Variability and stability in Squliq syntax

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Outline

- Language as a complex adaptive system (CAS)
- Variation and gradience
- First-,second- and third-order variation
- Primacy of tense over aspect in the voice affixation system
- Constructional **gradience:** NMZ and verbal c lauses in FL
- Interclausal anaphoric linkage
- Emergence of a 'passive' format
- conclusion

Language as a complex adaptive system

- Language as a complex adaptive system can be shown to observe the following features:

  (a) it is a system consisting of multiple agents (the speakers in the speech community) interacting with one another, hence it is not easily amenable to traditional reductionist cause-effect scientific mode;

  (b) it shows intrinsic diversity and thus **first-order variation, since each idiolect is the product of the individual's unique exposure and experiences of language use;**

  (c) it shows an **emergent** order—patterns at the global level cannot be attributed to global coordination among agents; rather the global pattern is emergent, resulting from long- term local interactions btn individuals(Beckner et al. 2009).

CAS: other features

- In a CAS variation and gradience are central because they are so widespread in grammars.

- Emergent phenomena in CAS have different degrees of variability around stabilized forms (attractors), and degrees of variability is an important measure of system stability.

- Interplay btn variability and stability provides useful info about change in the system.

Types of variation

- There are three ways variation manifested in language (Croft 2006:98):

  --first-order variation: individual variation in occasions of language use [field linguistics];

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  --second-order variation: refers to variation in socially valued variants [sociolinguistics];

  -- third-order variation across dialects and   languages [linguistic typology]

First-order variation:
the syntax of *trang* 'just as, while'

narrator	verbalization
p3	trang ka+ nyux+M-V (4)
p3	trang +M-V (1)
p9	trang nasa +nyux+M-V (1)
p9	nuyx trang M-V (1)
F1	trang squ' (1)
F1	trang nqu' +(nyux)M-V (5)
F3	ptrang+M-V (1)

First-order variation:
Bumping into a rock in Tsou Pear narratives

P1   micu smoftongU to fatu ho smopcuku   AV
      AV Asp bump   **Obl** rock Conj fall

P2   mo smotokU to fatu 'o jidensa   AV
      Av bump   **Obl** rock Nom bike

P3   micu smoftongU **ta** fatu ho oefU'U   AV
      Av Asp bump   **Obl** rock Conj fall

P4   mo asonU smopcuku to fatu 'o jidensya   AV
      Av probable fall   **Obl** rock Nom bike

P5   micu smopcuku ho miuhu 'o nasi ci….   AV

P6 isi cu salUa **'o mo eon to taico to ceonU ci fatu ho** e'pueu   NAV
    NAV Asp bump.**PF** Nom Av.be Obl middle Obl road Lk rock Conj fall

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Third-order variaton:
Emergence of the owl in Frog story: V-languages vs. S-languages

Frog 1 **m-htuw** qutux   quʔ   pu?puk

        av-move.out one Nom   owl

Frog3   **m-htuw** quʔ   ŋuziq   qani,

        av-move.out Nom owl   this

Frog 4   **nyal htuw**   quʔ ŋuyaq, kahu

        Asp move.out Nom owl   come.fro

Frog5 **hnyal   m-htuw**   **kya qutux qu?** ŋuz

        Asp   av-move.out there one Nom owl

V-languages vs. S-languages

- As expected of a V-language, all of the Squli narrators consistently used a single path verb *m-htuw* 'to move.out' to describe the emergence of the owl, and there were not any verbgalizations where a manner verb was used to reference the event.

- By contrast, many S-language are known to use a manner verb together with a path satellite to describe the same motion event:

English: pop out, jump out, come flying out [(D)+M +P]

Another example of third-order variation: Four types of TAM marking

- A. preverbal aux that attract clitics (tense and modality info): grammatically obligatory. Tsou

- B. preverbal aux that attract clitics (aspect and modality, negation and connective): optional. Atayalic; Cebuano and Tagalog (much more richer set of preverb elements)

- C. there is a small set of ‘preverb’ category, but these preverbs are optional, and they do not attract clitics: Saisiayt .

- D. there is no ‘preverb’ category; TAM information is marked on the main verb: Puyuma, Paiwan, Kavalan, etc.

- evolutionary pathway: D>C>B>A

Preverbs in Squliq Atayal

- Preverbal elements are part of the complexes of elements comprised of the main verb and a fairly heterogeneous set of preverbal elements that bear information on aspect, negation, modality, conjunction etc.

  (Preverb=clitic)(modal)MV

  a. Asp=clitic (modal)MV

  b. Neg/interrog=clitic(mod)MV

  c. conjunction=clitic (mod)MV

  d. modal=clitic MV

- There is little semantic commonality among the preverbal elements, suggesting the verb complexes represent a **diachronically mature system**

Squliq voice affixes:Tense system? aspectual system?

- **Question: is the voice affix system more of tense system or an aspect system?**
- Voice affixes on the verb make a three-way distinction:

(a) the 'neutral' M-Verb (ignoring PV, LV and CV forms for now)

(b)<(i)n>Verb   [perfective <(i)n]

(c) P-Verb   [P: prefix for future]

Voice and TAM marking in Squliq

TAM / category	realis		irealis
	Progressive/ imperfective	perfective	future
affix	--	<in>/<n>	P-
reduplication	--	--	first C
preverb	cyux;nyux	wal;wayal	musa'; mosa'
Final particle	--	la; lga	

- voice affixes on the verb:
  - (a) the 'neutral' M-Verb
  - (b)<(i)n>Verb
  - (c) P-Verb
- Note that
  - (a) and (b) forms oppose perfective to non-perfective, an aspectual distinction;
  - (a) and (c) oppose future to non-future, a tense distinction.
  - (b)forms often occur in subordinate clauses in background portion of a discourse

- Note that Aspectual distinctions (imperfective cyux and nyux and perfective wal) are made in the preverb of a verb complex in Squliq:

  (Preverb=clitic)(modal)MV

  a. **Asp**=clitic (modal)MV

  b. Neg/interrog=clitic(mod)MV

  c. conjunction=clitic (mod)MV

  d. modal=clitic MV

Primacy of tense in Squliq

- Preverb grams are rarely used in discourse:
   - In Pear narratives, only 4.4% (12/278)of the main clauses occur with a preverb aspect marker.
   - Although a higher percentage of clauses occur with a preverb aspect marker in frog narratives (19.8% (80/404)) ,
- It is +/- realis or +/- remote future that distinguishes many PV1 vs. LV1 voice forms;
- These results mean that the voice affix system of the language is more of a tense system than an aspect system which is coded in the preverb category.

Use of preverb grams
in Squliq Pear narratives(Main clauses only)

Main cls	P3 (59)	P4 (69)	P7 (48)	P8 (42)	P9 (60)	total
cyux			1			1
nyux				2	3	5
wal	1	2	2	1		6
Subor cls						
cyux				2		2
nyux	7	3	2	5	10	27
wal		2		1	2	5
M<in>-		1		1	7	9

Use of preverb aspectual gram-types in Frog narratives(the first 200 IUs only)

Main cls	F1 (86)	F2 (86)	F3 (85)	F4 (75)	F5 (72)	total
cyux		7	4	5	1	17
nyux	2	3	25	2	1	33
wal	2	4	9	5	11	31
[m<in>]	[1]					1
	4	14	**38**	12	13	
Subor cls						
cyux		2		4		6
nyux	5		3	2		10
wal	4		6	1		11
m<in>-	1			1		2

Numbers within parentheses indicate numbers of main clauses

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Remote future PV1 vs. immediate future LV1

- +/– remote future distinguishes PV1 vs. LV1 of a sizable number of verbs.

1a. 'by-un=mu qu' sakaw qa (**remote future)**
   sleep-**pv**=1s.g nom bed this
   ' I will sleep on the bed.'
 b. 'by-an=mu qu' sakaw qa (**immediate future)**
   sleep-**lv=**1s.g nom bed this
   ' I will sleep on the bed.'
2a. Khang-**un**=mu qu' unga' qa (**remote future)**
   tacke.care-**pv**=1s.g baby this
   ' I will take care of this baby.'
 b. Khang-**an**=mu qu' unga' qa (**immediate future)**
   tacke.care-**lv**=1s.g baby this
   ' I will take care of this baby.'

Another example of third-order variation: Relative Clauses in Squliq (based on Pear narratives)

	P3 +ka -ka	P4 +ka -ka	Pear 6 +ka -ka	Pear 7 +ka -ka	Pear 9 +ka -ka	total
Head-initial	16 4	1 8	1 11	1 3	13 5	67
Head-final					1	1
qu' as 'head' (necessarily head-initial	1	1			2	4
Total + ka	32					
-ka	36					

- Strongly head-initial: Squliq, Saisiyat, Cebuano (Tanangkingsing 2006), Puyuma (based on texts appended to Teng 2007)

- Strongly head-final: Tsou, Amis (Dryer 2005), Bunun (Rik de busser, pc), Pazih(based on texts in Li and Tsuchida 2002);Tao (Vic Rau, pc)

- No clear-cut preference: Kavalan

Variability and stability

- we have examined a number of the scenes of a Pear or Frog narrative verbalized by a number of narrators, and we have shown that there is usually one or at most two favored and stabilized verbalizations for each scene, and there is also always variability around the stabilized forms.
- These favored verbalizations may be thought of as strong **attractors** in the behavior space in terms of complexity theory.
- For example, the stabilized norm for the emergence of the owl scene is the use of path verb characteristic of a V-language, and the stabilized form for RC in Squliq is head-initial, with head-final a variant pattern.

Ideal situation

- The emergence of the owl in Frog narrative and the use of RC suggest that In an ideal situation, a given scene may be verbalized by all 10 speakers, for example, and these verbalizations would yield the following possible distribution of verbalization patterns, ignoring many other possibilities for now:

    (1) 8+1+1 (one attractor and two   minor variant

        patterns)

    (2) 4+4+1+1 (two different attractors and two variant

           patterns)

- Note that a variant pattern may persist for a long time and may develop into an attractor form down the road.

A language without a pivot

- Some languages have an **S/A pivot, some an S/P pivo**t, and some combine the two types of pivot in different areas of grammar (see Van Valin 2005 for further discussions).

- In Squliq, all thematic roles S, A, and P can function either as a controller or a pivot in control constructions, which means that Squliq is a language without a pivot in this area of the grammar.

- I demonstrate below that Squliq (and some other FL we have looked at) also has no pivot of either type in coordinate constructions.

Interclausal coreference

- Interclausal coreference in Squliq follows the accusative (S/A) pattern though the much rarer ergative pattern (S/P) is also attested.

- Anaphoric links across adjacent clauses are counted according to the valency roles in which the co-referential referents occur in the two clauses.

- For example, an instance of the A-to-S link (A=S)means that a nominal appearing in A role reappears as S in the succeeding clause.

Interclausal anaphoric linkage
(based on five Frog narratives)

- Distribution of anaphoric links (Main clauses only are considered; only the first 200 IUs examined):

  S=S   43%

  S=A   20%

  A=S   12.4%

  A=A   22.3%

  S=P   1.8%

- Thus S/A (S=S. A=A,S=A, A=S) anaphoric links are the most common preferred way of forming anaphoric links.

- data on anaphoric links across successive clauses show that S/A links far outnumber S/P links, and thus the topic continuity dimension defines for Squliq a strong preference for nominative/accusative {S, A} alignment.
- However, the presence of **S=P** anaphoric linkage is striking and suggests that PV/LV clauses in some area pf a grammar may be reinterpreted as passives, as shown in the emergence of a 'passive' format below.

Emergence of a 'passive' format

- There were a total of four instances of S=P interclausal linkage produced by three different speakers in the Frog narrative corpus.

- In each case there is first a mention of an intransitive clausse with an nominative-marked nominal, followed in the succeeding IU by a **noun-modifying** clause in which the verb is in PV/LV form, and a genitive (*nqu'*)-marked nominal, but not a genitive clitic (=*nya'*) affixed to the PV.

- Schematically,

  1 [AV + NP$_{nom}$]

  2 [PV/LV (+ agentive NP)]

Emergence of a 'passive' format

- Frog 1

  168 … m-hutaw **qu**' tryung qasa ka,   AV + NP$_{nom}$

        av-fall Nom wasp that Lnk

  169 … z\<n>yuy *nqu*' son maha huzil qasa   [PV/LV (+ agentive NP)]

        \<pfv>shake gen say-pv qp dog that

  'The beehive fell which was shaken earlier by the so-called

      dog.'

- Over time this type of cross-IU format may be compressed into a micro-construction in a single IU hardened into a 'passive', esp if the second IU encodes a presuppostion.

Genitive *nqu'* reanalyzed as oblique

- The emergence of a 'passive format' suggests that PV/LV clauses in some area pf a grammar may be reinterpreted as passives, as seen in the emergence of a passive format.

- Moreover, for a passive format to emerge, the genitive *nqu'* is likely to have been reanalyzed as an oblique case (from marking a core argument to marking a non-core).

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the syntax of *trang* 'just as, while'

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p3	trang +M-V (1)
p9	trang nasa +nyux+M-V (1)
p9	nuyx trang M-V (1)
F1	trang squ' (1)
F1	trang nqu' +(nyux)M-V (5)
F3	ptrang+M-V (1)

LV2 : NMZ and constructional gradience

- Another voice construction that always occur in subordinate clauses is LV2.

- Eight types of NAV voice forms must be distinguished to properly understand the interaction btn voice forms and the interpretation of TAM:

    PV1,PV2,LV1, LV2, CV1 and CV2

- LV2 is formed by the perfective *<in>* and the locative voice suffix *–an* is most readily accessible to nominalization, while CV1 and CV2 are inaccessible to NMZ :

    LV2: <(i)n>-V-an

Interaction btn TAM, voice and morphology in Squliq (Yeh and Huang2009)

Construction	PV2	PV1	LV1	LV2	CV1	CV2
Voice form	$<(i)n>$	$-un$	$-an$	$<(i)n>...-an$	$s-$	$Ca-$
Pattern 1	(AV)	X_{neu}	X_{re}	(ObjNmz)	Y_{Irr}	
Pattern 2	X_{Re}	X_{neu}	Y_{irr}	Y_{re}	Z_{Irr}	
Pattern 3	(AV)	X_{neu}	X_{irr}	X_{Re}	Y_{Irr}	
Pattern 4	X_{Re}	X_{neu}	Ben_{Imp}(ObjNmz)		Y_{Irr}	
Pattern 5	X_{Re}(/ObjNmz)X_{neu}		X_{irr}	X_{Re}(/ObjNmz)	Y_{Irr}	

LV2

- A total of 48 LV2 voice forms were found in the Frog narratives and all of them are cliticized with the 3rd person singular genitive marker =nya' or plural genitive =naha'.

- These LV2 forms functioned as fully lexicalized nominals or as a productive strategy of forming argument or action NMZ or noun-modifying constructions embedded within an NP.

Types of LV2

- Type 1: fully lexicalized
  - (a) <in>lung-an 'feeling, thinking';

       p<in>lg-an 'companion, friend, colleague'
  - (b) inlung-an=nya' ' his/her thinking/feeling'

       blaq yal p(in>)lg-an-naha ' they get long nicely'
  - the forms in (b) mean that LV2 is a verb nominalizer and not
       a VP nominalizer

Types of LV2

type 2 : as nonce action nominalizations marked by a case marker.

(c) Frog2

14 m'uy squ' **in-ŋay-an-naha'** lga',

 tired.av obl pfv-watch-lv-3p.g fp.cp

15 … musa' m-'abi' qu' Yumin.

 asp   av-sleep nom PN

' after they were tired of watching (it) they went to sleep.'

Types of LV2

Type 3 functions as a noun-modifying construction, or as an NMZ.

   (d) Frog 1
      28… wal inu' qu' a
          go   where Nom PM
      29 …(1.0) **q\<n>yat-an=ta'** qpatuŋ qasa maha
           \<pfv>raise-lv.nmz=1p.g frog that QP
       '(He said,) 'where is our pet frog?'
   (e) hpas-un qu' qutux qpatung ka **q\<n>yat-an=nya'**
      play.with-pv nom one frog lk \<pfv>raise-lv=3s.g
     ' (He) played with the one frog he kept.'
   (f) wal mge **qu' q\<n>yat-an=nya'**   lga
     asp leave nom \<pfv>raise-lve=3s.g fp.cp
     ' His pet (frog) got away.'

conclusions

- I have shown that, based on narrative data, there is usually one or at most two favored and stabilized verbalizations for each of the scenes examined, with variability around the stability.

- Variability should not be taken as noise to be discarded. Rather investigating the language of the particular in the sense of Becker (1988) often illuminates the larger issues of grammatical theory.

- These favored verbalizations are the preferred states of the system and they may be thought of as strong attractors in the behavior space in terms of complexity theory.

Conclusions

- Among the stabilized forms/attractors we have shown, the following are of particular significance:

  a. a language without a pivot, though interclausal links are predominantly S=A;

  b. strongly head-initial in relative clause constructions;

  c. voice affixation system is more of a tense system than an aspect system.

- These attractor forms exert a force on the grammatical system, and serve as models for new instances of grammaticalization, or the development of new forms.