Measuring the scalar property of predicates: the intensifier *xã13* in Zauzou

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1. Introduction

Zauzou is an endangered Lolo-Burmese language spoken by approximately 2100 members of the Nu nationality, mostly living on the banks of Lancang River, Lanping Country, Nujiang Prefecture, Yunnan Province in mainland of China (Sun et al, 2002). This paper describes the semantic functions of the degree adverb *xã13* 'very' in various types of *V/Adj-xã13* constructions and the derivation of different semantic types of this construction in Zauzou within the framework of degree semantics (Hay et al 1999, Kennedy &McNally 2005, Kennedy &Levin 2008, Rappaport 2008, among others). The description is based on a documentation project of Zauzou. Most of the data in this paper are collected from the Jiangmo Dialect of Zauzou in Lanping County.

2. The semantics of *very*

Scalarity/gradability plays a significant role in both verbal and adjectival domains. It is considered as a property not just of adjectives, but of nouns, verbs, adverbs, and prepositions as well (Sapir 1944, Bolinger 1972, Kennedy & McNally 2005, among others). The study of degree word is closely associated with the exploration of the scalar semantics of gradable adjectives.

According to Klein (1980) and Kennedy & McNally (2005)'s analysis on the English degree word *very*, the central function of a degree word is **raising the standard of comparison**. Compare the bare ADJ and very-ADJ in English:

(1) *tall*: the height exceeds the average height of basketball players (comparison class: basketball players)

very tall: the height exceeds the average height of just tall basketball players

(comparison class: tall basketball players)

Such an analysis only applies to gradable adjectives (e.g. big, happy), while non-gradable adjectives, such as *available* and *empty*, usually reject the modification by *very* (e.g. **very available*), or require extra explanation (e.g. *very empty*).

In Zauzou, the degree adverb *xã13* not only applies to gradable adjectives, but also applies to gradable verbs, and even non-gradable verbs (i.e. dynamic verbs) as well.

3. Semantic types of *xã13* in *V/Adj-xã13* constructions

There are 6 common semantic types of *xã13* in different *V/Adj-xã13* constructions.

3.1 Prototypical function: raising the standard of comparison

xã13 typically raises the standard of comparison if the predicate is a gradable adjective or verb (state verb and modal verb). Predicates of this type can appear in comparison.

- *Adj-xã13*:

    (2) tɯ33   ta55kẽ55 **ma33**   **xã13**   zo31

       3sg   only   **old**   **very**   PERF

       "Only he is very old."

- *V-xã13*:
    o State verb:

    (3) **nõ55**   **xã13**   to53   ia33   tɕõ55 kʰə55 a31   ŋæ53

       Sick   very   RES.completive SUB.because   soul   call   NEG   assertive

       "To call back one's soul is not because that he is very sick"

    o Model verb:

    (4) ta31pɛ̃33   **tʰo53**   **xã13** zo31

       dress up   **be capable of**   **very** PERF

       "very good at dressing up"

3.2 denoting the maximal value on an upper closed scale

When modifying degree achievement verbs (DAs) which involve an upper closed scale (Kennedy & McNally 2005), *xã13* usually denotes the maximal value on this closed property scale, which is glossed as 'completely'.

(5) ã31   və13   **tɕʰɔ31**   **xã13**   zɔ31

   Dish DET cool/become cool   very/completely   PERF

   "this dish is very cold/this dish is cooled completely"

(6) ɕyi13li33 læ31 **me13**   **xã13**   zɔ31

     pear   CL   ripe/ripen   very/completely PERF

   "this pear is very ripe/this pear is ripen completely"

The function of denoting maximal degree of change is not conflict with the function of standard-raising, as reflected by the ambiguity in (5)-(6). For DAs with an open scale, e.g. warm, lengthen, the maximal degree reading of 'completely' is ruled out:

(7) ã31   və13   **tsʰə33 xã13** zɔ31

   Dish   DET   warm very PERF

   "the dish is very hot/? The dish has warmed a lot/* the dish is completely warmed up"

3.3 denoting a long time duration

Verb plus *xã13* may denote that the run time of the event described by the verbs is very long:

(8) tɥ33 **ŋæ33 xã13**   zɔ31

   3sg   see   very PERF

   "he has been watching for a long time"

3.4 denoting incremental volume/extent of argument

When the verb is an incremental theme verb (Hay et al 1999, Kennedy &Levin 2008, Rappaport 2008, Kennedy 2012) or a directed motion verb in *V-xã13*, *xã13* is preferably interpreted as denoting the incremental volume/extent of the argument of the verb, which can be the actor/undergoer of the verb or the path in a motion event. However, in many cases, the 'long duration' interpretation for *xã13* is also acceptable, as can be seen in (9)-(10):

(9) Directed motion verbs:

a. tɥ33 **ta33** **xã13** zɔ31

   3sg **run** **very** PERF

"He has run for a long distance/for a long time"

b. ŋu33 **la13** **xã13** zɔ31

   1sg ascend very PERF

"I am very tired to climb up/?it took me a long time to climp up/? I climbed up a long distance"

(10) incremental theme verbs:

a. i33tsʰã31 ka33 liã33kʰuɛ33 kẽ33 tsʰo31

   one round LOC two dollars only take money

   u13 ɛ31 **u13** **xã13** to53 zo31pe33

RES.successful also **win** **very** RES.completive SPF.assertive

"He can win as much as two dollars/for a long time in one game"

b. tɥ33 **tsu33** **xã13** zɔ31

   3sg eat very PERF

"he ate a lot/? has been eating for a long time"

The allowance for both temporal and incremental theme interpretations instantiates the homomorphism between event and part as described in Krifka (1998). Whereas the asymmetrical distribution of the temporal reading and the incremental theme reading suggests that the measure function of *xã13* is associated with the incremental theme argument, rather than the incremental theme verb (Rappaport 2008, Kennedy &Levin 2008, Kennedy 2012).

3.5 denoting incremental force

It is also very common for the degree adverb *xã13* to modify certain types of non-scalar verbs and increases the extent of force involved in the action. Two kinds of verbs are subsumed to this type: *verbs of exerting force* and *weather verbs* (Levin 1993).

(11) verbs of exerting force:

tɯ33 **pɛ̃53** **xã13** zɔ31

3sg **push** **very** PERF

"He pushed someone down to the ground"

(12) weather verbs:

tə31 tɕʰã13 tɕʰã13 nɛ55 mɔ̃33 **læ55** **xã13** nɛ55

one time time TOP sky **shine** **very** DECL

"Sometimes the sun is very strong"

The incremental extent of force exerted on the object is normally associated with a resulting event that is caused by the incremented force involved in the action denoted by the verb. When *xã13* is applied to weather verbs, it typically increases the extent of natural force.

3.6 denoting incremental frequency

The last function of the degree adverb *xã13* in Zauzou is indicating the relatively high frequency of the entire event when it modifies achievement verbs.

(13) tɯ33 **tʰɯ53** **i55** **xã13** zɔ31

3sg exit DIR very PERF

"He exits (the room) a lot of times"

Verbs that are associated with the incremental frequency reading all have the features of [+punctual] and [+telic], which are most typically exemplified by directed motion verbs that entail a two-point path scale (e.g. *enter, exit, leave, reach*, etc).

4. A scalar analysis of Zauzou *V/Adj-xã13* constructions

One goal of this article is to demonstrate that the meaning of *V/Adj-xã13* construction is largely predictable from the scalar properties of the predicate. Different classes of scales thus play a significant role in accounting for the semantic variations found in the *V/Adj-xã13* constructions.

9 types of gradable predicates (gradable adjectives, state verbs, modal verbs, degree achievement verbs (DAs), directed motion verbs, incremental theme verbs, verbs of exerting force, weather verbs, and achievement verbs) are associated with 5 types of scales:

1) Property scale (Rappaport 2008:17)

The predicate can occur in comparatives; predicates lexically specify a scale

e.g. a warming event necessarily involves an increase in the value of [warm]

2) Volume/extent scale

Kennedy (2012): Incremental creation, incremental consumption, incremental affect

3) Time scale

Verbs with the feature of [+Durative]

4) Force scale

5) Frequency scale

The above five scales are associated with the 6 distinct semantic classes of intensifier phrases involving *xã13* as described above. The predictive model arriving at the 6 semantic classes of *V/Adj-xã13* constructions from the above five scales are presented in Table 1:

Table 1: Scalar features and the functions of *xã13* in different classes of predicates in *V/Adj-xã13* constructions

Scalar feature	[+property scale]		[-property scale]			
	[-time scale]	[+time scale]	[-time scale]	[+time scale]		
			[+frequency scale]	[+volume/extent scale]	[-volume/extent scale]	
					[+force scale]	[-force scale]
Verb classes	Gradable adjectives	Degree achievement verbs (closed scale)	Achievement verbs	Incremental theme verbs	Verbs of exerting force	Perception verbs (*ŋæ33* 'see')
	State verbs			Directed motion verbs	Weather verbs	
	Modal verbs					
Function of *xã13*	raising the standard of comparison	denoting the maximal value on an upper closed scale	denoting the relatively high frequency of the event	denoting incremented volume/extent on argument	denoting incremented force	Denoting long time duration

References:

Beth, Levin .1993. *English verb classes and alternations: A preliminary investigation.* Chicago: University of Chicago Press.

Bolinger, Dwight .1972. *Degree words*. The Hague: Mouton.

Hay, Jennifer; Christopher Kennedy; and Beth Levin. 1999. Scalar structure underlies telicity in "degree achievements". In *Semantics and Linguistics Theory IX*, eds. By Tanya Mathews and Devon Strolovitch, 127-144. Ithaca: CLC Publications.

Kennedy, Christopher. 2012. The composition of incremental change. In *Telicity, Change, State: A Cross-Categorical View of Event Structure*, eds. By Demonte, V. and L.McNally, 103-121. Oxford: Oxford University Press.

Kennedy, Christopher and McNally Louise .2005. Scale structure, degree modification, and the semantics of gradable predicates. *Language 21(2):* 345-381.

Kennedy, Christopher and Beth Levin. 2008. Measure of Change: the Adjectival Core of Degree Achievements. In *Adjectives and Adverbs: Syntax, Semantics and Discourse*, eds. By L. McNally and C. Kennedy, 156-182. Oxford, UK: Oxford University Press.

Klein, Ewan .1980. A semantics for positive and comparative adjectives. *Linguistics and Philosophy 4*. 1-45.

Krifka, Manfred .1998. The origins of telicity. Events and Grammar. *Studies in Linguistics and Philosophy*, eds. By Rothstein S. vol 70, Dordrecht: Springer.

Rappaport, Hovav, Malka. 2008. Lexicalized meaning and the internal structure of events. In *Theoretical and Crosslinguistic Approaches to the Semantics of Aspect*, ed. By Susan Rothstein, 13-42. Amsterdam: John Benjamins.

Sapir, Edward .1944. Grading: A study in semantics. *Philosophy of Science 11*. 93-116.

Sun Hongkai, Chenglong Huang, Maocao Zhou. 2002. Nuzu Rouruoyu Yanjiu <A study of Rouruo>. Beijing: Central Nationalities University Press.

Vendler, Zeno .1957. Verbs and times. *The Philosophy Reivew 66 (2):* 143-160.