronoun *shì* ‘this’ > Copula, Verb *shì* ‘to be’;
 Chinese Demonstrative pronoun *zhī* ‘this’ > Verb *zhī* ‘to go’;
 Preposition *bǎ* (a pre-verbal object marker) > Verb *bǎ* for sentences like *wǒ bǎ nǐ zhìge hùchóng* [1SG – object marker – 2SG – this + CLASSIFIER – stupid prat] ‘You stupid prat!’ (see Jiang & Yang 2006).

The cases of fission raised above (in [2], section on Analogy) could also be considered as cases of ‘degrammaticalization’. As seen above, these cases of ‘degrammaticalization’ are subsumed by the mechanism of analogy, as ‘degrammaticalization’ cases are ordinary analogical changes of the exemplar-based type.

Actually, there is no need to talk of ‘degrammaticalization’ which violates the defining characteristic of unidirectionality for the grammaticalization process. All the cases of ‘degrammaticalization’ are *de facto* cases of lexicalization, which is another important process of language change. Van der Auwera (2002: 20), Ramat (1992, 2001) do not make any strict difference between ‘degrammaticalization’ and lexicalization.

¹⁰ Widely attested in Finno-Ugric, the promotion of the abessive case suffix (‘without’) to a clitic and even to an independent postposition has been triggered by analogy with its antonym, the comitative clitic *gaq* (‘with’).

Like grammaticalization, lexicalization, though far less systematically studied than grammaticalization, has been conceptualized in different ways.¹¹ In my view, it should not be defined as an ‘adoption of words into the lexicon’, as did Dong (2012), i.e. a process of word-formation, including, for Chinese, the main operations of compounding, derivation, reduplication. Being restricted, as suggested by Lehmann (1989, 2002) to ‘a process in which something becomes lexical’ (2002: 14) is not enough. The source of the process should be precisely indicated.¹² Lexicalization should be simply viewed as a historical process, as a reverse process of grammaticalization, as a development of concrete meanings from grammatical meanings, of full words (lexical items) from empty words (grammatical elements), a lexical item being a type of formal unit which belongs to the lexicon (that should not, in this case, be understood as an inventory of both ‘lexical’ and ‘grammatical’), sometimes called a lexeme, when typically contrasted with a grammatical morpheme or ‘gram’ (Brinton & Traugott 2005: 9-10)

7. External Borrowing

Analogy and reanalysis (including grammaticalization) are internal mechanisms of change. There is a third and external one, external borrowing through language contact. Borrowing, contrary to analogy, but like reanalysis, can introduce an entirely new structure into a language, and in this sense can produce a radical change. It is an ‘attempted reproduction in one language of patterns previously found in another’ (Haugen 1950 quoted in McMahon, 1994: 200).

Syntactic borrowing is probably both the least studied and the most abused area in syntactic change. Abused, because due to its explanatory power on the causes of change (its most obvious evidence being sheer necessity), this mechanism has often been evoked without a real identification of the source of the borrowing. Many examples can be cited for Chinese, as, for instance, the incorrect claim made by Song (1991) that the aspectual markers *le* or *zhe* have been borrowed from Altaic languages.

Little studied, because historical linguists have traditionally been strongly prejudiced in favor of internal mechanisms for linguistic changes. This is probably because the direction and extent of borrowing, and the kinds of features affected, are determined more by non-linguistic factors than by linguistic ones. The methodological inclination has thus been to consider the possibility of external causation only when all efforts to find an internal motivation have failed.

However, especially since the important works of Thomason and Kaufman (1988) and Thomason (2001), many scholars now consider that the possibility of borrowing as a cause for syntactic change should always be kept in mind. Li (1983, 1995) and Yue-Hashimoto (1993) have both, for example, emphasized borrowing as being an important force acting in favour of syntactic change in Chinese.

Several universals and principles of borrowing have been proposed, but they remain rather ill-defined. Constraints have also been identified (notably by Moravcsik 1978), but most of them appear to be too restrictive. Some of these debatable universals, principles and constraints are the following:

¹¹ For a good introduction to the lexicalization studies and a discussion of the different conceptualizations and definitions of lexicalization, see Brinton & Traugott (2005: 1-31), and Xing (2012: 1-19) and Dong X. (2012) for Chinese.

¹² The definition given by Anttila (1972: 151) ‘whenever a linguistic form falls outside the productive rules of grammar, it becomes lexicalized’ is not explicit about it, even if he considers that the ‘development of adverbs from nouns is also a case of lexicalization.’

Borrowing moves from the more to the less prestigious language. This condition is not absolute. We know many examples of Chinese structures borrowed from Altaic languages (Khitan, Jurchen, Mongolian, Mandchu) that have never had a more prestigious status than Chinese. Mei (1988) has thus convincingly showed that the opposition between *zánmen* 'we, inclusive' vs *wǒmen* 'we, exclusive,' which appeared in Chinese under the Jin (12th century), has been borrowed from Altaic languages, either Khitan or more probably Jurchen. Were these Altaic languages at that time more prestigious than Chinese? Probably not.

Basic vocabulary is only rarely affected. We nonetheless know that English borrowed a good deal of basic vocabulary from Norse: *sky*, *skin*, and even the pronouns *they*, *them*, *their*.

Structural compatibility is supposed to be required. Weinreich (1953: 25), after Jakobson, has stressed that a language 'accepts foreign elements only when they correspond to its tendencies of development.' However, any insistence that grammatical borrowing happens only in situations of shared structural similarities is simply wrong. Many examples involve grammatical borrowing from typologically divergent languages. See Li (1983, 1985, 1995), Mei (1988) for borrowing into Chinese from Altaic languages. Some of the Sinitic languages of Northwestern China (such as Linxia, Tangwang, Gangou) have even borrowed cases (accusative, genitive, dative, locative, instrumental, etc.) from Altaic languages (Mongolic or Turkic languages). See Peyraube (forthcoming).

Some categories (lexical elements) are said to rank highest in terms of borrowability, others lowest, if borrowable at all (grammatical forms). This claim is also debatable. An absolute ranking of this nature provides little real satisfaction.

Basic patterns are difficult to borrow. But a rather large number of cases have been reported in which basic word order patterns have in fact been borrowed. Faarlund (1990: 84) even claims that 'all known instances of a change from VO to OV are due to contact with OV languages.' Thomason and Kaufman (1988: 55) also believe that the word order of a language is one of the syntactic features that is very easily borrowable.

To sum up, if borrowing must indeed be accorded a more significant position among the three mechanisms of syntactic change, it is safer to consider all the proposed universals and principles of borrowing as general tendencies, instead of as absolute constraints. And it could be the case that language contact and the outcome of borrowing could have, at best, a trigger effect, releasing or accelerating grammatical phenomena which evolve independently.

Concerning the mechanism of external borrowing in grammatical change, the model of contact-induced grammatical change presented in Heine and Kuteva (2003, 2005) has begun to be applied in Sinitic and other East Asian and Southeast Asian languages by Wu (2013), Peyraube (forthcoming). The term 'borrowing' has been replaced by the term 'transfer'. There are transfers of grammatical meanings and structures from one language (the model language M) to another language (the replica language R) leading to grammatical replications. A contact-induced transfer is defined as follows: 'If there is a linguistic property X shared by two languages M and R, and these languages are immediate neighbors and/or are known to have been in contact with each other for an extended period of time, and X is also found in languages genetically related to M but not in languages genetically related to R, then we hypothesize that there is an instance of contact-induced transfer, more specifically that X has been transferred from M to R.' (Heine & Kuteva 2005: 33).

Over the past five years, a good amount of research on contact-induced grammatical change has been undertaken concerning Chinese and Altaic languages (Khitan, Jurchen, Mongolian and Manchu) that have been particularly important during the Liao (907-1125), Jin (1115-1234), Yuan (1206-1368), and Qing dynasties (1644-1911). See Cao & Chen (2009), Cao (2012), Djamouri (Forthcoming), Yu (2011, 2013), Yang (forthcoming a, forthcoming b), Zu (2007, 2009), Zhao (2010). A comparative analysis has also been made, on the largest attainable scale, of the grammatical transfers identified in historical documents

with those observable today in several Sinitic languages and Altaic languages (Turkic, Mongolic and Tungusic) in Northwestern China.

This research has thus also contributed to a better understanding of the typological characteristics that distinguish different Sinitic languages, as proposed by Chappell (2007) and of the issues involved in linguistic areas (see Chappell, forthcoming), reinforcing the links that exist between historical linguistics (and especially grammatical change) and typological linguistics.

8. Motivations of the grammatical change

Concerning the motivations of grammatical change, and no longer the mechanisms discussed above, there has not been much progress in research on this issue during the last decade. The main motivation has been said to be semantic-pragmatic change, itself refined by the three following mechanisms: metaphorical extension, pragmatic inferencing (or metonymization), and subjectification (and inter-subjectification).

As stated by Brinton and Traugott (2005: 28-29), subjectification is important as ‘the development of grammatical forms conceptually involves the recruitment of material to express the grammatical relations that the speaker envisions.’ As for metonymy, it is a cognitive process in which ‘one conceptual entity ... provides access to another conceptual entity.’ (Kövekkes & Radden 1998: 39). See Traugott and Dasher (2002), Peyraube (2005).¹³

If one looks carefully at the three mechanisms of grammatical change one by one, it can be assumed that analogical change has the two following main motivating factors: (i) A > B motivated by the abnormality of complexity of A, or by the generality or simplicity of B (pull/push model); (ii) semantic-pragmatic change, especially the metaphorical extensions that have been very often invoked in early work on grammaticalization when semantic change was considered (see Peyraube & Li 2008, 2012 for the semantic-pragmatic change in Chinese as a motivation of the mechanisms of analogy). The motivations for reanalysis are also (i) semantic-pragmatic change, but more pragmatic inferencing or metonymisation than metaphorical extension, which is more related to analogy; (ii) subjectification and/or inter-subjectification (Traugott 2004), (iii) other motivations such as phonological change, typological tension and or structural requirements apply to both analogy and reanalysis, but they are secondary. They did not play an important role in Chinese grammatical change and some of them (especially structural requirement and typological tension) should probably be better viewed as mechanisms and not motivations. Finally, the main motivation for external borrowing is obviously language contact.

9. Conclusion

There are two – and only two – powerful internal mechanisms of grammatical change proposed in this paper: analogy and reanalysis. In this model, grammaticalization, ‘degrammaticalization’, and exaptation are secondary operations, included either in analogy or in reanalysis. There is a third important mechanism, but one that is external: borrowing. Analogy (or extension, or generalization) comprises what is often called ‘degrammaticalization’ (see the fission examples above) that are actually lexicalization. Reanalysis comprises grammaticalization, exaptation, but also most of the lexicalization cases

¹³ Liu, Cao & Wu (1995) identified four motivating factors of grammatical change in Chinese: change in syntactic position, semantic change, pragmatic influence, reanalysis. It is not clear, however, why they considered the change of syntactic position and above all reanalysis as a motivation of grammaticalization. See also Cao (2001), Jiang (2004), Mei (1994, 1996), Wu (2005).

that belong to grammatical change (since the sources of the change are grammatical morphemes), as well as lexical change.

Analogical change has multiple motivating factors: (i) A > B can be motivated by the abnormality or complexity of A, or by the generality or simplicity of B (pull/push model); (ii) the main motivation is semantic-pragmatic change, especially on the form of metaphorical extensions. Structural ambiguity by itself does not trigger analogy.

The main motivation for reanalysis is also semantic-pragmatic change, but more in terms of pragmatic inferencing (or metonymisation) than in terms of metaphorical extension (which is more related to analogy). Another mechanism of semantic-pragmatic change, that plays an important role as a motivation of reanalysis is subjectification (and inter-subjectification).

The main motivation for external borrowing is obviously language contact. Finally, we should be more aware of the contact-induced change, as the situation today is about the same as it was ten years ago, when Traugott (2001) wrote: ‘Most of analyses up to now have been conducted largely in the context of putative homogeneous developments. When we look at contact situations, complications arise.’

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