ARE THE BETTER, THE SHORTER, THE EASIER FORMS GAINING THE UPPER HAND? A HISTORICAL STUDY

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Abstract: A close examination and comparison of Archaic Chinese and Chinese of subsequent stages reveals an evolution toward increased grammatical complexity. This suggests a more fundamental historical motivation that creates results counter to what would be expected from the simplification and preference hypothesis: the speaker's expressivity. Chinese grammarians have observed that several complex grammatical codings in Mandarin were absent in Archaic Chinese. This paper suggests that these few seemingly coincidental historical developments (from less to more overt grammatical codification) are not isolated phenomena but are part of an overall historical accretion process.

Keywords: language change, historical syntax, accretion.

1. INTRODUCTION

"A struggle for life is constantly going on amongst the words and grammatical forms in each language. The better, the shorter, the easier forms are constantly gaining the upper hand." So says the 19th century linguist Max Müller, cited and endorsed by Darwin (1871). This theory has been criticized elsewhere on theoretical grounds, e.g. Greenberg, 1959; Aitchison 1991; Labov 1973. The purpose of this paper is to show that data from Chinese do not support this theory. A study of the historical development of Chinese, on the contrary, indicates that the shorter, the easier forms are losing out to more complex constructions. As such it also refutes the explanations of language change that in general subscribe to the principle of economy as a leading factor, such as the pursuit of ease (Paul 1880, as discussed in Weinreich *et al.* 1968). preference-based principle (Hawkins 1990), or any other explanation that views linguistic changes as gravitational toward a simpler grammar. What is presented here, instead, is an assemblage of historical phenomena of accretion that took place in the history of Chinese. This paper draws attention to the historical process of accretion that has been overshadowed by the

erosion/attrition aspect of grammaticalization which has dominated the linguistic scene in the recent years.

2. ACCRETION AND SUGGESTION

A close examination and comparison of Archaic Chinese and Chinese of subsequent stages reveals a sequence that may be characterized as an evolution toward an increase of (a) size of independent words or verbal units (i.e. toward compound or phrase-like words) and (b) grammatical complexity. The former is evidenced in the gradual change from the Archaic preponderance of monosyllabic to the Modern predominance of disyllabic words. The latter is exhibited in the increase of overt grammatical specifications in Modern Mandarin. The meaning of these modern specifications were deduced mostly from lexical semantics or from discourse environment in Ancient Chinese. It has long been commonly observed by Chinese grammarians, concerning several grammatical structures, that the complex grammatical codifications as they exist today were absent in Archaic Chinese (see e.g. Wang 1985). This paper takes a step further and suggests that these seemingly coincidental historical occurrences (from less to more overt grammatical codification) are not isolated phenomena. They are part of the historical process of accretion. The general direction of change is illustrated in (1).

(1) Direction of syntactic change in Chinese

FROM Archaic:		TO Modern:
a) verbal unit less complex	-->	more complex
b) fewer grammatical encodings	-->	more grammatical encodings
c) more multifunctional particles	-->	more specialized grammatical particles
d) heavier reliance on pragmatics	-->	more overt syntactic means
e) shorter sentences/phrases	-->	longer sentences/phrases
f) more reliance on loose	-->	more asymmetrical tight
coordinate conjoining strategy		complementizer strategy

To limit the scope of this paper we will not present the historical changes stage by stage. Instead of tracing the historical origin of a particular modern form, as is generally the practice in historical linguistics, we juxtapose an early form with a modern form to highlight the differences. The method we adopt here is that of comparison. We ask: in a similar context (C), what does it take, in terms of grammatical devices (G), for the modern speaker to express the same message (M) that is expressed in the Ancient form (F) which happens to contain a grammatical construction (G). That is, in doing the comparison the following is assumed:

(2) Comparison of grammatical differences
       (AC: Archaic Chinese; MM: Modern Mandarin)

AC		MM	
C1	=	C2	Context
M1	=	M2	Message
F1	≠	F2	Form
G1	≠	G2	Grammatical means employed

Examples of F1 are taken from Archaic or Ancient Chinese texts (more commonly called Classical Chinese), those of F2 from modern Mandarin texts. The latter are obtained from books on Ancient Chinese by modern grammarians; the sources are identified following the examples. For the sake of objectivity, Mandarin examples constructed by this author have been kept to a minimum. Where identifications are not provided the examples are this author's, as are all glosses and English translations of data in this paper.

For the historical sources of modern grammatical forms (such as the aspectual marker *le*) the reader is referred to works such as the comprehensive *Gu Hanyu Yufa Ji Qi Fazhan* ('Grammar of Ancient Chinese and its development') by Yang and He (1992). Data are taken from existent well-known documents from the 5th cent. BC onward to Transformation texts of the 8-10th cent. AD, and to present Mandarin. In all of these the modern forms are shown to be more complex than their Ancient correspondents.

The Archaic examples cited here may seem to be very terse and short in form and their oral character may seem to be in doubt. But as Oeyang (1974:54), referring to classical works such as the Confucian *Analects* or *Mencius*, observed, these works have become so familiar a part of "literature", that one overlooks their oral provenance. Despite their importance to philosophy and literature, they were first and foremost oral discourses. The ubiquitous sentential ending attitudinal particles (*yan, er, zai, hu, ye, yi*, etc.) in these Classical texts also attests to the fact that they were at least largely based on oral discourse in Late Archaic times (ca. 6th cent. BC - 1st cent. AD).

The term 'complexity' in this paper is defined in terms of overt grammatical codification. Complexity or lack of it in overt codification cannot be taken to characterize a language as complex or simple, if indeed such differentiation in language exists at all. It is impossible to measure relative conceptual or cognitive complexity between encoding in overt grammatical forms and expressions or implication in semantics and pragmatics, which is made possible by the immensely capable human mind. No matter how complex a language may appear to be, what it codes, on account of its being a symbolic system, is actually minuscule compared to the complexity and capability of the operation of the mind that supports a language system.

3. COMPARISON OF OVERT CODIFICATION BETWEEN ANCIENT AND MODERN

In what follows we will present first historical disyllabicizaton first and then examples of increase of grammatical codification. The grammatical constructions included in this section are: the causative pattern, passives, the post-verbal *de*-complementizer construction, the *ba*-disposal structure, and the aspectual system.

3.1 Disyllabicization

Morphemes in Chinese are basically monosyllabic. In general, a word consists of one or two morphemes. Words in Ancient Chinese were overwhelmingly monosyllabic, whereas words in Modern Chinese are mostly disyllabic (Lu 1984:422). The nature of Chinese morphology is not derivational but compounding. According to Zhiyi Zhang (1987:18) percentages of multisyllabic (essentially disyllabic) words in the Chinese lexicons throughout the stages are: (1) 10% before the 2nd century BC, (2) 20% from the 2nd century BC to the 5th century AD, (3) 40-70% between the 6th and 19th centuries, and (3) 70-80% in Modern Mandarin. Disyllabicization increases specification. In a discussion on monosyllabic words and polysemy, Zhang W. (1987:34), for example, counted words that begin with *f-* in the dictionary *Xiandai Hanyu Cidian* (modern Chinese dictionary) and found that there were 70 monosyllabic words and 1575 disyllabic words. Of the 70 monosyllabic words, 62 (i.e. 88.6%) were polysemous, whereas 229 (i.e. 15%) of the 1575 disyllabic words were polysemous. To us, since the historical sources of the component syllables were typically ancient lexical morphemes, this general trend from monomorphemic to dimorphemic words suggests that the speaker's expressivity (i.e. the effort to make expressions more specific, distinct, or more overtly coded) is the main motivation force underlying the change.

The most important historical change that has far-flung influences in Chinese grammar is the disyllabicization process, which becomes noticeable around the 3rd century BC, although disyllabic words were not hard to find before this time. According to a study by Xiang (1980), as discussed in Pan *et al.*, 1993), on the vocabulary contained in the *Book of Poems* (a collection of folk ballads before the 6th cent. BC), 1329 (about 30% of the entire vocabulary)

were disyllabic. Disyllabicizaton continued for a long time, practically to modern times. The result can be seen in a comparison of vocabulary between Archaic and Modern Mandarin, shown in (3) bellow. (AC: Archaic Chinese; MM: Modern Mandarin)

(3) Change of morphology

	a. AC	b. MM	MM literal meaning
'help'	zhu	bangzhu	help-aid
'walk'	xing	zoulu	walk-road
'know'	zhi	zhidao	know-way
'speak'	yan	shuohua	speak-word
'wear a hat'	guan	dai maozi	wear-hat
'be full'	bao	chibao	eat-full
'discard'	qi	rengdiao	throw-turn
'gather'	ju	jiqilai	gather-up-come
'lengthen'	chang	lachang	pull-long
'lie down	wo	tangxia	lie-down
'put down'	zhi	fangxia	put down
'return'	gui	huiqu	return-go
'die'	si	siqu	die-go
'lose'	shi	shiqu	lose-go

The Modern predilection for disyllabic words, as opposed to the ancient monosyllabic tendency, also corresponds with a loss of independence on the part of single morphemes (Lu 1984). Take verbs for instance: in Modern Mandarin a monosyllabic verb usually cooccurs with (a) a generic object noun (e.g., *nian shu* literally, read book 'to study'), (b) a complement, such as an aspect-like morpheme (*nian wan* literally read complete 'finish reading'), or (3) a heavily supported (i.e. restricted) context for contrasting purposes (*wo nian, ni xie* literally I read, you write 'I'll read it out and you jot it down.') An unsupported (in the sense described above) monosyllabic verb is typically unacceptable, whereas it is the norm in Ancient Chinese.

Longer word length itself does not necessarily have much significance, but the increase in the word or word-like unit has enabled disyllabicity to take on a new dimension (Chen 1997). It creates a morphology (word structure) in the language that was lacking in Ancient Chinese. This kind of morphology, unlike that in the Indo-European languages, is a concatenation morphology. Often the added word component is recurrent (especially those attaching to a verb) -- so productive that it can virtually be regarded as a grammatical affix. The grammatical characteristics of these added words vary: some are more productive/abstract than others and some are more salient in lexical meaning than others. For instance, morphemes like *diao* 'to turn around > to drop >, finish off/up' or *wan* 'complete, done', which are conducive to aspectual interpretation, as exemplified in (4), have continually expanded their scope of cooccurrent verbs, so much so that they have become more like verbal aspectual suffixes than mere additional syllables.

(4) Quasi-grammatical morphemes in Modern Mandarin

'sell out'	mai-diao	sell-fall/turn
'eat up'	chi-diao	eat- fall
'chop off'	kan-diao	chop-fall
'spend'	hua-diao	spend-fall
'use up'	yong-diao	use-fall
'finish selling'	mai-wan	sell-finish
'finish eating'	chi-wan	eat- finish
'finish chopping'	kan-wan	chop-finish

Lexical-grammatical morphemes like the those shown in (4) have different functions. Although both *diao* and *wan* express an accomplishment aspect, they have further distinct functions. *Diao* tends to emphasize the completion of the action in terms of the object/experiencer: the accomplishment is in getting rid of the object. That is, the object has vanished (e.g. *gan diao* 'dry up'); therefore, it does not cooccur with creation verbs like 'to make' or 'to cook'. *Wan*, on the other hand, tends to emphasize that the agent has finished the task. Thus the former cannot cooccur with a root morpheme to form a word unit to expressing any meaning related to creation, as shown in (5a) and (6a), whereas the latter can, (5b) and (6b).

(5) a. *zuo diao qunzi
        make drop skirt
        'finish making a skirt'
     b. zuo wan qunzi
        make finish skirt
        'finish making a skirt'

(6) a. *da diao xin
        type drop letter
        '*finish typing a letter'
     b. da wan xin
        type finish letter
        'finish typing a letter'.

Cooccurrence restrictions like these which were brought about by disyllabicization contribute to modern grammatical complexity.

3.2 Historical grammaticalization of verbs gave rise to the modern aspectual system

Modern aspectual markers such as the perfective *le*, stative *zhe*, progressive *zai*, and experiential *guo* were absent in Ancient Chinese (see e.g. Wang 1985). For instance, it was not until the 8th century that *le* gradually emerged as a perfective marker (see Chen 1998). In the verb that means 'to look' for example (shown in (7) below) the different nuances of aspect, (7b), are encoded by affixes that are tightly bound to the verb in Mandarin. That is, the modern verbal unit becomes more complex. In Ancient Chinese the meanings of these aspectuals were either conveyed by different lexical verbs or left to context or other cooccurring lexical items in the sentence. Modern Mandarin not only has the choice of different verbs, as the Archaic Chinese does, but also has a verbal aspectual system to code different aspects of an action.

(7) Aspectual markers: Archaic vs. Modern

a. ARCHAIC:	b. MODERN:	AFFIX TO THE VERB:
mu 'look'	kan <u>zhe</u>	Stative ASP (ASP-St)
	<u>zai</u> kan	Progressive ASP (ASP-Prg)
	kan <u>hao</u>	Resultative
	kan <u>le</u>	Completive, Perfective (ASP-Prf)
	kan <u>xiaqu</u>	Continuative
	kan <u>qilai</u>	Inchoative ASP (ASP-Inc)

The following examples in (8)-(10) show how the Archaic and the Modern differ in actual text. Those in (a) are from *Shi Ji* ('records of history') by the great historian Sima (n. 145 BC), in Late Archaic prose. Their modern renditions by modern grammarians are shown in (b). (Verbs with their aspectuals, if any, are underlined.)

(8) a. huo yiwei si, huo yiwei wang. (1st cent. BC, *Shi Ji*)

or be <u>die,</u> or be <u>escape.</u>
'[Some] thought [he] was dead; [some] thought [he] escaped.'
b. youde ren yiwei ta si LE, youde ren yiwei ta tao pao LE. (Wu 1980:157)
some people think he <u>die ASP-Prf</u>, some people think he <u>escape-run ASP-Prf</u>
'Some thought he died; some thought he escaped.'

(9) a. zu zhong wangwang yu, jie zhi mu Chen Sheng.   (1st c. BC, *Shi Ji*)
soldier among everywhere <u>talk,</u> all <u>point eye</u> Chen Sheng
'Soldiers talked among themselves; all pointed at and eyed Chen Sheng.'
b. shizu daochu ZAI taolun, dou zhi ZHE, kan ZHE Chen Sheng. (Wu 1980:160)
soldier everywhere <u>ASP-Prg discuss,</u> all <u>point ASP-St, look ASP-St</u> Chen Sheng
'Soldiers were talking among themselves, all pointing at and eyeing Chen Sheng.'

(10) a. yongzhe xiao er ying yue ... (1st cent. BC, *Shi Ji*)
worker <u>laugh</u> and answer say...
'The workers laughed and answered ...'
b. Changgong-men xiao LE QILAI, huida shuo ... (Liao 1981:155)
worker-pl <u>laugh ASP-Prf ASP- Inch,</u> answer say ...
'The workers began to laugh and answered ...'

3.3 Differentiation of verbal categories and increase of formal markings on participant roles

Monosyllabic words in Ancient Chinese tend to be multifunctional in grammatical category and meaning (Wang 1981:168). Some historically added morphemes encode causality. Verbs in Ancient Chinese were more versatile (or less specific); they could typically function transitively or intransitively and they allowed context or the semantics of other cooccurring lexical items in the sentence to carry the burden of such distinction. Verbs in Modern Chinese, however, tend to differentiate these categories by formal markings, as shown in (11).

(11) Transitive versus intransitive words

	a. AC	b. MM	MM literal meaning
'mistake'	wu	tr nong-cuo	do-wrong
		int cuo-wu	wrong-mistake
'(to) dirty '	wu	tr nong-zang	do-dirty
		int ang-zang	dirty
'destroy'	hui	tr nong-huai	do-broken
		tr po-huai	destroy-broken
		int huai-le	broken-ASP-Prf

All this is also evidence of increase complexity in morphology, characterized by concatenation of morphemes, which were independent words at earlier stages.

The formal marking of transitivity also shows up in other parts of the sentence, often by means of another grammatical marker that indicates the recipient of the action, as seen in (12)-(13).

(12) a. AC: yi qi shi (5th century BC, *Zuo Zhuan*)
clothe PRO corpse
'to clothe the corpse'
b. MM: gei shiti chuan shang yifu. (Yang and He 1992:531)
PP-Ben corpse wear on clothes
'to clothe the corpse'

(13) a. AC: fugui jiangjun (1st cent. BC, *Shi Ji*)
rich-noble general
'to enrich and ennoble the general'

    b. MM: shi jiangjun fugui. (Liao 1981: 44)
        Cause general rich-noble
        'to enrich and ennoble the general'

The history of Chinese also saw grammaticalization of full verbs into modern co-verbs, or prepositions, which have functions similar to those of case markers in Western languages. These specialized prepositions (PP) (most of them still carrying with them various degrees of lexical quality, as evidenced by their cooccurrence restrictions) mark commitative, instrumental, comparative, locative, etc. The information contained in these case markers tends to be either expressed covertly (as interpretable from the lexical verb or context) or marked by a more multifunctional preposition, such as *yu*, shown in (14)-(15), in the Archaic language. (PP-yu: a general preposition; PP-Comp: comparative; PP-Loc: locative)

(14) a. AC: Wo ze yi yu shi. (5th cent. BC, *Confucian Analect)*
          1sg then different PP-yu this
          'I, on the other hand, am different from these [people].'
    b. MM: wo gen zhe xie ren dou bu yiyang
          1p PP-Comp this CL-pl people all not same
          'I am different from all these people.'

(15) a. AC: Zi yu shi ri ku. (5th cent. BC, *Confucian Analects)*
          master PP-yu his day cry
          '[if] the Master wept on this day [of mourning]'
    b. MM: Kongzi zai na yi tian ku le.
          Confucius PP-Loc that one day cry ASP
          '[if] the Master wept on this day [of mourning]'

Modern Mandarin has more prepositions (Wu 1980; Wang 1981); it also relies on prepositions more than the ancient language (Chen 1995) where cases (participant roles) tend to be covertly contained in, or inferred from, the semantics of the verb. Their appearance also contributes to a few new syntactic patterns (for sentence patterns in Mandarin see e.g. Guo 1981). Among them are the *bei*-passives (see e.g. Chen 1994) and the *ba*-disposal construction (for the emergence of this construction see e.g. Mei 1990), two notorious modern constructions the descriptions of which pose a perennial challenge to Chinese grammarians. Part of the difficulty is related to the fact that these two constructions also code attitudinal meanings. Structurally, one of the grammatical properties of these two types of sentence is that the verb is typically complex, often with one morpheme indicating cause and one expressing result. Compare the following Archaic and corresponding modern examples. (PP-yu: a general preposition; BEI-Pass: *bei*-passive marker; BA-Disp: *ba*-disposal, PP-Ben: preposition as a benefactive case marker)

(16) a. AC: bing po yu Chen She, di duo yu Liu shi. (1st cent. AD, *Han Shu)*
          soldier defeat PP-yu Chen She, land grab PP-yu Liu clan
          'The army was defeated by Chen She; the land was taken away by the Liu clan.'
    b. MM: Jundui bei Chen She dakua le, difang bei Liu jia duo qu le. (Wu F 32:18]
          army BEI-Pass Chen She beat collapse ASP, land BEI-Pass Lius grab go ASP
          'The army was defeated by Chen She; the land was taken away by the Liu clan.'

(17) a. AC: Qi Huan Gong qi zhi. (2nd cent. BC, *Zhan Guo Ce)*
          Qi Huan Gong wife PRO.
          Literally, 'Duke Qi Huan wifed him.'
          'Duke Qi Huan Gong [gave] him [his daughter as] wife.'
    b. MM: Qi Huan Gong ba nuer jia gei ta zuo qizi. (Liao 1981:45)
          Qi Huan Gong BA-Disp daughter marry PP-Ben 3sg do wife.
          'Duke Qi Huan Gong gave him his daughter as wife.'

(18) a. AC: Meng Chang Jun ke wo. (2nd cent. BC, *Zhan Guo Ce*)
             Meng Chang Jun guest 1sg.
             'Meng Chang Jun treated me like a guest.'
     b. MM: Meng Chang Jun ba wo dang keren kandai.
             Meng Chang Jun BA-Disp 1sg as guest treat.
             'Meng Chang Jun treated me like a guest.'

3.4 Verbal subordinative markers

Modern adverbial modifier markers, such as complementizer *-de* (derived from a full verb in Late Archaic Chinese (Yang and He, 1992:644)), are yet other modern developments; they were absent in Archaic Chinese (Lu 1984; Wang L. 1985; Yang, J. 1959). The complexity of the verbal component becomes even more pronounced in when the verb has an object -- the verb must be repeated so that the complement immediately follows the verb rather than the object, as shown in (19b). This example has the form <u>Verbi Obj Verbi+de+Complement</u> (where Verbi indicates identical verb), a structure very different from its Classical counterpart, (19a), which contains <u>Verb Obj complement</u>. (AD-COMP: post verbal adverbial complement *-de*; PRT-SE: sentential ending particle; EXCL: exclamation marker)

(19) a. AC: Qin wang yin jiu han.   (1st c. BC, *Shi Ji*)
             Qin king drink wine happy
             'The king Qin drank [and was] happy.'
     b. MM: Qin Wang he jiu he de hen gaoxing. (Liao 1981:183)
             Qin king drink wine drink AD-COMP very happy
             'King Qin drank wine [so much that he] was very happy.'

(20) a. AC: wei Changan Jun ji duan ye (2nd cent. BC, *Zhan Guo Ce*)
             PP-Ben Changan Jun plan short PRT-SE
             '[I think that you] have not planned carefully for Changan Jun.'
     b. MM: nin wei Changan Jun kaolu de bu yuan a (Liao 1981:115)
             you PP-Ben Changan Jun plan AD-COMP not far EXCL
             'I think that you have not planned carefully for Changan Jun."

Complementizers are basically marker of subordinating structure. Subordination in Modern Mandarin is typically conveyed by structural subordinators such as the adverbial complementizer *-de* shown above. Archaic Chinese tends to mark it with a general connector, if it is marked at all. Thus, in terms of formal codification, the distinction between subordinaiton and coordination is relatively opaque in Archaic Chinese but is more distinctly marked in Modern Mandarin, as shown in (21) and (22). (ASP-St: stative aspect marker)

(21) a. AC: Guai zhi ke ye, <u>er</u> wei zhi fei ye. (3rd cent. BC, *Xun Zi*)
             strange PRO allowed PRT, <u>but</u> fear PRO wrong PRT
             'It is all right to consider it strange, but it is not right to be afraid of it.'

     b. MM: juede ta qiguai shi keyi de, <u>danshi</u> bu neng haipa ta. (Liao 1981:141)
             feel PRO strange be okay PRT, <u>but</u> not should fear PRO
             'It is all right to consider it strange, but it is not right to be afraid of it.'

(22) a. AC: Lao fu shi nian <u>er</u> xing. (2nd cent. BC, *Zhan Guo Ce*)
             old woman depend vehicle <u>and</u> walk
             'The old woman moved along while holding on to the vehicle.'

     b. MM: Lao fu kao <u>zhe</u> chezi xingdong. (Liao 1981:25)
             old woman depend ASP-St vehicle walk
             'The old woman moved along while holding on to the vehicle.'

This continued even to the time of the Bianwen 'transformational texts' (8-10th century). For example, the two actions 'to lower the voice' and 'to respond' in (23) were connected by the general connector *er* that we have seen in (21a) and (22a) above, but the modern rendition makes use of the subordinator *-de*, (23b). (AD: pre-verbal adverbial marker)

(23) a. BW: Zhoushi di sheng <u>er</u> dui yue: ... *(Zhuo Ji Bu Zhuanwen*, Yang, Jialuo 1989:59)
　　　　　　Zhoushi lower voice <u>and</u> respond say: ...
　　　　　　'Zhou lowered her voice and responded, ...'

　　　b. MM: Zhoushi di sheng <u>de</u> dui ta shuo: ...
　　　　　　Zhoushi low voice <u>AD</u> PP-to 3sg say: ...
　　　　　　'Zhou lowering her voice said to him, ...'

In (21)-(23) we see that Modern Mandarin employs three different grammatical forms (the coordinator *danshi*, the stative aspect *zhe*, and the pre-verbal adverbial *de*) to express what the earlier language expressed with the marker *er*.

4. CONCLUDING REMARKS

Many grammatical constructions besides those discussed above exhibit increase in formal markings. Just given the examples above, however, it is clear that in the course of history the language has increased in complexity of overt grammatical codification. In as much as the newer grammatical markers (passive agentive *bei*, disposal recipient *ba*, adverbial complementizer *de*, perfective aspect *le*, and stative aspect *zhe*, shown above) were originally full verbs in earlier Chinese, one could very well summarize this study in one statement: it is a history of grammaticalization. The grammaticalization that took place in the formation of the grammatical morphemes may appear to be an attrition process, in the sense of reduction of lexical characteristics, and, as reduction, each may seem to be yet another conformation to the principle of economy at work in language change. However, the intention of this study has been to go beyond the attrition aspect of grammaticalization with regard to particular morphemes.

From the perspective of what all these individual cases have effected collectively in the language, the other side of grammaticalization, i.e. the accretion side, becomes obvious. It is this collective effect on the grammatical system as a whole that gives significance to the historical change -- this collective effect says something about the characteristics of the resultant language in terms of its particular grammatical system. Grammaticalization in the sense of semantic attrition happens to all languages. But it is what is added to the grammatical system that modifies or changes the characteristics/tenor of a particular language. Indeed, as Meillet (1926) stated "Language changes get their meaning only if one considers the whole of the development of which they are parts." (cited in Weinreich *et al.*, 1968:140)

The resultant accretion aspect of the historical change is particularly conspicuous in the case of Chinese, overshadowing whatever attention the attrition aspect may attract in connection to grammaticalization. This phenomenon has to do with the typology of the language (the author is grateful to Elizabeth Traugott for her suggestion concerning the relevance of typology in this study when this paper was presented at the CIL conference.) Given that Archaic Chinese words were basically monosyllabic, the direction of change is understandably toward annexation and piling up of morphemes, rather than toward reduction of the already simple morpheme. This does not mean that the monosyllabic morpheme is impervious to reduction in this language. In fact, syllables in Modern Mandarin have lost all their ancient obstruent stops -*p, -t, -k* and bilabial nasal -*m* in the syllable-final position (Dong 1980). However, the phonetic reduction took place as the language was also gaining morphemes in various degrees of bondedness. Here, we are reminded of what Martinet (1961) said about the interplay of two ever-present and antinomic factors of language change: first the requirements of communication, the need for the speaker to convey his message, and second, the principle of

least effort. In view of the history of Chinese, as we have shown above, the net result is that of addition, in regard to both word structure and the grammatical system. The history of Chinese shows that the speaker's expressivity is one step, if not many steps, ahead in this race between expressivity and economy.

In view of the historical data of accretion demonstrated in this study one can conclude that in language, as in other human intentional endeavors where creative expressivity is as desirable as conserving energy, the better, the shorter, the easier forms do not always gain the upper hand.

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