# Markedness and Morphosyntactic Variation in Pronominal Systems

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IS SYNTAX DIFFERENT? COMMON COGNITIVE STRUCTURES FOR SYNTAX AND PHONOLOGY IN OPTIMALITY THEORY

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Variation within languages is a reflection of variation between languages. —Emmon Bach
(*Syntactic Theory*, 1974)

## 1 A parable from phonology:[1]

Once upon a time there were phonological rules: e.g.

coda devoicing: $[-\text{son}] \rightarrow [-\text{voice}]$ / $\_\_\, ]_\sigma$
vowel nasalization: $\text{V} \rightarrow [+\text{nasal}]$ / $\underbrace{\_\_\text{N}}_{\sigma}$

Grammars consisted of rules. e.g. Dutch had the rule of coda devoicing; English did not. In Dutch:

/bɛd/ → [bɛt]
/bɛd.ən/ → [bɛ.dən]

OT replaced such rules by universal constraints:

a. *VOICED-CODA: obstruents must not be voiced in syllable coda position

b. IDENT-IO(VOICE): the specification of the feature [voice] of an input segment must be preserved in its output correspondent

Constraints conflict. (b) is a Faithfulness constraint; these preserve contrasts. (a) is a Markedness constraint; these penalize complex or 'difficult' structures, and so tend to erode contrasts. A particular language harmonizes the conflicting constraints by prioritizing (ranking) them:

[1]—freely adapted from Kager 1998: ch. 1.

Dutch: *VOICED-CODA ≫ IDENT-IO(VOICE)

For input /bɛd/, Dutch has:

| | Candidates: | *VOICED-CODA | IDENTI-IO(VOICE) |
|---|---|---|---|
| ☞ | [bɛt] | | * |
| | [bɛd] | *! | |

English: IDENT-IO(VOICE) ≫ *VOICED-CODA

For input /bɛd/, English has:

| | Candidates: | IDENTI-IO(VOICE) | *VOICED-CODA |
|---|---|---|---|
| | [bɛt] | *! | |
| ☞ | [bɛd] | | * |

Where do constraints come from?

> The markedness approach of linguistic universality is built on two assumptions. First, markedness is inherently a relative concept: that is, a marked linguistic element is not ill-formed *per se*, but only in comparison to other linguistic elements. Second, what is 'marked' and 'ummarked' for some structural distinction is not an arbitrary formal choice, but rooted in the articulatory and perceptual systems. (Kager 1998: 2)

e.g. Voicing is unmarked in vowels, marked in obstruents (Ito and Mester 1998: VOP—Voiced Obstruent Prohibition). Across languages syllable onsets have more voicing contrasts than codas, and this can be explained by the greater salience of onsets, which enhances perception of voicing contrasts.

What is gained by all this?

**Factorial typology:**

| | | |
|---|---|---|
| I | IDENT-IO(VOICE) ≫ *VOICED-CODA, VOP | Full contrast (e.g. English) |
| II | *VOICED-CODA ≫ IDENT-IO(VOICE) ≫ VOP | Positional neutralization (e.g. Dutch) |
| III | VOP, *VOICED-CODA ≫ IDENT-IO(VOICE) | No contrast (e.g. Polynesian) |

**Predictions:**

A hypothetical language predicted not to occur (Kager 1998: 32):

- A contrast of voice in syllable codas: lap ∼ lab, pot ∼ pod, muuk ∼ muug
- but no contrast of voice elsewhere: paa (*baa), ma.tol (*ma.dol), tol.ku (*tol.gu)

**A fourth variation type:** variation without (semantic) contrast (allophonic variation):[2]

| | | | |
|---|---|---|---|
| cat | [kæt] | can't | [kæ̃nt] |
| sad | [sæd] | sand | [sæ̃nd] |
| met | [mɛt] | meant | [mɛ̃nt] |
| lick | [lɪk] | link | [lɪ̃ŋk] |

IV $*\mathrm{V}_{oral}\ \mathrm{N} \gg *\mathrm{V}_{nasal} \gg$ IDENT-IO(NASAL) Allophonic variation

# Is syntax different?

- **Context-free markedness constraints:** e.g. VOP, NOCODA
- **Context-sensitive markedness constraints:**
  e.g. VOICED-CODA (= VOP & NoCoda), $*\mathrm{V}_{oral}\ \mathrm{N}$

**Characteristic typological patterns emerging from interactions of these constraint types:** no contrast, partial contrast (positional neutralization), full contrast, and positional variation without (semantic) contrast (allophonic variation).

If syntax is no different, we will expect to find (i) similar typological patterns of variation in morphosyntactic inventories, (ii) interactions of context-free and context-sensitive markedness constraints from which they follow, and (iii) functional motivation for the constraints in terms of the perceptual and cognitive systems.

# 2 Typological variation in pronominal forms

(1) **Range of personal pronominal forms:** (Bresnan 1998a,b)

Zero Bound Clitic Weak Free

**Zero:** pronominals having no expression in morphology or syntax

**Bound:** morphologically bound pronominals, also called pronominal inflections, which are expressed by affixal structure on a head

**Clitic:** pronominals that have a specialized syntactic position and are phonologically bound to a host ('special clitics' in Zwicky's (1977, 1985) sense)

**Weak:** freestanding pronominal forms, neither phonologically nor morphologically bound to another constituent, but atonic and differing in syntactic distribution from Free pronouns

**Free:** freestanding pronominal forms which may receive primary sentence accents

(2) **Classification of pronominal forms:**

$$\underbrace{\text{Zero}\quad\text{Bound}\quad\text{Clitic}\quad\text{Weak}}_{\textit{reduced}}\qquad\overbrace{\text{Free}}^{\textit{nonreduced}}$$

[2]—idealizing away from gradience for the sake of the argument (cf. Cohn 1993).

(3) **Asymmetric crosslinguistic distribution of reduced pronominals:**
"… no language lacks free forms while some languages may lack bound forms …" (Carstairs-McCarthy 1992: 165–6)

| Languages | Free (any relation) | Reduced (any relation) |
|---|---|---|
| Navajo, Chichewâ, Irish: | x | x |
| English, Lezgian, …: | x | – |
| ? | – | x |

(4) **Positional neutralization of the reduced/free contrast:**
Reduced pronominals occur most frequently with subjects or subjects and objects ('core relations') and less frequently with oblique ('non-core') argument types (Moravcsik 1974, Givón 1976, Foley 1998).

| | Free pronouns | Reduced pronouns |
|---|---|---|
| Core relations: | x | x |
| Non-Core relations: | x | – |

(5) **Allotactic distribution of reduced/free pronouns:**
'Obligatory pronoun reduction' occurs in some languages (sometimes in certain verbal moods, for certain person/number combinations): Southwestern Ojibwe (Schwartz and Dunnigan 1986), Warumungu (Hale 1973, Simpson to appear), Chamorro (Chung 1998).

| | Free pronouns | Reduced pronouns |
|---|---|---|
| Core relations: | – | x |
| Non-Core relations: | x | – |

# 3 Representational basis

**Assumption:** what universally characterizes a pronoun are its referential role and functions, not its syntactic category (Bresnan 1997, 1998a)[3]

**Examples:**

- Indirect object clitic copies in Spanish: not pronominal in content, but markers of grammatical agreement (Suñer 1988, Andrews 1990) occurring with every kind of indirect object, including negative indefinites, interrogatives, etc.
- An obligatory subject agreement prefix in Setawana having pronominal content (Demuth and Johnson 1989)
- Deictics recruited as anaphoric pronouns in many languages (Greenberg 1986: xix)

[3]—Assumed in functional syntax (e.g. Givón 1976, 1983, 1984, 1990, 1995, Nichols 1986, Van Valin 1996), lexical functional grammar (e.g. Mohanan 1982, Simpson 1983, 1991, Kameyama 1985, Bresnan and Mchombo 1986, 1987, Andrews 1990, Austin and Bresnan 1996, Bresnan 1995, forthcoming), some Optimality Theoretic syntax (Grimshaw and Samek-Lodovici 1995, Samek-Lodovici 1996, Bresnan 1997a,b), and some work in the Minimalist Program (Everett 1996).

- Pronouns derived from nominals, as in Spanish *Vuestra Merced* and Portuguese *Vossa Merce* ('Your honour'), which became *Usted* and *Voce(s)* respectively (Mühlhäusler and Harré 1990: 136–7)

- "a generic pronominal root (usually invariant across all person-number categories, and often etymologically a form of the verb 'be' or a noun such as 'body' or 'self') with nominal or verbal affixes distinguishing the different number categories" (Nichols and Peterson 1996: 345–6)

(6) **Crosslinguistic properties of personal pronouns:**[4]

PRO — variable referentiality, lack of descriptive content

TOP — topic-anaphoricity (Givón 1976, 1983, 1984, 1990: 916ff)

AGR — classification by person, number, gender (Givón 1984: 354–5)

(7) **Language-independent representation of pronominal content by feature-structures:**

$$\begin{bmatrix} \text{TOP} \\ \text{PRO} \\ \text{AGR} \end{bmatrix} \begin{bmatrix} \text{PRO} \\ \text{AGR} \end{bmatrix} \begin{bmatrix} \text{TOP} \\ \text{PRO} \end{bmatrix} \dots$$

(8) PRO: $\begin{bmatrix} \text{PRED} & \text{`PRO'} \end{bmatrix}$

AGR: $\begin{bmatrix} \text{PERS} & \text{I} \\ \text{NUM} & \text{SG} \end{bmatrix}$, etc.

TOP: $\begin{bmatrix} \text{NEW} & - \end{bmatrix}$ (Choi 1996)

Not all pronominals need have all features.

Smolensky 1997 (this workshop). Phonological space is sparsely populated with meanings; hence nonmeaningful features are constitutive of unit identity. Syntactic space is densely populated with meanings; hence meaning can be constitutive of identity with few morphosyntactic features. Here, [PRO] represents the core personal pronominal meaning(s), and specifications for all possible pronominal features is not required to successfully constitute pronominality.

**A difference between phonological segments and morphosyntactic units: vagueness (featurally indeterminate outputs):**

- In Dutch [t] may neutralize a voicing contrast, but it must still have a determinate specification for voicing to be pronounced: [−VOI, −SON].

- In English 'they' may neutralize a gender contrast (cf. 'he', 'she'), but it need not have a determinate gender [± FEM] to be a viable pronoun.

[4]Note. Social level or distance is also important: Javanese (Geertz 1960: 248ff), Balinese (Arka 1998), Thai, Burmese, and Vietnamese (Cooke 1968). Mühlhäusler and Harré (1990: 64) take the major pronominal contrasts to be (i) " 'person' and the features of participant roles" and (ii) "distance and proximity (obviative and proximative) both spatial and social".

(9) **Representation of pronominals as form/content pairings:**

$$\text{Zero:}\quad < \emptyset, \left[\begin{array}{l}\textsc{pro}\\ \textsc{top}\end{array}\right] > \qquad\qquad \text{Bound:}\quad < \mathit{af}, \left[\begin{array}{l}\textsc{top}\\ \textsc{pro}\\ \textsc{agr}\end{array}\right] >$$

$$\text{Free:}\quad < \mathrm{X}^0, \left[\begin{array}{l}\textsc{pro}\\ \textsc{agr}\end{array}\right] > \qquad\qquad \text{etc.}$$

(10) **OT-LFG: pronominal markedness theory** (Bresnan 1997a, 1998a,b):

$$\begin{array}{lll}
\textsc{input} & \textsc{candidates} & \textsc{output} \\
 & < \emptyset, \left[\begin{array}{l}\textsc{top}\\ \textsc{pro}\end{array}\right] > & \\
\left[\begin{array}{l}\textsc{pro}\\ \textsc{top}\end{array}\right] & < \mathit{af}, \left[\begin{array}{l}\textsc{top}\\ \textsc{pro}\\ \textsc{agr}\end{array}\right] > & < \mathit{af}, \left[\begin{array}{l}\textsc{top}\\ \textsc{pro}\\ \textsc{agr}\end{array}\right] > \\
 & < \mathrm{X}^0, \left[\begin{array}{l}\textsc{pro}\\ \textsc{agr}\end{array}\right] > & \\
 & \vdots &
\end{array}$$

Note: Output f-structures are homogeneous with input f-structures; hence, there is no pernicious underspecification (Steriade 1995).

# 4 Markedness constraints

"The relation between pronominal form and pronominal content is not arbitrary, like the Saussurean sign: no language has Free pronouns devoid of any person/number/gender distinctions, while many languages have Zero pronouns with just this property. No language has Zero, Bound, or Clitic pronouns used only for emphasis or focus, while many languages have Free pronouns with just these functions." (Bresnan 1998a)

**Functions of pronominal forms:**

(11) a. Overt ⇔ AGR: Pronominals are inherently specified for person/number/gender contrasts if and only if they are overt.

b. Reduced ⇔ TOP: Pronominals are reduced if and only if they are specialized for topic anaphoricity.

(11a): Bresnan 1998a; Austin and Bresnan 1996. Distinguish zero pronouns from pronominal inflections (Givón 1976; Simpson 1983, 1991; Jelinek 1984, 1988, 1990, 1995; Bresnan and

Mchombo 1986, 1987; Sandoval and Jelinek 1989; Demuth and Johnson 1989; Andrews 1990; Speas 1990; Willie (1990); Sadock 1991; Uyechi 1991; Nordlinger 1997; Jelinek and Demers 1994; Bresnan 1996, forthcoming; Börjars, Chapman, and Vincent 1997; Toivonen 1996, 1997; Everett 1996; Speas 1997; inter alia)

(11b): Givón 1976, 1984, 1990: 917; Haiman 1985: 150, 167, 194, 232–2; Van Valin 1996; Kameyama 1985; Grimshaw and Samek-Lodovici 1995; Samek-Lodovici 1996; Lambrecht and Lemoine 1996; Bresnan and Mchombo 1986, 1987; Lambrecht 1981; Cardinaletti 1994; Cardinaletti and Stark 1996; inter alia.)

(12) One example: discourse topics in Chicheŵa (Bresnan and Mchombo 1987: 768):

(a) *Fîsi anadyá ḿkângo. Á-tá-ú-dya, anapítá ku San Francîsco.*
hyena ate lion(3) he-serial-it(3)-eat he-went to S.F.
'The hyena ate the lion. Having eaten it, he went to S.F.'

(b) *Fîsi anadyá ḿkângo. Á-tá-dyá íwo anapítá ku San Francísco.*
hyena ate lion(3) he-serial-eat it(3) he-went to S.F.
'The hyena ate the lion. Having eaten it (something other than the lion), he went to S.F.'

(13) **Syntactic markedness of reduced pronominals**:
$*\text{Red}$
$[\textsc{pro}]$

**Functional motivation:** In syntax, reduced pronouns are structurally marked, in that they impose difficulties for semantic recoverability (iconicity), and involve more complexity in the form-function mapping (avoid allotaxy) (Haiman 1985).

Instances of (13): (= Struct)

(14) (Haiman 1985, Bresnan 1998a,b, Vincent 1998)

$$\underbrace{\begin{matrix} *\emptyset & *af \\ [\textsc{pro}] & [\textsc{pro}] \end{matrix}}_{\textit{Iconicity}} \quad \underbrace{\begin{matrix} *\textsc{cl} & *\text{Weak} \\ [\textsc{pro}] & [\textsc{pro}] \end{matrix}}_{\textit{Avoid Allotaxy}}$$

Markedness is an inherently asymmetrical relation. Markedness constraints $\mathcal{M}$ lack specific antagonist constraints $\neg\mathcal{M}$ (Jakobson 1932, Prince 1997).

(15) **Faithfulness constraints:** (= Faith)
Ident-IO(top), Ident-IO(pro), Ident-IO(agr)

Faithfulness constraints require that features of the input content be preserved in the output expression. They thus serve the communicative function of expressing contrasts in content, protecting content against the eroding effects of markedness constraints on forms.

If STRUCT ≫ FAITH, violations of structural markedness constraints are worse than violations of faithfulness constraints. Hence, being a structurally marked form will be worse than failing to preserve contrasts. In order to minimize violations, the marked forms will be avoided in favor of unmarked forms, regardless of the input (content).

(16) **Ranking yielding only the free pronoun:**

| | Input [PRO,TOP,AGR] | STRUCT | FAITH |
|---|---|---|---|
| | Zero: [PRO, TOP] | *! | * |
| | Bound: [PRO,TOP,AGR] | *! | |
| ☞ | Free: [PRO, AGR] | | * |

STRUCT ≫ FAITH is thought to characterize the initial state of the language learner (Prince 1993, Smolensky 1996a; cf. Hale and Reiss 1997), and it has been hypothesized to be the state toward which the process of pidginization converges (Bresnan 1998b).

If FAITH ≫ some member $\mathcal{M}$ of STRUCT, then failing to preserve contrast is worse than violating $\mathcal{M}$. Hence, the marked form will be utilized to express contrast, and unmarked forms will be used elsewhere.

(17) **Ranking yielding a bound pronominal:**

| | Input [PRO,TOP,AGR] | . . . *ZERO | FAITH | *BOUND |
|---|---|---|---|---|
| | Zero: [PRO, TOP] | *! | * | |
| ☞ | Bound: [PRO, TOP, AGR] | | | * |
| | Free: [PRO, AGR] | | *! | |

(18) **The unmarked pronoun under the same ranking:**

| | Input [PRO,AGR] | . . . *ZERO | FAITH | *BOUND |
|---|---|---|---|---|
| | Zero: [PRO, TOP] | *! | ** | |
| | Bound: [PRO, TOP, AGR] | | *! | * |
| ☞ | Free: [PRO, AGR] | | | |

Because languages differ systematically only in their constraint rankings, by "Richness of the Base" (Prince and Smolensky 1993, Smolensky 1996a), this (partial) markedness theory predicts the asymmetrical distribution of reduced pronominals in (3).

# 5 Positional markedness

(19) **Relational hierarchy of nominal dependents of verbs:**

$$\underbrace{\text{Subject} \quad \text{Objects}}_{\textit{Core}} \quad \overbrace{\text{Obliques}}^{\textit{non-Core}}$$

**Markedness of non-Core dependents:** All languages have Core arguments of verbs; some languages avoid non-Core nominal dependents of verbs. For example, serializing languages may use multiple verbs, each taking core arguments, to express the more peripheral participants that are expressed by oblique nominals in other languages (Durie 1997): e.g. Kalam, spoken in the New Guinea Highlands (Pawley 1993: 101, 121ff).

Kalam, New Guinea Highlands (Pawley 1993: 121–2):

(20) a. English: The man threw a stick over the fence into the garden.

b. Kalam:

| | | | | |
|---|---|---|---|---|
| *b* | *mon-day* | *d* | *yok-e-k,* | *waty at* |
| man | stick-piece | hold | displace-DS.PRIOR-3SG | fence top |

| | | |
|---|---|---|
| *am-b,* | *wog-mgan* | *yow-p* |
| go-PERF.3SG | garden-in | fall-PERF.3SG |

Literally: 'The man took the stick and threw it, it went over the fence, it fell in the garden.'

(21) a. English: I'm building the house for you.

b. Kalam:

| | | | | |
|---|---|---|---|---|
| *kotp* | *g-y* | *np* | *ñ-ng* | *g-p-yn* |
| house | make-SS.PRIOR | you | give-SS.FUTURE | do-PRES-1SG |

Literally: 'Having built the house, I'm going to give you (it).'

Kobon (Davies 1981), in the Kalam family, has no morphological case[5] and only one or two adverbial elements (e.g. comitative 'with') which may optionally take an argument. Instrumentals and directionals are expressed as complements of verbs. Niger-Kongo languages are also caseless, have very few prepositions, and some Niger-Kongo languages may lack prepositions altogether, according to Welmers (1973: 453).

(22) **The positional markedness of reduced pronominals in non-Core relations:** *RED/OBL

**Functional motivation:** More contrasts occur in prominent, salient positions, because recoverability of the contrast is perceptually or cognitively enhanced (Moravscik and Wirth 1986).

$*\text{RED/OBL} = *\text{OBL} \;\&\; \overset{*\,\text{Red}}{[\text{PRO}]}$ (local conjunction: Smolensky 1993)

(23) a. *ZERO/OBL: Japanese, Malayalam (Mohanan 1983)

b. *CLITIC/OBL: Olang Tirolese (Cardinaletti and Starke 1996), Czech

c. *BND/OBL: Chicheŵa (Bresnan and Mchombo 1987), Warlpiri (Simpson 1991)

[5]Indirect object pronouns have a distinct form.

**Prediction:** When positional markedness constraints (here *RED/OBL) dominate faithfulness contraints, contrasts (even if otherwise preferred in the language) are avoided in the marked positions. This overriding of faithfulness constraints creates an "emergence of the unmarked effect": the unmarked form becomes optimal in the marked position because faithfulness to contrasts is no longer the determining factor. (Bresnan 1997, 1998a,b)

**Free replacing Zero: Japanese**
(Bresnan 1998b: Yukiko Morimoto and Peter Sells, p.c. March 1997)[6]

(24)

| | | | | | | |
|---|---|---|---|---|---|---|
| *sono* | *hon-o* | *yonda* | *kedo* | *watashi-wa* | *??sore-o/∅* | *susume-nai* |
| that | book-ACC | read.PAST | but | I-TOP | (it) | recommend-NEG |

'I read that book but I wouldn't recommend it.'

(25)

| | | | | | | |
|---|---|---|---|---|---|---|
| *sono* | *hon-o* | *yonda* | *kedo* | *sore-ni/*∅* | *tuite-wa* | *hanasitaku nai* |
| that | book-ACC | read.PAST | but | (that-dat) | about-TOP | talk.want NEG |

'I read that book but I don't want to talk about it.'

(26) **Emergence of the unmarked pronoun in Japanese:**

| | Input [ABOUT< $x$ >, [PRO,TOP]$_x$] | *ZERO/OBL | ... *BOUND | FAITH | *ZERO |
|---|---|---|---|---|---|
| | Zero tuite: [...[PRO, TOP]] | *! | | | * |
| | Bound+tuite: [...[PRO, TOP, AGR]] | | *! | * | |
| ☞ | Free tuite: [...[PRO, AGR]] | | | ** | |

**Free replacing Bound: Chichewâ**
(Bresnan and Mchombo 1987: 769; Bresnan 1997, 1998a)

(27) a. *mkángó uwu fîsi a-ná-ú-dy-a.*
lion(3) this hyena SM-past-OM(3)-eat-indic
'This lion, the hyena ate it.'

b.?* *mkángó uwu fîsi a-ná-dy-á ǐwo*
lion(3) this hyena SM-past-eat-indic it(3)
'This lion, the hyena ate it.'

(28) a. kwá íyo
to him (class 3)

b. *kwǎyo < kwa + ǐyo
to+him (cl 3) to him (cl 3)

(29) *mfúmú iyi ndi-ká-kú-neněz-a kwá íyo*
chief(3) this I-go-you-tell.on-indic to him(3)
'This chief, I'm going to tell on you to him.'

[6] Note: Japanese attaches constraints of social level to its pronominal system; use of an overt pronoun to designate a person implies social familiarity and is therefore avoided in many situations (Peter Sells and Yukiko Morimoto, p.c. March 1997). For this reason, an inanimate overt pronoun is used in (24)–(25).

(30) **Emergence of the unmarked pronoun in Chichewa:**

| | Input [TO< $x$ >, [PRO,TOP]$_x$] | *BND/OBL | ... *ZERO | FAITH | *BOUND |
|---|---|---|---|---|---|
| | kwá Zero [... [PRO,TOP]] | | *! | | |
| | kwá+Bound [... [PRO,TOP,AGR]] | *! | | * | * |
| ☞ | kwá Free [... [PRO,AGR]] | | | ** | |

**Free replacing Clitic: Czech**
(Petr Sgall, p.c., November 10, 1998)

(31) a. *Vidím tě.*
see-I CL:you
'I see you.'

b. *Tebe vidím.*
you see-I
'I see YOU (contrastive).'

(32) a. **Dívám se na tě.*
look-I REFL at CL:you
'I look at you.'

b. **Na tě se vidím.*
at CL:you REFL look-I
'I look at you.'

(33) a. *Dívám se na tebe.*
look-I REFL at you
'I look at you.' (not contrastive)

b. *Na tebe se dívám.*
at CL:you look-I
'I look at YOU.' (contrastive)

(34) **Emergence of the unmarked pronoun in Czech:**

| | Input [AT< $x$ >, [PRO,TOP]$_x$] | *CLITIC/OBL | ... *BOUND | FAITH | *CLITIC |
|---|---|---|---|---|---|
| | na Zero: [... [PRO, TOP]] | *! | | | * |
| | na+Bound: [... [PRO, TOP, AGR]] | | *! | * | |
| ☞ | na Free: [... [PRO, AGR]] | | | ** | |

## Factorial typology

(35) a. *RED/OBL ≫ FAITH, *RED: positional neutralization.
Occurs in: Japanese [Zero], Chicheŵa [Bound], Czech [Clitic]

b. FAITH ≫ *RED/OBL, *RED: full contrast.
Occurs in: Macushi (Carib) [Bound], Godié (Kru) [Clitic and Weak], Sanuma (Yanomami) [Weak]

c. *RED ≫ FAITH: no contrast.
Occurs in: English, Lezgian, . . .

Macushi (Abbott 1991: 24, 63–64, 99ff): There are both free personal pronouns and affixes serving the same syntactic functions of subject, object, postpositional object, and possessor. The free pronouns are used to establish a new topic or for giving emphasis, while the affixal pronouns are the normal anaphoric means of referring to entities across clause or sentence boundaries. The affixal pronominal does not cooccur with the free pronoun or with full NPs.

(36) a. *mîrîrî koneka-'pî mîîkîrî-ya*
that make-PAST 3:PRO-ERG
'He made that.'

b. *i-koneka-'pî-i-ya*
3-make-PAST-3-ERG
'He made it.'

(37) a. *asi'-kî ta-'pî-i-ya i-pî'*
dome-IMP say-PAST-3-ERG 3-to
' "Come," he said to him.'

b. *ta-'pî-u-ya îîkîrî pî', penane m-aipî-i*
say-PAST-1-ERG 3-PRO to tomorrow FUT:IMP-comp-IMP
'I said to him, "Come tomorrow." '

This derives the asymmetry noted in (4):

| | Free pronouns | Reduced pronouns |
|---|---|---|
| Core relations: | x | x |
| Non-Core relations: | x | – |

A hypothetical language predicted not to occur:

(38) a. A contrast of Free and Reduced pronominals in Non-Core relations: 'at him' ∼ 'at-m', 'to her' ∼ 'to-r', 'without them' ∼ 'without-m'

b. but no contrast of Free and Reduced pronominals elsewhere: 'fit him' (*'fit-m'), 'shoe her' (*'shoe-r'), 'clout them' (*'clout-m')

# 6 Obligatory pronoun reduction

Reduced pronominals are syntactically marked for recoverability reasons (as shown above), but they are preferred for economy reasons: Haiman (1985a: 150, 167, 194, 232–2), citing Zipf's law (1935), argues that the correlation between reduced form and topicality has an economy motivation, to minimize effort by reducing expression of frequent, familiar, predictable referents. The positive markedness constraint PERS-TOP captures this preference for reduced pronouns by requiring persons to be topical in argument pronominals:

(39) PERS-TOP/ARG: person [PERS] must be topical [TOP] in argument pronominals.

Given that reduced expression is the formal mark of the category of topicality in pronominals (11), this constraint can cause avoidance of Free pronouns as argument expressions of persons, and like obligatory rounding with back vowels, eliminate a potential contrast.

**Interaction with RED/OBL positional markedness:**

(40) PERS-TOP/ARG ≫ *RED/OBL ≫ FAITH, *RED: 'Obligatory pronoun reduction' in arguments: Southwestern Ojibwe (Algonquian, Minnesota), Warumungu (Pama-Nyungan, Australia)

Free pronouns in Southwestern Ojibwe have a very restricted distribution: as initially focused elements, appositions, and in coordinations; bound pronouns are used elsewhere (Schwartz and Dunnigan 1986).

| Ojibwe | Free pronouns | Reduced pronouns |
|---|---|---|
| Arguments: | – | x |
| Non-arguments: | x | – |

(41) *RED/OBL ≫ PERS-TOP/ARG ≫ FAITH, *RED: 'Obligatory pronoun reduction' in Core arguments; Free elsewhere: Chamorro (Austronesian, Guam), Lummi? (Salish, NW American Coast)

Chamorro (Chung 1998: 28):

(42) a. weak pronouns: intransitive subjects, direct objects

b. strong pronouns: obliques, prepositional objects, in topic and focus positions, and as conjuncts within coordinated NPs (even subject or object NPs)

c. bound pronominals [= Chung's 'null' pronouns corresponding to person inflections for verbal arguments and possessors]

d. zero pronouns [= Chung's 'null' pronouns corresponding to no person inflections]

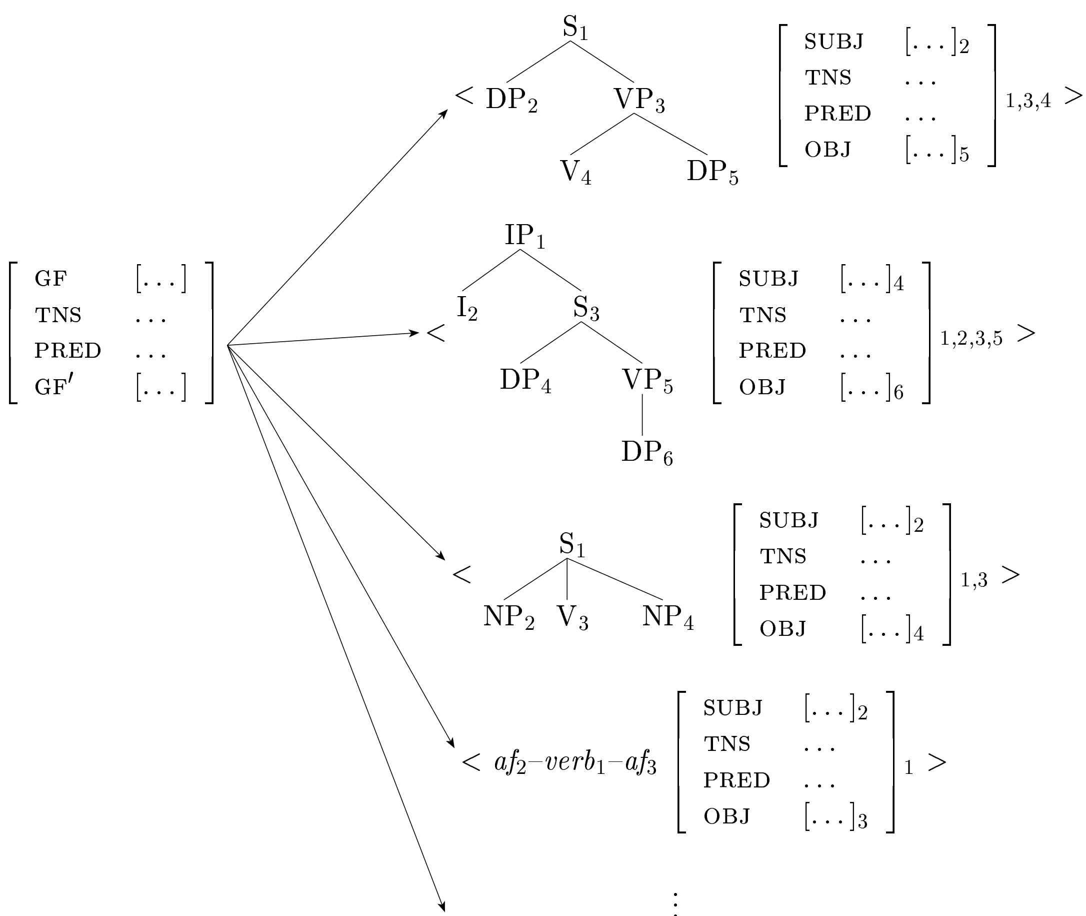
This derives the case of allotactic distribution of reduced/free pronouns (5):

| Chamorro | Free pronouns | Reduced pronouns |
|---|---|---|
| Core relations: | – | x |
| Non-Core relations: | x | – |

# 7 Is syntax really no different?

**Binding?** (Bresnan 1997a,b, 1998c, Choi 1996, 1997)

(43) INPUT CANDIDATES

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