Lectures on parametric syntax

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December 2008 – January 2009
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(a) Macro- and micro-variations and parametric theory: principles-and-parameters and minimalism
(b) Theta structure: unaccusativity, ditransitives, and extra-argumentality
(c) Resultatives, event structure, and argument structure
(d) Variation and change: the parametric view

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http://www.people.fas.harvard.edu/~ctjhuang/NTNU/ntnu.html
Macro- and Micro-variations and parametric theory:
principles-and-parameters and minimalism

- Variation and change in parametric theory
- Analyticity and functional categories
- Summary

I: Variation and change in parametric theory

1. Variation, change and acquisition: the P&P view

- UG = Principles and Parameters
- Grammar acquisition = fixing parameter values
- Parameters are often macro-parameters: each parameter is typically associated with a clustering of variable properties:
  - Null subject parameter → free inversion, no subject-ECP effects, etc.
  - Head parameter → V-final, P-final, N-final, etc.
  - Polysynthesis parameter (Baker 1996) → “non-configurationality” free word-order, heavy-head marking/incorporation, pro drop, etc.
  - Nominal mapping parameter (Chierchia 1998) → (+) generalized bare argument, (+) generalized classifier system, (+) plural morphology, etc.
  - The relativized X-bar parameter (Fukui)
  - The (forced) agreement parameter (Kuroda, etc.)
  - Wh-mv’t parameter (derivational timing)
  - Head-movement parameter (Chomsky 1995, etc.)

- The source of parametric variation: parametric change
- The source of parametric change:
  - partial failure in reproducing exact adult grammar during acquisition
  - language contact
  - adult innovation
2. Parametric theory in Minimalism

- Problems with macroparameters:
  - Clustering often proves incomplete
  - As stated, they entail too much UG (and goes against current thinking in view of the relatively rapid evolution of language, Chomsky 2008)
- Lexical parameterization hypothesis (Borer 1984, Fukui 1995, Chomsky 1995) or “Borer-Chomsky Conjecture” (Baker 2008)
  - \(\rightarrow\) microvariations and microparameters
- Problems with microparameters:
  - There are indeed clusterings of properties that drastically reduce the number of actually occurring variations among languages
- FACT: both macro- and micro-parameters exist
  - Tension between explanatory and descriptive adequacy

- Why and where do we have parameters in minimalism?
  - Chomsky 2008: Most linguistic facts as we know them (universals as well as language particulars) represent the different modes of solving the externalization problem. “It might simply be a problem addressed by existing cognitive processes, in different ways, and at different times.”
Details in Huang 2007 (GLOW-in-Asia 6) and Huang 2006 (Chicago Workshop)

(1) Preamble: 陸法言《切韻序》Fa-Yan Lu (601 AD) Qieyun Xu [Preface to Qieyun]:

因論南北是非，古今通塞
yin lun nan-bei shi-fei, gu-jin tong-sai
for discuss south-north yes-no, past-present open-shut
‘For the discussion of the yes-and-no of the south and the north, and the open-and-shut of the past and the preset.’

3. Macro-parametric properties of Modern Chinese (vs. English)

(2) Modern Chinese differs from English and others in exhibiting high analyticity over a full range of lexical and functional categories.

b. Pseudo-incorporation (Massam 2002) a.k.a. “phrasal compound”: 捕鱼 zhuo yu ‘catch fish’ (to fish) 吃饭 chi fan ‘eat rice’ (to eat), 剥皮 bo pi ‘remove skin’ (to peel)
c. Compound and phrasal accomplishments: 打破 da po ‘cause to break’
d. Need overt classifiers for count nouns: san *(ben) shu ‘3-(classifier)-book’; no plural morphology (but –men)
e. Need overt localizers: zou-dao zhuozi *(pang) ‘went to the table-* (side)’
f. Canonical “Kaynean word order”: Subject-Adjunct-Verb-Complement. (= “V2 counting from the right”)
g. Wh-in-situ (instead of wh-movement)
h. No forms equivalent to nobody, each other, etc.
i. Adverbial vs. adjectival fast, all
j. No determiner (but numeral one or determiner this, that)
k. No coercion (e.g. begin the book) (Lin 2005)
l. No (canonical) gapping, and more
• Note the clustering of these properties in the same language to the exclusion of them in, say, English. The properties (some of which having been attributed to some macroparameters) suggest a mega-, macro-parameter of analyticity vs. synthesis. This clustering is *macroparametric* in nature.

(3) How are the macro-parametric properties of Chinese vs. (say) English treated in current parametric theoretic terms (subscribing to lexical parameterization)?

• Individual cases of the Chinese-English macro-parametric variations are captured as follows:

A. Light verbs and pseudo-incorporation vs. denominalization

• English denominalization

```
  vP
   \   /    \\
  \   /     \\
  vP      v'
     /     /    \\
DP     v   NP
      /     /    \\
[DO]   v'   N'
         /     /    \\
        [fish]  [N']
```

- The light verb \( v \) with elementary semantics of DO with no or insufficient phonetic content is [+uninterpretable, +strong]), which induces N-to-\( v \) movement, giving rise to denominalization.
• Modern Chinese: (a) light verb or (b) pseudo-incorporation

- In (a), the light verb *da* (lit. ‘hit’ meaning DO) is [-interpretable, -strong]), hence no movement, no denominalization. \(\rightarrow\) LVC [property (1a)]
- In (b), in the position we have *zhuo* ‘catch’, which is [+interpretable, -strong]. No movement. \(\rightarrow\) pseudo-incorporation construction [property (1b)]

B: Classifiers vs. plurals:

• English: no overt classifiers (light nouns)
  [cf. Borer 2005, etc.]
• Chinese: overt classifiers blocking movement

Similarly for other cases:

C: Localizers: localizer = light noun PLACE
   • English localizer PLACE (light noun) is null
   • Chinese localizer is lexically non-null

D: V-to-v, v-to-I, or I-to-C →
   • Object shift
   • Wh-movement
   • Gapping (a la Johnson, Tang)
     - Chinese has no canonical gapping
     - Chinese has small gapping

E: Adverbial vs. adjectival negation, manner, quantifier, determiner
   • *Not* vs. *no*
   • *Fast*
   • *All*
   • *the*
Consequences:

- Chinese as Davidsonian language par excellence (with light verbs, light nouns, compounds and phrasal accomplishments spelling out the Davidsonian argument structure overtly).
- Chinese as a ‘healthy’ language (lacking ‘viral’ formal elements that trigger overt movement) [cf. Uriagereka]
- Kaynean word order: Subject-adjunct-head-complement.

These are properties of high analyticity, in sharp contrast to (poly)-synthesis.

- The clustering suggests macroparametric variations
- Yet an “analytic-synthetic” parameter would be at odds with lexical parameterization or the BCC
- Instead we see that various categories, acting on the effects of separate items, seem to conspire to give rise to a maximally general pattern of high analyticity

Summary: Chinese vs. English, relatively speaking, using Lu Fa-Yan’s words: 因論南北是非、古今通塞

- Chinese is “no” (not uninterpretable, not strong, not +EPP), and English is “yes”, with respect to the points compared.
- For English, movement traffic (head or XP) is relatively “open” and for Chinese, movement traffic is “shut”.

4. Micro-variations among Modern Chinese dialects (Cantonese, Mandarin, Taiwanese)

A. Classifier stranding: (Cheng & Sybesma 2005)

  - Cantonese drops yi ‘one’ before a classifier quite freely (subject, object, etc.)
  - Mandarin drops yi ‘one’ before a classifier only in postverbal position.
  - Taiwanese SM does not drop yi at all.

- Analysis in minimalist style:
  - Cantonese: [e] ‘one’ is +F, +strong, allowing classifier raising CL-Num-D.
  - Mandarin: [e] ‘one’ is not +F, +strong, hence only inducing Agree, no Move.
  - Taiwanese: Overt yi ‘one’ is not empty [-F, -strong], blocking movement.

\[
\begin{array}{c}
\text{DP} \\
\text{D} \quad \text{NumP} \\
\text{Num} \quad \text{CLP} \\
\quad \text{CL} \quad \text{NP} \\
\quad \text{yi} \quad \text{ben} \quad \text{shu} \quad \text{(Taiwanese: fully analytic)} \\
\quad [e] \quad \text{ben} \quad \text{shu} \quad \text{(Mandarin, Agree, or Aff-Hop)} \\
\quad [e[ \quad \text{bun} \quad \text{syu} \quad \text{(Cantonese: CL-Num-D Move)}
\end{array}
\]

- Taiwanese > Mandarin > Cantonese

• Facts:
  - Cantonese: *Zhangsan qu-le Beijing.*  
    *Zhangsan went-to Beijing.*
  - Mandarin permits either (i) or (ii):
    □ (i) *Zhangsan qu-le Beijing.*  
      *(Zhangsan went-to Beijing)*
    □ (ii) *Zhangsan dao Beijing qu-le.*  
      *(Zhangsan towards Beijing went)*

  - Qing *Piaotongshi* 朴通事 (a textbook teaching Chinese as a foreign language to Koreans during Ching Dynasty) allows only the pattern (ii) above:
    □ *Zhangsan dao Beijing qu-le.* *(Zhangsan towards Beijing went)*

• Analysis:
  - The pattern (ii) is analytic, and (i) synthetic.

```
       VP
        
         V
          
         VP
          
         DP
          
         V
          
    dao  Beijing  qu  (ii) analytic: Ching & Mod. Mandarin  
       [e]  Beijing  qu  (i) synthetic: Cantonese & Mod. Mandarin
```

  - Ching Dynasty Mandarin > Modern Mandarin > Cantonese
→ Other micro-parametric variations:

C: Verb-object word order preferences (Liu 2002, Tang 2006)

D: Differences in resultative compounds and phrases (CHLT 1997 and Wang 2008)

→ Summary, dialectal variations:
- Cantonese > Mandarin > Taiwanese: Cantonese is ‘yes’ and ‘open’ with respect to classifier stranding, Taiwanese is ‘no’ and ‘shut’, Mandarin in between.
- With respect to resultatives: Cantonese > Mandarin > Taiwanese
- With respect to ‘go’: {Cantonese, Taiwanese} > Mandarin

5. Macro-parametric change: the macro-history of Chinese syntax

(6) Macro-parametric properties of OC (500BC-200AD): fairly synthetic, over a full range of constructions:
   a. No light verb (denominalization): 渔 yu ‘to fish’
   b. No pseudo-incorporation: fan ‘have rice’
   c. No compound: synthetic accomplishments. 破 po ‘break’
   d. No overt classifiers for count nouns (no need for ‘light noun’)
   e. No need for overt localizers (no need for ‘light noun’)
   m. Non-Kaynean word order: postverbal adjunct etc.
   n. Wh-movement
   o. Has canonical gapping
   p. qu ‘go to’ from qu ‘depart from’
   q. And more . . . .
(7) Some examples:

OC: 食 > 食 > 食 shi > shi > shi ‘feed > feed > food’
飯 > 飯 > 飯 fan > fan > fan ‘feed with rice, have rice, rice’

有 一 母 見 信 饥, 饭 信。
you yi mu jian Xin ji, … fan Xin.
there-was one woman see Xin hungry rice Xin
‘A woman saw Xin in hunger, [so she] riced Xin.’

- Based on reconstruction by Mei (1973, 1978 and references),
  the causative and denominative prefixes *s- are +F, +strong
  that trigger the relevant movements.
- Head-to-head movement results in synthesis: feed > feed > food
(8) MC and MnC:
- 饭，吃饭，让他吃饭:
  fan  chi  fan  rang  ta  chi  fan
  ‘rice, eat rice, let him eat rice’

- The light verb positions are lexically filled.  no movement.

→ Summary, OC → MC/MnC parametric change:
  • OC was, relatively, “yes” and “open”
  • MC was “no” and “shut” (peaking in analyticity)
  • MnC has developed some mild degrees of synthetic in some dialects
III: Analyticity and functional categories

6. Analyticity

(9) Properties of high analyticity:

- Neo-Davidsonian language par excellence (with light verbs, light nouns, compounds and phrasal accomplishments spelling out the Davidsonian argument structure overtly).
- Relative freedom of uninterpretable, strong, EPP features. [A ‘healthy’ language (lacking ‘viral’ elements that trigger movement) cf. Uriagereka]
- Kaynean word order: Subject-adjunct-head-complement.

7. Functional categories:

(10) The nature of functional categories in a language of high analyticity

- W.r.t. the lexical projections: little v, little n, little a, little p …
  - Analytic: overt non-affixal light categories (verb ‘da’, localizer, absolutive hen)
  - Synthetic: affixal light categories or covert v, n, a, p which trigger head-movement or incorporation: DO, CAUSE, THING, POS, PLACE, NUMBER (cf. Kayne 2005+)
- W.r.t. the functional projections: C, T, D, TelicP, etc.
  - Analytic: overt particles, classifiers, determiners and other items that agree, but do not attract.
  - Synthetic: affixal, uninterpretable, etc.
- ‘Analytic vs. synthetic’ can be described in terms of:
  - Lexical vs. clitic vs. affixal vs. zero-head
  - +strong or not (Move vs. Agree) w.r.t. head [or overt vs. covert head-movement].
  - +EPP or not (XP-movement vs. Agree) [or overt vs. covert XP-movement].
8. Macro- and Micro-parameters

(11) The tension between macroparameters and microparameters
- The clustering suggests macroparametric variations. In fact, macroparameters may be even generalized to a meta-parametre of analyticity vs. synthesis.
- Yet an “analytic-synthetic” parameter would be at odds with the lexical parameterization hypothesis
- Instead we see that various categories, acting on the effects of separate items, seem to conspire to give rise to a maximally general pattern of high analyticity

(12) Reconciling macro- and micro-parameters
- Holmberg and Roberts 2008: Macro-parameters as aggregates of micro-parameters with correlating values.
  - **Aggregates**: each parameter is a micro-parameter that falls under the BBC, limiting variation to formal features of lexical items
  - **Correlating values**: the microparameters acting in concert for markedness reason.
  - **Markedness**: conservatism and economy in acquisition strategy, “generalization of the input”.
- For example:
  For a class of heads Hs, uStrong for H:
  - $uEPP$ for $H_{[F:-]} \neq v \rightarrow \{ [+EPP] / v_{(+EPP)}; \ [-EPP] \text{ elsewhere} \}$
  $\rightarrow$ cross-categorial head-complement word order patterns
The origin of (high) analyticity, (poly)-synthesis, agglutinating: on the basis of some very general minimalist notions such as interpretability, EPP, strong, etc. (H&R 2008):

F? (formal feature?)
  No  yes
   STOP  does F Agree?
     No  yes
      STOP  does F have an EPP feature?
        No  Yes
        (head-initial)  (head-final)
         Does F trigger head-movement?  Is F realized by external Merge?
           No  yes  No  Yes
           STOP polysynthesis  STOP Agglutinating

High analyticity
Where are the parameters and schemata? H&R propose that they are among the “third-factor” properties: (H&R, pp. 000-000)

a. UG does not even provide the parameter schemata. In essence, parameters reduce to the quantificational schema in \([\{f \in C \} \{P(f)\}]\) in which UG contributes the elements quantified over (formal features), the restriction (grammatical categories) and the nuclear scope (predicates defining grammatical operations such as Agree, etc).

b. The quantification relation itself is not given by UG, since we take it that generalized quantification – the ability to compute relations among sets—is an aspect of general human computational abilities not restricted to language. So even the basic schema for parameters results from an interaction of UG elements and general computation.

c. The parameter schemata form networks defined by markedness relations. The markedness notions we have invoked include relative length of description, and generalization of the input (relevant for statements such as (38), which ultimately define macroparameters). Both rely on a general notion of computational conservatism, which again we can think of as a facet of computational efficiency. Again, then, the schemata arise from third-factor properties.
IV. Summary remarks

- Modern Chinese exhibits rather neat patterns of high analyticity, and of change from synthesis to analyticity, over a range of constructions, including some not heretofore analyzed as properties of analyticity.
- High analyticity shows evidence for Davidsonian event structure and for lexical decompositon analysis involving silent heads.
- The observed variations and changes can be described in parametric terms using current theoretical apparatus, and attributed to differences in the ‘degree of uninterpretability’.
- In historical terms, these may in turn be attributed to the degree of grammaticalization of given lexical items.
- Macro-parameters as aggregates of micro-parameters with correlating values as driven by economy and conservatism.

→ Ahead

- Argument structure I: unaccusativity, ditransitives and extra-argumentality
  - To examine a number of predicate types with respect to their argument structure under the unaccusative hypothesis
  - Address the parametric variations in light of the analytic-synthesis distinction

- Argument structure II: Resultatives and unaccusatives
  - Parametric properties with respect to the DOR and cusativization
  - Attributable to analyticity though not obviously so
  - Lexical decomposition

- Variation and change
  - More detailed look at the macro-history of Chinese syntax (OC→MC→MnC)
  - Facts and theory of syntactic change
  - Possible typological connections with Altaic and SOV languages (negative concord/polarity, wh-movement, etc.)