

Part Four: Argument-structure Parameters

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Outline

- Ergativity (Sheehan 2013, 2014)
- Other Case-related hierarchies (causatives, passives, C/T)
- Case as a macroparameter (Dierckx 2012, Saito 2009)
- Conclusion: hierarchies and features (Biberauer & Roberts, to appear)

I: Ergativity

Basic alignment

Accusative (ACC): English (Germanic)

(1) He is kissing her

She is eating

Ergative (ERG): Yup'ik (Eskimo-Aleut) – Bobaljik (1993: 3)

(2) Angute-m qusngiq ner-aa.
man-ERG reindeer.ABS eat-TR.3s/3s

'The man is eating (the) reindeer.'

(3) Qusngiq ner' -uq.
reindeer.ABS eat-INTR.3s

'The reindeer is eating.'

Ergative splits I: aspect

1. emakume-a-k ogi-a jaten du (Basque)
woman-D-ERG bread-D eating has
“The woman eats (the) bread.”
2. emakume-a [ogi-a jate-e-n] ari da
woman-D bread-D eat-NMLZ-LOC engaged is
“The woman is engaged in eating the bread.”
(Laka 2006:173, in Sheehan 2014a:4)

Ergative splits II: root vs embedded

1. ba had3u katε (Měbengokre, Jê)

1-NOM radio break-V

“I broke the radio.”

2. ba [kutε tεp krěn] pumũ

1-NOM 3-ERG fish eat-N see-V

“I saw him eating fish.”

(Salanova 2009:6, 8; in Sheehan 2014a:5)

Ergative splits III: person

1. Nada bayi yaRa balgan. (Dyirbal)

I-NOM there-ABS man hit-NFUT

“I am hitting the man.”

2. Nayguna bangul yaRa-ŋgu balgan.

I-ACC there-ERG man-ERG hit-NFUT

“The man is hitting me.”

(Dixon 1972:60; in Sheehan 2014a:6)

The Silverstein Hierarchy

1st/2nd-person pronouns > 3rd-person pronouns > human common nouns > non-human animate common nouns > inanimate nouns

- Known to be relevant for Differential Object Marking (DOM)
- Sheehan suggests that Dyirbal may combine DOM and Differential Subject Marking (DSM)

Alignment hierarchy (Sheehan 2013)

Basic alignment parameter: Does transitive 'v' assign theta-related ERG to its specifier in L?

N
Accusative
(*Russian...*)

Y
Split-S parameter: Do all 'v's in L assign ERG?

Y
Morphologically Split-S
(*Chol, Basque*)

N
Syntactic ergativity parameter:
Does v_{ERG} bear an EPP feature in L?

N
Morphologically
ergative
(*Walpiri*)

Y
High/low ABS parameter:
Does v_{ERG} bear phi-features in L?

Y
Low ABS
(*West Greenlandic, Tagalog*)

N
High ABS
(*Dyirbal, Q'anjob'al*)

Split-S alignment: all v assign ERG

(Western) Basque, SOV (Laka 2006):



(1) Txalup-a hondora-tu da.

boat-DET.ABS sink-PERF is

'The boat sank.'

(2) Ekaitz-a-k txalup-a hondora-tu du.

storm-DET-ERG boat-DET.ABS sink- PERF

has

'The storm sank the boat.'

(3) Oli-k lo egi-ten du.

Oli-ERG sleep do-IMPF has

'Oli sleeps.'

Syntactic ergativity

- (i) ergative-absolute topic-chaining
- (ii) ergative-absolute control
- (iii) ban on A'-extraction of ergative subjects

“While the data in evidence of [i, ii] have become controversial (see Legate 2012 and [Sheehan 2014a] section 3.5), [iii] has proven more robust cross-linguistically” (Sheehan 2014a:11).

The ban on A'-extraction of ERG subjects

1. e fefine [na'e tangi]. (Tongan)
DEF woman PST cry
“The woman who cried.”
2. e fefine [na'e fili 'e Sione].
DEF woman PST choose ERG Sione
“The woman (who) Sione chose.”
3. e fefine [na'e *(ne) fili 'a Sione].
DEF woman PST 3SG choose ABS Sione -- resumptive pron
required

Accounting for the ban on A'-extraction

- v has an EPP feature, raising the internal argument to its Spec, where it becomes an intervener for A'-extraction of the external (ergative-marked) argument (Aldridge 2004, 2008; Sheehan 2014a,b)

C ... [_{VP} IA [_{VP} EA v[EPP, ERG] [_{VP} (IA)]

- here IA (in an A'-position) blocks A'-movement of EA to SpecCP

High (T) vs Low (v/V) ABS

ABS argument is the controller of PRO, e.g. Dyirbal:

1. [yabu ŋuma-ŋgu giga-n [PRO gubi-ŋgu mawa-li].
mother-ABS father-ERG tell-NONFUT doctor-ERG examine-PURP
“Father told mother_i for the doctor to examine PRO_i.”
2. [ŋuma banaga-Nu [PRO yabu-ŋgu bura-li].
father-ABS return-NONFUT mother-ERG see-PURP
“Father_i returned for mother to see PRO_i.”

(Dixon 1994:168-9; in Sheehan 2014a:12)

Ergative implicational universals

- i. ergative with unergatives > ergative with transitives
- ii. Syntactically ergative > morphologically ergative
- iii. Ergative control > ban on A'-movement of ERG > ergative case/agreement
- iv. Split-S alignment > no ban A'-movement of ERG
- v. ergative agreement > ergative case/no case
- vi. Ergative case > overt ergative case
- vii. Ergative > not SVO

Accounting for the implications I (Sheehan 2014a)

- **Implication (i):** Y to the Split-S parameter → all EAs (unergative and transitive) have ERG (but not the IA of an unaccusative); N implies only transitive v assigns ERG)
- **Implication (ii):** syntactically ergative languages are lower on the hierarchy and so form a subset of ergative languages
- **Implication (iii):** high-ABS languages are lowest on the hierarchy and so form the “most ergative” subset

Accounting for the implications II

- **Implication (iv):** split-S languages are higher in the hierarchy than syntactically ergative languages, hence they don't show the restriction on ERG-extraction
- **Implication (v):** doesn't follow directly from the hierarchy, but as Sheehan (2014b:7) observes, does if we add the postulate:

Morphological agreement parameter:

Morphological agreement tracks abstract/morphological Case/case.

- since overt ergative-marking can correspond to abstract NOM-ACC, but not vice-versa, (v) now follows.

The implications III

- **Implications (vi) and (vii):**

vi. Ergative case > overt ergative case

vii. Ergative > not SVO

Can't be accounted for, but do appear to hold.

(See below on (vii))

The alignment hierarchy again

Basic alignment parameter: Does transitive 'v' assign theta-related ERG to its specifier in L?

N
Accusative
(*Russian...*)

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Split-S parameter: Do all 'v's in L assign ERG?

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Questions raised by the alignment hierarchy

- Are all hierarchies implicational in this way? (Sheehan 2014b argues they should be)
- Where does it fit in the NO > ALL > SOME schema? (Sheehan 2014b argues it doesn't have to)
- NB all the parameters have to do with features of v
- **Ergativity is not a macroparameter!** Sheehan's hierarchy goes from meso to micro.
- The ergativity options form a subpart of a Case hierarchy (dealing with options for v[ERG] (NB then we see NO-ERG > ALL-ERG > SOME-ERG here))

II: Other Case-related hierarchies

A Causative Hierarchy (Sheehan 2014c)

Basic alignment parameter:

Does Appl-trans (the causative head) externalise its theta-role?

N: ECM causative, as in English:

1. John had Mary eat the cake.

(There's a thematic restriction as the Causee must be animate:

2a. *My new invention had the wind destroy the house.

b. My new invention made the wind destroy the house.)

The Causative hierarchy II

Y to Basic Alignment Parameter:

Typical Romance faire-infinitive (FI) (Kayne 1975):

Il fera boire du vin à son enfant. (French)

He make-FUT drink-INF of wine to his child

“He’ll make his child drink wine.”

The Causative Hierarchy III

The Split-Apppl Parameter: do all causative Appls “externalise” in this way?

Y: all Causees (transitive and unergative) show oblique marking:

Juan ha hecho hablar *(a) una alumna. (Peninsular Spanish)

John has made speak-INF to a student

“John made a student speak.” (Sheehan 2014d:10)

The Causative Hierarchy IV

The N value of the Split-AppI parameter gives an “ergative” alignment in FI, as in French (and most of Romance):

Il fera chanter (*à) son enfant. (French)

He make-FUT sing-INF (to) his child.

“He’ll make his child sing.”

The Causative Hierarchy V

Object-raising: does Appl have an EPP feature?

Y: obligatory clitic-climbing, e.g. French:

Il **le lui** fera boire.

He it-ACC him-DAT make-FUT drink-INFIN

“He’ll make him drink it.”

The Causative Hierarchy VI

N to object-raising: no obligatory clitic-climbing, e.g. Catalan:

Els regals, fare posar-los junts a la Maria.

The gifts make-1Sg-FUT put-INFIN=them together to the Mary

“The gifts, I’ll make Mary put them together.”

(Villalba 1994; in Sheehan 2014c:1)

The Causative Hierarchy VII

High/low ACC parameter: does Appl have Case/phi-features?

Y: causativiser is immune to passive (French)

N: causativiser can be passivized (Italian):

La macchina e' stata fatta aggiustare a Maria.

The car is been make-PASS repair-INFIN to Mary

“The car has been made repair to Mary.”

- Also various consequences for licensing anaphors in the causative complement

Causatives in Japanese

- can passivise:

Tanako-wa ringo-o tabe-sase-rare-ta

Tanako-TOP apple-ACC eat-CAUS-PASS-PAST

“Tanako was made to eat the apple” (Yasuyuki Fukotomi, p.c.)

- NB V-attraction to CAUS and PASS, unlike Romance (where there’s VP-movement in causatives: Kayne 1975, Burzio 1986, Baker 1988, etc.)
- passivisability of causatives makes Japanese look (superficially) like Italian, but given what we said in Part 2 on radical prodrop, this parameter can’t have to do with Case/phi → general constraint on “passivisability”?

General form of ergative and causative hierarchies (and datives)

- (i) basic alignment option: does transitive H (v/Appl) “license” the argument in its Specifier?
- (ii) generalisation option: are all H the same?
- (iii) restriction option: is licensing limited to a subset of transitive H?
- (iv) extension option: is licensing extended to a subset of unergatives?
- (v) EPP option: does H have an EPP feature?
- (vi) anti-Burzio option: does H lack Case/phi?

A passive hierarchy

Basic alignment option: does H (=Voice) license the EA?

N: no passives (some Bantu, creoles, etc.)

Y: the EA can be “suppressed” (licensed as an implicit argument, see Part Two; NB what we referred to as T-licensing there might involve Voice)

Passives (Collins 2005, Roberts 2008)

.. T .. [_{VoiceP} Voice [_{vP} EA v [_{vP} V IA]]]

- Voice is the phase head, and hence has probing features which must Agree with an argument
- v introduces the EA
- In an active, Voice donates its uFs to v, which thereby licenses the IA (as “ACC”) and the EA raises triggered by EPP/edge features on Voice (and T), and gets probed by T’s uFs.
- In a passive, Voice withholds its uFs; so the IA can’t be licensed but the EA is directly probed by Voice (when the EA is overt, *by* manifests this);
- So the EA is “frozen in place” and the IA has to move;

[A note on intervention: how does IA move over EA? Two options: (i) EA is not an intervener, being separately licensed by *by* (this depends on one’s view on defective intervention); (ii) EA is an intervener and vP raises to SpecVoiceP, allowing the IA to be smuggled past the EA (Collins 2005)].

A passive hierarchy

Basic alignment option: Does transitive voice withhold its phi-features from v?

N: no passives

Y: passives

Cf. Keenan & Dryer's (2006:329) G1: "Some languages have no passives," and G2: "If a language has any passives it has ones characterized as basic [i.e. of canonical transitives] .. moreover, it may have only basic passives."

Cross-linguistic distribution

Keenan and Dryer (2006:329-330) cite the following languages without passives: Enga (C. N. Li and Lang 1979), Chadic languages with the (partial) exception of Hausa (Jaggar 1981), Tamang (Sino-Tibetan; Mazaudon 1976), Isthmus Zapotec (Oto-Manguean; Pickett 1960), and Yidj (Australian; Dixon 1977a). Other apparent examples include Yoruba (Sheehan: fieldwork), Thai (van der Wal: fieldwork), (plus many ergative languages).

The Passive Hierarchy II

Is phi-withholding *generalised* to all vs in L?

Y: impersonal passives of unergatives (Turkish, Dutch, German, Latin (-ur)), e.g. German:

1. Es wurde getanzt.

It was danced.

“There was dancing.”

N: passives of transitives only (English, Romance, etc.).

Cross-linguistic distribution

Keenan and Dryer cite: Dutch, German, Latin, Classical Greek, North Russian dialects; other languages include Ukrainian, Latvian, Lithuanian, (Estonian, Finnish?), Shona (Bantu), Turkish, and Taramahua (Uto-Aztecan), Uto-Aztecan languages generally Langacker (1976) , Kirsner (1976) for Dutch and Timberlake (1976) for North Russian dialects. Also Welsh (Arman 2014), Irish (Noonan 1994, McCloskey 2011), Scandinavian languages.

(See Comrie (1977), Perlmutter (1978), Sierwierska (1984: *The passive: A comparative linguistic analysis*. London: Routledge.), Blevins (2003), and to a lesser extent Keenan (1976b)).

The Passive Hierarchy III

is phi-withholding *restricted* to some transitive vs in L?

Y – Greek, Hebrew (agents only)

N – default pattern (agents, causers, etc)

The Passive Hierarchy IV

The EPP option: does Voice have an EPP feature?

N: IA can stay in situ (perhaps subject to definiteness effects), e.g. Spanish, Italian:

1. E' stata mangiata la mela.
 - Is been eaten the apple

Y: IA moves, e.g. English:

2. There was an apple eaten.

(NB need to abstract away from EPP feature of C/T).

The passive hierarchy IV (cont'd)

The EPP option captures the well-known intra-Germanic difference between English and the rest, in that English requires OV order in “small-clause” passives (i.e. where SpecTP/CP is filled by an expletive and so the IA doesn’t move there) but the rest of Germanic (and Spanish/Italian) don’t:

- a. There were [several students arrested]
- b. ...að það var eitthvert epli borðað [Icelandic]
that there was an apple eaten (Vikner 1994: 193)
- c. Sono stati arrestati molti studenti.
“(There) were arrested many students.”

NB the NSLs here (Sp/It) differ from Germanic (and French) in lacking a definiteness effect on the IA:

- a. Sono stati arrestati gli studenti.
- b. *Il a été arrêté les étudiants.

The Passive Hierarchy V

are voice's phi-features suppressed?

N – overt by-phrase possible, e.g. English

Y – no overt by-phrase, e.g. Latvian:

Es tieku macīts (*no mātes)

I am taught by mother

'I am taught.'

(Lazdina 1966, cited in Keenan & Dryer 2006:331)

Ergative/causative/passive hierarchies

- All have the same general form (as we saw)
- All involve similar (the same?) heads: “flavours” of v, or Voice, Appl, etc.)
- Clearly a number of questions remain open, but the approach to parametrising Case/Agree (generalised alignment) seems promising

Smuggling (Collins 2005)

.. $T_{[u\phi, \wedge]}$.. $[_{VoiceP} \text{Voice } [_{VP} \text{EA } v \ [_{PrtP} \text{Prt } VP]]]]$

- PrtP movement to SpecVoiceP:

.. $T_{[u\phi, \wedge]}$.. $[_{VoiceP} [_{PrtP} \text{Prt } VP] \text{Voice } [_{VP} \text{EA } v \ ([_{PrtP} \text{Prt } VP])]]$

- here the VP-internal IA can be probed by T without EA intervening
- if the by-phrase occupies the EA position, word order is correct (other IA, particles etc. precede the EA)

Smuggling in FI causatives?

(Cf. Kayne 1975, Burzio 1986, Baker 1988, etc.).

faire [_{VoiceP} **Voice** [_{vP} **EA v** [_{InfP} **Inf VP**]]]

- Smuggling of InfP gives the right order:

faire [_{VoiceP} [_{InfP} **Inf VP**] **Voice** [_{vP} **EA v** ([_{InfP} **Inf VP**)]]]

Je la fais laver (la) à Marie.

I it make wash to Marie = I will make Marie wash it

Smuggling and ergativity (Roberts 2010)

A passive-like derivation:

$T_{[u\phi^{\wedge}]} [VoiceP \text{ Voice}_{[u\phi^{\wedge}]} [VP EA_{[i\phi]} v [VP V IA_{[i\phi]}]]]]$

$IA_{[i\phi]} T_{[u\phi]} [VoiceP [VP V (IA_{[i\phi]})] Voice_{[u\phi]} [VP EA_{[i\phi]} v ([VP V IA_{[i\phi]}])]]]$

If ERG, then not SVO (implication (vii))

Derived structure of SVO ergative clause after smuggling:

.. T [VoiceP [VP IA V] Voice [vP EA v (VP)]]

The Final Over Final Constraint (Lecture One):

*[β P [α P α γ P] β]

(where α P is the complement β and γ P is the complement of α).

Implication (vii) < FOFC + smuggling?

Can we generalise the alignment hierarchies further?

- Obvious candidate is the C/T system
- Here the “basic alignment” and “split” options don’t apply as these refer to arguments introduced by (types of) v
- But the EPP and Case options do, rather obviously

The T hierarchy

- Does T have an EPP feature?

N: EA doesn't raise to SpecTP: McCloskey (1996), Roberts (2005) on Irish and Welsh respectively:

a. Gwelwyd plant.

See-PASS children.

"Children were seen."

b. ?Mae yn yr ardd blant.

Is in the garden children.

"There are children in the garden."

VSO order and no obligatory (pre- or postverbal) expletives.

The T-hierarchy II

Y: T has EPP → movement to Spec (English, etc)

Case option: does T assign Case/Agree?

N: Finnish (Holmberg & Nikanne 2002, Holmberg 2010a,b):

Jari sanoo että **tässä** istuu mukavasti.

Jari says that here sits comfortably

“Jari says that **one** sits comfortably here.”

-- adverb in SpecTP here

The T-hierarchy III: complications

- The Case option (Y in English, of course) refers ambiguously to Case on the argument in SpecTP or in the c-command domain of T (unclear how Finnish behaves in the latter respect), contrary to the “v-hierarchies” seen earlier
- Feature inheritance interacts with T’s properties
- Chomsky (2008): T’s EPP and Case inherited from C
- Ouali (2008): three inheritance options: DONATE (T has F), KEEP (C has F) and SHARE (both have F)

Biberauer & Roberts (2010) on inheritance

- 1a. C DONATES phi and T features to T: Romance, English
- b. C KEEPS phi and T features: (most) Continental Germanic
- 2a. C SHARES its EPP feature: Mainland Scandinavian
- b. C DONATES its EPP feature: Romance

→ the T hierarchies only apply in the case of DONATE and SHARE

→ the C hierarchies only apply in the case of KEEP and SHARE

The C-hierarchy

- The EPP option: does C have an EPP feature?

N: no verb second

Y: “full” verb-second of the well-known Germanic kind:

- a. Heute las ich ein Buch. (German)
Today read I a book
- b. Ein Buch las ich heute.
a book read I today
- c. *Heute ich las ein Buch.

The C-hierarchy II

The Case option: does C assign Case?

N: this may arise in “residual V2” in Romance (residual V2 being where C[+F] has an EPP (F is canonically Q, as in Modern English), e.g. French:

1. *A Jean lu le livre?

Has John read the book?

2. A-t-il lu le livre?

Has he read the book? (NB confirms that clitics are [-Case])

The C-hierarchy III

Y for Case option: V2 Germanic:

a. Heute las ich ein Buch. (German)

Today read I a book

b. Ein Buch las ich heute.

a book read I today

◦ Here C licenses NOM Case on the subject. Also in English residual V2:

c. Did John read the book?

Questions about Case hierarchies

- Ergative, causative, passive, (dative), T and C all have very nearly the same general form
- The form corresponds to the NO > ALL > SOME schema
- Other cases? GEN inside DP
- V's regular active transitive ACC option? Or does this fall under the passive hierarchy (as the Case option)?
- Inherent Case is presumably something else (and entirely lacking in English (Kayne 1984))
- These are all meso/micro options

Burzio's Generalisation

EA is present iff IA has ACC

(reducible to a property of v – Marantz)

John broke the vase.

The vase broke.

*There broke the vase.

IA must have ACC where there's an EA as (all else equal) it has no other way of being Case-licensed (Chomsky 1986)

(why EA should depend on ACC, if this is correct, is less clear)

Generalised Burzio's Generalisation

- The lower parts of the v-hierarchies reflect this
- Loosely put, if there's an EA, how is the IA licensed?
By EPP, or by an "extra" Case/phi
(Thanks to Michelle Sheehan for discussion of this point)
- Note that this doesn't apply to C/T, which in this sense systematically violate the GBG

Case macroparameters?

The macro-option:

Does the system have Case?

Y: Germanic, Romance, Celtic (any languages with morphological case?)

N: Bantu (Dierckx 2012), radical prodrop (Saito 2009), polysynthetic languages (Baker 1996).

Dierckx on Bantu

- No raising, no obligatory A-movement, A-movement always available (no “freezing in place”), subjects of infinitives freely available, non-nominative subjects may agree
- Activity? Connection to the very rich classifier/agreement system?
- Cf. also van der Wal (2014) for arguments that at least one Bantu language, Makhuwa, does have Case (as it doesn’t show the diagnostic properties enumerated by Dierckx)

Saito on Japanese

- DPs are generally able to lack a Case feature and hence probes must be able to lack uF or they would cause the derivation to crash
- general possibility of null arguments and argument ellipsis
- but NB Japanese (and Korean) have productive morphological causatives and passives (as do many Bantu languages)
- possibility that PASS and CAUSE exist as lexical items (light verbs) in these languages and simply modify argument structure (NB lack of obligatory A-movement in Japanese passives)

Polysynthetic languages

- Baker's basic intuition: incorporation/polysynthesis instantiates another way to be licensed (cf. his Morphological Visibility Condition, MVC)
- Our implementation: defective goals are inherently active (i.e. incorporation plays the functional role of Case, but in relation to Activity, not Visibility)
- Both the MVC and the above retain a certain amount of stipulation

A Restriction on Mohawk Causatives

Baker (1996:348ff.): only unaccusatives can show the morphological causative in Mohawk:

1. Wa-ha-wis-a-náwλ-ht-e'.
FACT-MS-ice-∅-melt-CAUS-PUNC
“He melted the ice.”
2. *Ká'sere' wa'-uk-hnínu-ht-e'
car FACT-FsS/1sO-buy-CAUS-PUNC
“She made me buy a car.”

Mohawk causatives II

- No Case available, and only direct objects can incorporate → in morphological causatives, no way to license/agree with non-IAs of unaccusatives
- This restriction holds in a range of polysynthetic languages (Nahuatl, Tanoan, Gunwinjguan, Chuckchee, but NB not in Ainu)
- If defective goals fail to incorporate features of the probe aren't valued → incorporation is the only way Caseless DPs can satisfy activity (in a +phi language)
- Japanese, being –phi, has no incorporation but arguments can simply drop

Case Macroparameters again

- Lack of Case and phi might give rise to a lexically *richer* instantiation of functional heads (because they don't have to have the capacity to probe)
- Classifiers again
- Chinese localisers (Biggs 2014)
- Chinese compound predicates; “verbal classifiers” (Hu 2014)

East Asian Macroparameters

- Japanese and Chinese (and Korean?) are [-Case, -Tense, -Pers]
- Is this a giga-parameter?
- Consequence is that many lexically contentful elements can occupy functional positions to semantic (but not formal, in the sense of feature-valuing/licensing) effect:
 - Classifiers
 - Localisers
 - Serial verbs
 - “Case particles”??

V: General conclusions

The five hierarchies from Lecture One

- Word-order
- Null arguments
- Word structure (incorporation/head-movement)
- A'-movement
- Alignment

The emerging picture

The hierarchies purely reflect the availability and distribution of formal features:

^: word-order

Phi/Person: null arguments/incorporation in D

Tense: incorporation in the clause

Case: activity (macro), generalised alignment (meso/micro)

Extensions (not explored here)

General “A’-systems”:

- **WH**: see Parts Two and Three on East Asian wh-in-situ, but issues to do with multiple movement (and see below on extraction from DP)
- **Negation** (see Biberauer, in progress): types of concord, existence of NPIs (Acquaviva 1995 on Irish, Huang 2013 on Chinese (Part Three))
- **Focus** (see Bazalgette, in progress)
- **Quantification?** (Polysynthetic systems lack D-quantifiers, Baker 1996).
- **Edge features**: D or v or C? On D, implies left-branch extraction from DP; absence is a no-choice option; v/C needed for standard wh-movement

Extending Emergentism

Classical P&P approach (both GB and Minimalist, see Chomsky 1981, 1995): parameters and features UG-given (Factor One);

Conservative emergentist view (see above): parameters are emergent;

Radical emergentist view (Biberauer 2013): features are emergent.

Two third-factor principles

Feature economy (FE): postulate as few formal features as possible

Input Generalisation (IG):

For a given set of features F and a given set of functional heads H , given a trigger for feature $f \in F$ of a functional head $h \in H$, the learning device generalises f to all functional heads $h_1 \dots h_n \in H$.

Formal features as emergent properties

UG: merely specifies [uF] vs [iF] (or [Att:val] where “val” can be blank);

PLD: drives postulation of set of features by learner;

F3: Feature Economy and Input Generalisation
interact with each other, UG and PLD so as to create hierarchies.

The basic learning path I

Assume no F (FE, IG, but usually not a choice);

Generalise F triggered by PLD (IG): favours macroparameters;

Retreat from generalisation triggered by PLD;

Make a featural distinction and do it all again (move down the hierarchy).

The learning path II

Another way to look at it:

- i. Postulate NO formal features on heads;
- ii. Postulate ALL heads have a given feature;
- iii. Postulate SOME heads have the feature (i.e. make a new categorial distinction).

NO > ALL > SOME I

For \wedge :

NO: rigidly head-initial word order across categories

ALL: rigidly head-final word order across categories

SOME: choose D^\wedge or C^\wedge (unclear which has precedence):

D^\wedge : commonest U20 pattern: N>A>Num>D(em)

C^\wedge : final Cs, and all else in clause

(Chinese and Thai are both D^\wedge but not C^\wedge)

NO > ALL > SOME II

Person:

NO: radical prodrop, no agreement in the clause or DP, bare nouns can refer to kinds in any position, etc. (see Part Three)

ALL: consistent prodrop for all arguments, general pronominal-argument properties, consistent N-to-D movement (if [-Case], then noun-incorporation)

SOME: consistent null subjects, N-to-D, object clitics

NO > ALL > SOME III

Tense:

NO: no V-movement, serial verbs/"rich" auxiliaries, compound predicates in resultatives, etc.

ALL: V-movement to T/C (depending on feature inheritance there), rich tense morphology, morphological passives, causatives, applicatives

SOME: variable possibilities of V-movement, auxiliaries, poor tense morphology

NO > ALL > SOME IV

Case:

NO: either polysynthesis + incorporation or radical prodrop (depending on value for Person)

ALL: ergative, causative, passive alternations, no D-incorporation (except perhaps clitics), EAs leave vP (for either TP or CP)

SOME: variation in alignment options, EAs may leave vP

The scope of the P&P approach

- language typology: parameters make predictions about (possible) language types, e.g. head-initial $X > YP$ vs head-final $YP > X$;
- L1 acquisition is parameter-setting;
- language change is parameter change.

(as we said at the beginning of Part One)

Typology

Romance: $-^{\wedge}$, strong Person (except French), strong T, -ERG, +CAUS, +PASS, EPP?

English: $-^{\wedge}$, weak Person, weak Tense, +EPP, -ERG, -CAUS, +PASS

West Germanic: T^{\wedge} (D unclear), weak Person, strong T (on C), +EPP (on C), -ERG, +CAUS, +PASS

Japanese/Korean: $+^{\wedge}$, -Person, -Tense, -Case

Typology II

Chinese: D[^], C-[^], -Person, -Tense, -Case

Mohawk: -[^], strong Person, strong Tense, -Case on D, +ERG, +CAUS

Basque: +[^], strong Person, strong Tense(?), +ERG

Bantu: -[^], strong Person, weak T, -Case (not Makhuwa)

- These are still quite coarse-grained typologies, but form the basis for closer work on micro-variation within the macro-schemata indicated

Diachrony

Macroparameters are strongly resistant to change, which requires intensive, long-standing contact

Mesoparameters are somewhat resistant to change, but can under contact (cf. French loss of consistent null subjects, perhaps under Germanic influence)

Microparameters change quickly and endogenously (grammaticalisation)

Nanoparameters highly unstable and prone to disappear

Acquisition/learning

- the leading idea is emergentism (see above): UG highly austere (Merge, Agree, uF/iF, ^, phases)
- NO > ALL > SOME as determined by FE and IG (3rd factors) drive acquisition, as features and parameters emerge
- See Biberauer (in progress) for more details

A final observation

- Parameter hierarchies and feature hierarchies are close to coalescence, which must be a good thing (Occam's Razor)
- We clearly want to collapse these as far as possible, and the way forward is conceptually clear (empirically fraught with difficulties of course)

Cinque's (1999) clausal hierarchy

Mood_{Speech Act} T(Past) Mood_{Evaluative} T(Future) Mood_{Evidential} Mod_{Epistemic}
 Mod_{Possibility} Asp_{Habitual} Mood_{Irrealis} Mod_{Necessity}
 Asp_{Celerative(I)} Mod_{Volitional} Asp_{Repetitive(I)} Asp_{Frequentative(I)}
 Asp_{Celerative(I)} T(Anterior) Mod_{Obligation} Mod_{Ability/Permission}
 Asp_{Perfect(?)} Asp_{Retrospective} Asp_{Terminative} Asp_{Continuative}
 Asp_{Generic/progressive} Asp_{Prospective} Asp_{Proximative} Asp_{Durative}
 Asp_{SgCompletive(I)} Asp_{PlCompletive} Voice Asp_{Celerative(II)}
 Asp_{SgCompletive(II)} Asp_{Repetitive(II)} Asp_{Frequentative(II)} Asp_{SgCompletive(II)}

Collapsing hierarchies: Biberauer & Roberts (to appear)

“From a general perspective of methodological parsimony, it would be surprising if it turned out to be the case that there really were three distinct formal hierarchies, and the empirical case for this would have to be very strong. From a minimalist perspective in particular, we would not want, again unless the empirical case were irrefutable, to attribute such apparent complexity to UG or to the interacting factors contributing to the overall design of the language faculty” (p. 1)

Levels of magnification in the clause

Extended Projection (V) > phase (C, v) > Core
Functional Categories (C, T, v) > “cartographic
fields” (e.g. Tense, Mood, Aspect, Topic, Focus) >
semantically/lexically distinct heads.

Levels of magnification of parameters

Extended Projection (V): macro: “spread” of \wedge , Person, Tense to highest positions (C, D)

Phase (C, v): meso: NB “generalised alignment” and v

Core Functional Categories (C, T, v): micro (auxiliaries, complementisers)

Semantically/lexically distinct heads: nanoparameters.

THANK YOU!
