

**A study of the distinction between
grammaticalization and
constructionalization:
The Chinese comparative correlative
construction**

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Overview

- ◆ Grammaticalization
- ◆ Construction Grammar
- ◆ Constructionalization
- ◆ The case study on the Chinese comparative construction (CrC)
 - i) The grammaticalization of the CrC
 - ii) A constructional approach to CrC
- ◆ Conclusion

Grammaticalization

- ◆ **How do grammatical items arise?**
- ◆ Definitions of grammaticalization vary (Lehmann 1982, Heine et al 1991, Bybee et al 1994, Hopper and Traugott 1993, etc)
- ◆ Common characteristics in practice are:
 - a) A tendency to focus **either on form change or on meaning/function change.**

- b) The domain of research is the development of **morphosyntax**.
- c) Attention to and theorizing of **unidirectional** shifts from less to more grammatical status.
- d) A tendency to **reject analogy** as a major mechanism in the process of grammaticalization.

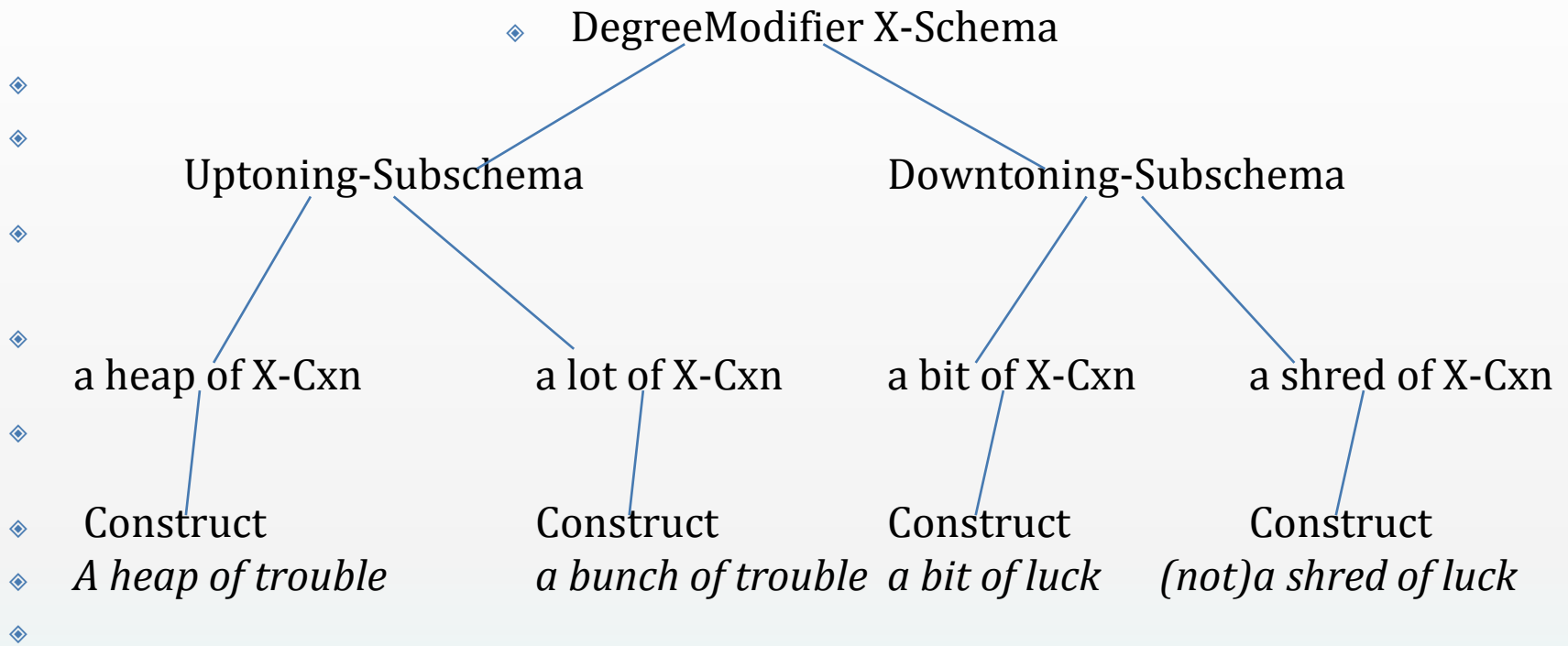
Three recent developments that have helped pave the way for a shift to thinking that is typical of constructionalization:

- a) The realization that grammaticalization results in “**extension** use in new contexts”.
- b) **Analogy is a basic mechanism** in morphosyntactic change.
- c) The **development of pragmatic markers** may be a case of grammaticalization.

Construction grammar

- ◆ Construction grammar had its origins in the work of Charles Fillmore and his colleagues at the University of California, Berkeley in the 1980s.
 - a) The basic unit of language knowledge is a **construction: a form-meaning pairing** (“sign”).
 - b) Constructions are made up of **many properties**.

- c) A construction may be of **any size** from affix to complex sentence.
- d) A construction may be **specific or schematic**.
- e) Construction types can be **combined** (“unified”) if they are compatible.
- f) Constructions form **networks** in mental space.



◆ **Figure 1.** Simplified taxonomic hierarchy of the English Degree Modifier Construction

◆

Constructionalization

- ◆ **How do constructions arise?**
- ◆ Constructionalization is defined as:
the creation of form_{new}-meaning_{new} (combinations of) **signs**. It forms **new type nodes**, which have new syntax or morphology and new coded meaning, in the linguistic network of a population of speakers. It is accompanied by changes in degree of **schematicity, productivity, and compositionality**. (Traugott and Trousdale 2013:22)

- ◆ Work on constructionalization **overlaps with** that on grammaticalization in several respects. Most particularly:
 - a) Attention is paid to **context**.
 - b) **Frequency** is considered to be a crucial factor in change (e.g. Bybee 2003, Hilpert 2013).
 - c) Some of **the data** under consideration may be the same, especially in early work because of the history of research.

Work on constructionalization **differs** considerably from work on grammaticalization:

- a) Since constructions are form-meaning pairings, attention is paid to **both form and meaning equally**.
- b) The domain of research is knowledge of **all aspects of language**.

c) To the extent that **directionality** is discussed, the focus is not on **reduction**, but on **expansion** of host-classes (Hilpert 2008) and **diffusion** (De Smet 2013).

Increase in three properties is often discussed as well (Traugott and Trousdale 2013):

i) Schematicity, or abstractness,

ii) Productivity, sanctions other constructions (Barðdal 2008),

iii) Opacity, the extent to which the link between form and meaning is transparent or compositional.

- e) Since construction grammar is concerned with pattern, **exemplar analogy** is embraced, e.g. De Smet (2013), Busse and Möhlig-Falke (Forthc).
- f) The rise of **schemas** and changes in them.
- g) The importance of **networks** and changes in them.
- h) The possibility of **multiple sources** (Van de Velde et al. 2013)

Constructionalization and Constructional changes

Prior to constructionalization there are typically several small-scale, gradual changes that are necessary but not sufficient for reanalysis to occur. Traugott and Trousdale (2013) call them pre-Cxn CCs.

Language change process (2013):

Pre-Cxn CC → Cxn → Post-Cxn CC

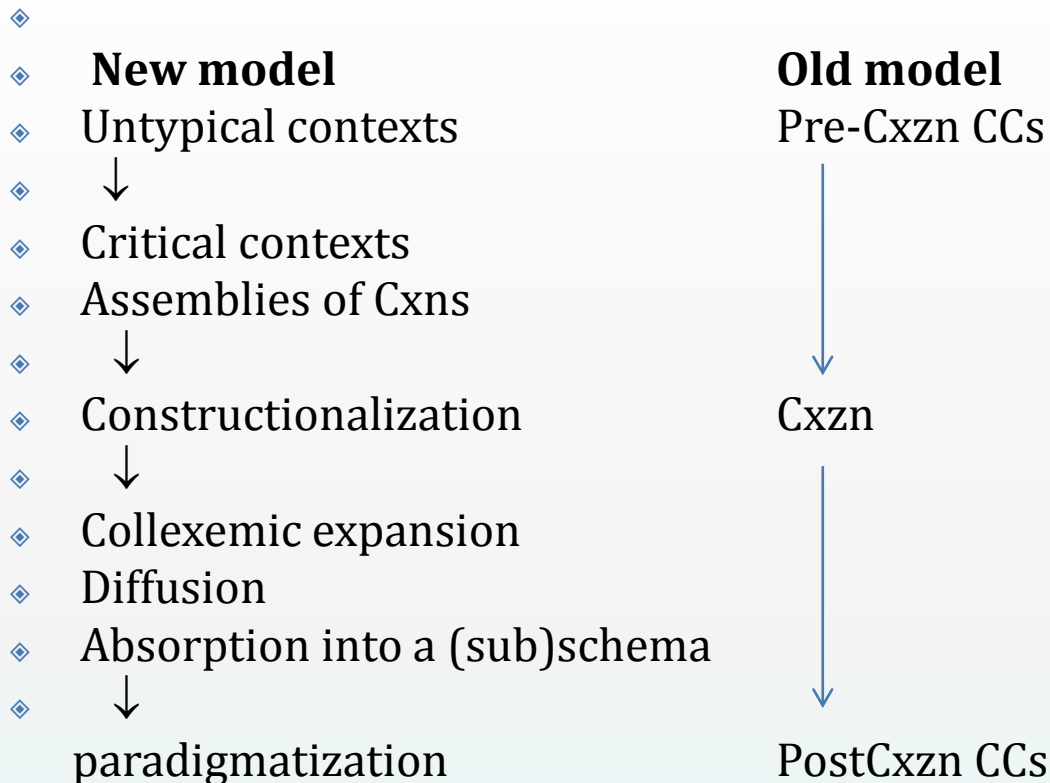
Diewald and Smirnova (2010) posit several **stages of grammaticalization** that they show are equally valid for **constructionalization** (Traugott Forthc):

Stage I is an “untypical context”

Stage II is “critical context”

Stage III is “isolating context”

Stage IV is “paradigmatization”



◆ **Figure 3.** The relationship of constructional changes to procedural and schema constructionalization (see Traugott and Trousdale 2013:28 for the old model)

The Chinese comparative correlative construction (CrC)

In Modern Chinese **the comparative construction** has three types:

- ① Plain comparative
- ② Comparative correlative construction (CrC)
- ③ Incremental comparative construction (IcC)

(1) 小李比小明更帥

Xiaoli bi Xiaoming geng shuai

Xiaoli than Xiaoming more handsome

Xiaoli is more handsome than Xiaoming.

Plain comparative: [geng X*more SEM]

(2) 小明[越吃][越胖]

Xiaoming yue chi yue pang

Xiaoming more eat more fat

The more Xiaoming eats, the fatter he gets.

CrC:

[yue X_{VP1} yue Y_{VP/Adj2} *the more SEM₁, the more SEM₂]

(3) 现在的网速越来越快

Xianzai de wangsù

Nowadays ASSOC internet speed

yuelaiyue kua

more and more fast

Nowadays the internet speed is faster and faster.

There is no comparative correlation in (3), but incremental comparative.

Incremental comparative construction (IcC):

[yuelaiyue Adj*more and more SEM]

Previous studies on the development of the Chinese CrC include Zhu (2010), Zhang (2010), **Long (2013)** and many others.

These studies have much in common in that they adopt the framework of **grammaticalization** and hypothesize similar trajectories of change.

The development of the Chinese CrC

In Archaic Chinese, **yue** is a verb meaning ‘to cross, to surpass’:

(4) 外臣之言不越境，不敢及君

wai chen	zhi	yan	bu	yue
foreign official	ASSOC	words	not	cross
Jing	bu	gan ji	jun	
border,	not	dare reach	lord	

The words of the foreign official don't cross the border, and don't dare to reach the lord.

Guoyu, Luyu (c.400 BCE)

(5) 政既成，乡不越长，朝不越爵

Zheng ji cheng, xiang bu
Politics already establish, village not
yue zhang, chao bu yue jue
surpass elder, court not surpass lord

The politics has been established; at village
(one) should not surpass the elder, at court
should not surpass the lord.

Guoyu, Qiyu (c.400 BCE)

(6) 高壁抵嶽峯，洪濤越凌亂

Gaobi di qinyin,

high mountain arrive precipitous,

hongtao yue lingluan

big waves cross chaotic

(We) have arrived at the precipitous high
mountain, and have crossed the chaotic big
waves.

Du Fu (712-770) *Baishadu* [Long 2013: 26]

- ◆ Long (2013) suggests that *yue* in (6) is a verb followed by a degree adjective *lingluan* ‘chaotic’.
- ◆ Long suggests that in (6) *yue*, although still a verb, appears in a context **enabling change into a degree adverb** modifying the following adjective.

We suggest (6) is an “untypical context” (poetic inversion) for *yue*, but does not yet enable it to change into a comparative adverb.

(7) 安之使五伯执大杖引前，谭则益粗其杖，
Anzhi shi wubo zhi da zhang yin qian,
Anzhi ask Wubo take big stick leading head,
tan ze yi cu qi zhang
Tan then more thick his stick,

安之越粗谭亦转粗之。

Anzhi yue cu tan yi zhuan cu zhi
Anzhi more thick Tan again more thick it
Anzhi asked Wubo to take a big stick standing ahead; Tan
then made his own stick thicker; Anzhi made the stick
thicker, and Tan again made his thicker.

Feng Yan *Fengshi wenjian ji* (c.800) [Long (2013:26)]

- ◆ Because in (7), *yue* appears in the context of a comparative relation, and is parallel to the other two comparative adverbs *yi* and *zhuan*, Long (2013) suggests that **it is already a comparative**.
- ◆ We suggest *yue cu qizhang* is ambiguous: *yue* could be understood as retaining its verbal status and the phrase could mean ‘to overtake and make his stick thick’, or, it could be interpreted as a comparative adverb meaning ‘more’ on analogy with *yi* and *zhuan*.
- ◆ (7) is a “critical context” for *yue* to change into a comparative adverb.

(8) 起来没个人睬采，枕上越思量

qilai mei ge ren choucai,

get up not CL people care,

zhen shang yue siliang

pillow on more think

(I) get up and nobody cares (about me), back on the pillow (I) think more.

Zhang Ci (1153-1221) *Yaner Mei* [Long (2013:27); Zhang (2010:70)]

(9) 归思越凄凄

guisi yue qiqi

thought of going home more miserable

The thought of going home became more miserable.

Chen Yunping *Wang jiangnan* (c.1221) [Long (2013:27)]

- ◆ Long (2013:27) proposes that the examples (8) and (9) are “**the most direct syntactic context**” in which what we call the CrC came into being.
- ◆ The first clause is the condition (the independent variable), and the second is the result (the dependent variable) determined by the condition in the first clause.
- ◆ We suggest (8) and (9) are semantically ambiguous and they are “critical contexts” for the CrC to occur.

(10) 若只看“仁”字，越看越不出

ruo zhi kan ren zi,
if only look at benevolence character,
yue kan yue bu chu
more look more not get out

If (you) only look at the character of “benevolence”, the more (you) look the less (you) get out of it.

Zhuziyulei (1270) [Long (2013:27); Zhu (2010:69); Zhang (2010:70)]

(11) 越说得圣人低越有意思

yue shuo de shengren di
more say CSC saint low
yue youyisi
more interesting

The more (you) say low about the saints, the more interesting it is.

Zhuziyulei (1270) [Zhu (2010:69)]

Replicated use in critical contexts such as (8-9) may have led to use in “isolating contexts” (Stage III), as exemplified by (10-11).

Long (2013) suggests at the early stage, the CrC referred mainly to action. As the construction developed, it came to indicate more about time. This is “paradigmatization” (Stage IV)

(12) 恰似断魂江上柳，越春深越瘦

Qia	si	Duanhun jiang shang	liu,
just like		Duanhun River at	willow,
Yue	chun	shen	yue shou
more	spring	deep	more skinny

Just like the willows at Duanhun River, the more the spring advances the more skinny they are.

Wang Yisun *Ye jinmen* (c.1290) [Long (2013:27)]

(13) 掌柜的果然把李三德找来，酒饭座越来越多，都冲着李三德
和气

Zhangguide guoran ba Li Sande zhao lai,
boss as expected BA Li Sande find come,

jiufanzuo yue lai yue duo

a) feast (people) more come more many

b) feasts (are) more-and-more many

dou chongzhe Li Sande heqi

all direct at Li Sande kindness

The boss as expected found Li Sande (and hired him);

a) **the more people came to eat at the restaurant, the more feasts there were.**

b) there were **more and more feasts.**

People all came for his kindness.

Guo Xiaoting *Jigong Quanzhuan* (c.1850) [Long (2013:27); Zhu (2010:70)]

(14) 你给我来一壶酒，要有两层皮的有馅的来
一个

Ni gei wo lai yi hu jiu,

you for me come one CL wine,

yao you liang ceng pi de

if have two layers skin NOM

you xian de lai yi ge

have fillings NOM come one CL

You give me one bottle of wine; if you have two
layers skin with fillings dumplings, give me one.

Guo Xiaoting *Jigong Quanzhuan* (c.1850)

Long (2013) argues that *lai* 'to come' was used as a **pro-verb** as in (14) before it occurred in what we call the Incremental comparative construction (IcC).

In his view, assuming that **examples with the CrC are the source of the IcC.**

We propose that (13) is an example of a critical context for the rise of the IcC.

i) 他一看賊人越來越多

Ta	yi	kan	zeiren	yue	lai	yue	duo
a) He	just	see	robbers	more	come	more	many
b) He	just	see	robbers	more-and-more			many

a) 'He just saw **the more robbers came, the more they were**'.

b) 'He just saw **more and more robbers**'.

Tanmeng Daoren *Penggong An* (c.1891)

ii) 那號鼓聲越來越近, 直向狄營沖來

Na	haogu	sheng	yue	lai	yue	jin,
a) that	drum	sound	more	come	more	close,
b) that	drum	sound	more-and-more			close,
zhi	xiang		diying		chong	lai
straight	towards		Di barracks		rush	come

a) **The more that sound of drum came, the closer it was** and it rushed straight toward the Di barracks.

b) **The sound of drum was closer and closer** and it rushed straight towards the Di barracks.

Keng Yusheng *Xu Jigong Zhuan* (c.1895)

(15) 若不依我那药方行，他的病是越来越重

Ruo bu yi wo na yaofang xing
If not follow my that prescription do
ta de bing shi yue lai yue
he ASSOC disease COP more-and-more
zhong
severe

If he doesn't follow my prescription, his disease will
become more and more severe.

Guo Xiaoting *Jigong Quanzhuan* (c.1850) [Long
(2013:27)]

We hypothesize that the incremental construction [yuelaiyue Adj*more and more SEM] emerged in the 19th century, as in (15), which is unambiguous. We also hypothesize that *lai* is still a motion verb in (13), not a pro-verb, as Long suggests.

(16) 随着宾客往来的增加，她的身价也越来越高

Suizhe bingke wanglai de

With guests contact ASSOC

zengjia, tade shenjia ye yue lai yue gao

increase, her price too more-and-more high

With the increase of the guests' contact, her price becomes higher and higher too.

Liu Yuying and Mei Jingzhong *Gujin Qinghai*
(1928) Book 9

The grammaticalization of the Chinese CrC

According to Long (2013), the development of the comparative construction underwent grammaticalization three times:

Gzn I: around 800, the verb *yue* was emptied into an adverb, e.g. example (7)

Gzn II: around 1270, the CrC was grammaticalized, e.g. examples (10), (11)

Gzn III: around 1850, the CrC was further grammaticalized and the IcC developed, e.g. examples (13), (15).

Note this is a statement about form.

- ◆ This analysis focuses on the development of *yue*, **a verb, into an adverb**, illustrating a typical example of grammaticalization.
- ◆ It exemplifies the development of **a contentful lexical item that belongs to a major category into a member of a minor category** and also **reduction**: what Long calls [clause, yue...] in (8) and (9) > [yue... yue...] in (10) and (11) > [yuelaiyue...] in (16). These illustrate the hypothesis of **formal unidirectionality**.
- ◆ Because no distinction is made between CrCs and the IcC except with respect to form, the development is treated as **one continuous trajectory**.

As our discussion of the distinction between CrC and the IcC suggests, we hypothesize two separate, but related, trajectories.

A constructional approach to the Chinese CrC and IcC

Five patterns identified in the development of CrC and IcC:

1. [yue X_{NP} (location/person/object)*to cross/to surpass SEM], c.400BCE.
2. [yue $X_{V/Adj}$ *more SEM], c.1200.
3. [yue X_{VP1} yue $Y_{VP/Adj2}$ *the more SEM₁, the more SEM₂], c.1270.
4. [yuelaiyue Adj*more and more SEM], c.1850.
5. [suizhe X, yuelaiyue Adj *along with X, more and more SEM], c.1920.

Before the CrC was constructionalized, a complex correlative schema construction had already developed:

(17) 若将亡之，则亦皆亡

Ruo	jiang	wang	zhi,	ze	yi
If general	die	PTCL,	then	also	
jie	wang				
all	die				

If the general dies, then we all die.

Zuozhuan (400 BCE)

(18) 雖好水草長養其膚，但促其命無益於己

Sui	hao	shuicao	chang
Although	good	watergrass	long
yang	qi	fu,	
nourish	his	skin	
dan	cu	qi	ming wu yi
but	improve	his	life not benefit
yu	ji		
to	self		

Although the good watergrass long nourished his skin,
to improve his life it did not benefit him.

Chuzhai Jing (c.400 CE)

When the CrC emerged, it came to be linked to **the complex correlative network** because it has correlative structure.

However, the IcC [yuelaiyue + Adj] is **not correlative** even though it partially shares form and meaning with the CrC, and therefore it could not be recruited into the correlative network.

Before IcC was constructionalized, in Archaic and Medieval Chinese there were **three ways** to express the incremental comparative (IC):

- a) Plain comparative adverb, e.g. *yi, yu, jia* + Adj
- b) another adverb *jian* ‘gradually’ +Adj
- c) a temporal noun +comparative adverb, *ri+yi+Adj*

(19) 以益愈強之秦，而割愈弱之趙

yi	yi	yu	qiang	zhi	qin,
use	benefit	more (and more)	strong	ASSOC	Qin,
er ge		yu	ruo	zhi	zhao
and damage		more (and more)	weak	ASSOC	zhao

Use it to benefit more (and more) strong Qin (the state of Qin), and to damage more (and more) weak Zhao (the state of Zhao)

Zhanguo (77-6BCE)

(19) appears to be **ambiguous**, and the comparative *yu* can be understood as the simple comparative ‘more’ as well as incremental ‘more and more’.

During the 19th century comparatives such as *yu*, *yi* were recessive, and were finally replaced by *geng* ‘more’.

It appears that *yuelaiyue* was selected in place of the recessive simple comparatives to indicate the incremental comparative.

Accordingly, we argue that the IcC has **multiple sources** and is not directly derived from the CrC as Long (2013) argues. Drawing on Van de Velde's et al.'s (2013) idea of multiple sources, we can envision at least double input into the IcC.

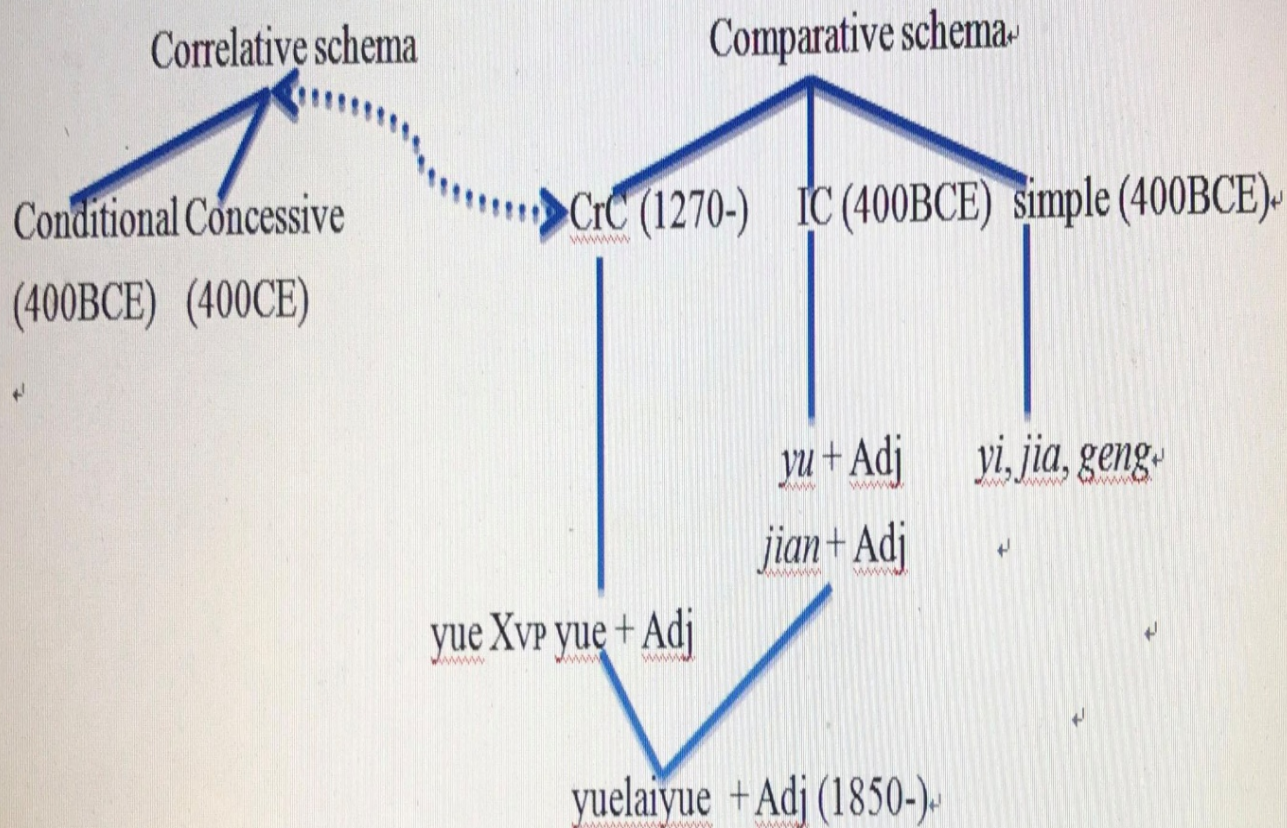


Figure 5. The two sources of the incremental yuelaiyue + Adj construction in the mid 19thC.

Based on the discussion above, **the development of the CrC subschema and of the IcC can be analyzed from a constructionalist view as involving the following main steps:**

- a) Development of **the comparative adverb from a transitive verb**, a shift from pattern 1. > 2. This is equivalent to Long's Gzn I.
- b) Syntactic expansion: the development of a **complex CrC that combines two comparative subconstructions**: pattern 3. This is equivalent to Long's Gzn II.
- c) The rise of a new construction, [yuelaiyue Adj *more and more SEM]: pattern 4. This is equivalent to Long's Gzn III. However, we do not consider it to be directly derived by reduction from the CrC. Rather, we consider **its form to be derived from a subset of the CrC subschema**, while **its meaning is derived from the IC subschema**, both members of the higher level Comparative schema.
- d) Host-class expansion: the IcC came to be combined and entrenched with **the temporal *suizhe* construction**: pattern 5.

[yue X_{NP(location/person/object)} ★ to cross/to surpass SEM] (exs. 4, 5)

↓

untypical contexts, e.g. use in inversion in poetry (ex. 6)

↓

critical contexts, e.g. ambiguous (ex. 7)

↓

[yue X_{V/Adj} ★ more SEM] (exs. 8, 9)

↓

critical contexts, e.g. ambiguous use in complex structure (exs. 8, 9)

↓

[yue X_{VP₁} yue Y_{VP/Adj₂} ★ the more SEM₁, the more SEM₂], CrC (exs. 10, 11)

↓

critical context, use with the verb lai 'come', possibly ex. (13)

Picking up the incremental meaning from [comparative+adj] (ex. 19)

↓

[yue lai yue Adj ★ more and more SEM], IcC (ex. 15)

↓

host-class expansion to temporal Cxns, (ex. 16), especially zuizhe Cxns

Cxzn

Cxzn

Cxzn

Figure 6. The constructionalization of the CrC and IcC

Conclusion

The constructionalization framework outlined here provides the researcher with a framework in which to focus on:

- ◆ the development of **form and meaning equally**,
- ◆ the processes by which meaning_{new}-form_{new} developments occur, **distinguishing processes prior to and post constructionalization**,

- ◆ research on constructionalization focuses on **the development of signs**. By contrast, research on grammaticalization focuses on **either meaning or form**,
- ◆ most importantly, each strand of research **asks different questions**, so even though there is overlap, the perspectives and some data are different.

Thank you!