



(3) **Underspecification and selection**

- a. Not all arguments need to be specified for every  $\varphi$ -feature that is active in a language. For instance, third person arguments may be specified for number only. Such arguments are not  $\varphi$ -incomplete in the Chomsky's sense. Rather, what counts as a complete  $\varphi$ -set is smaller for some arguments than for others.
- b. Selectional restrictions (such as the capacity to be affected for applicatives, or being volitional for agents) are encoded via  $\varphi$ -features. That is, selectional restrictions of heads that introduce arguments are imposed on the specifier as requirements that the specifier be specified for a given (set of)  $\varphi$ -feature(s).

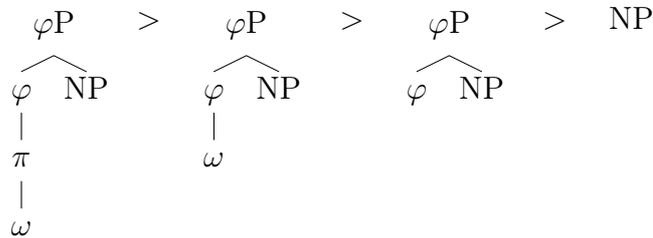
(4) **Subtext**

- a. Hierarchies (like geometries) are things to be explained. They are not explanations. (Note: even if hierarchies can be rationalized on functional grounds, this still does not explain their syntactic function. If they have syntactic effects, then these must be expressible and derivable via the entities, *viz.*, features, in terms of which syntax operates.)
- b. Ergative/accusative marking do not constitute crosslinguistically homogeneous phenomena. (The varieties analyzed here are associated with  $\varphi$ -features. Elsewhere, it has been observed that ergativity in some languages is on a morphological par with instrumentals and other oblique categories, e.g., Dixon 1980, and that accusative marking is semantically contentful and relates to aspect and telicity, e.g., Kratzer 2004.)
- c. Syntax has to make do with fewer features than classical descriptive categories would lead one to expect. Features are recycled for distinct uses compatible the feature's semantics. (Particular case relevant here:  $\varphi$ -features are used both for selection by argument-licensing heads, and for the semantics of pronominal categories.)

- (5) **Silverstein's terminology**
- a. *simplex* ~ *complex* The split is defined only with respect to person ~ with respect to person and number.
  - b. *local* ~ *global* Case marking depends on the inherent  $\varphi$ -specification of each argument individually ~ both arguments jointly.
  - c. *ternary* ~ *binary* Three distinct points in the hierarchical exhibit the contrasts AS/O, A/S/O, A/SO ~ if one of these is absent, the system is binary.
  - d.  $2-2 \sim 2-3 \sim 2-3-2 \sim 3-2$ 
    - (i) 2-2 = AS/O at the top of the hierarchy, A/SO at the bottom
    - (ii) 2-3 = AS/O at the top, A/S/O at the bottom
    - (iii) 2-3-2 = AS/O at the top, A/S/O in the middle, A/SO at the bottom
    - (iv) 3-2 = A/S/O at the top, A/SO at the bottom
- (6) **Primary concern, secondary concern, non-concern**
- a. Primary: local systems, be they *simplex* ~ *complex*, *ternary* ~ *binary*,  $2-2 \sim 2-3 \sim \dots$
  - b. Secondary: global systems will receive a sketch of an analysis, tying them in to the Person-Case Constraint.
  - c. Non: Comrie's attempt to extend Silverstein Hierarchies from case marking on nominals to presence/absence of agreement on verbs cannot be explained on the present lines. That may be a good kind of failure: Bickel argues that this extension is not typologically justified.
  - d. Note: Simplex systems are surprising poorly attested (at least in Silverstein and Dixon's work). Maybe this should concern us. On the other hand, maybe once a language lets underspecification loose in the domain of pronouns, it is equally apt to affect person and number, yielding complex systems.

- (7) **Inherent  $\varphi$ -specification of arguments**
- a. Déchaine and Wiltschko 2003: What we taxonomically call 'pronouns' can be pro-DPs, pro- $\varphi$ Ps or pro-NPs (assuming the functional sequence [D [ $\varphi$  [N]]]). Not enough structural distinctions to capture the Silverstein Hierarchy...

- b. Local pronouns (first/second person) differ from third person pronouns: the former must be specified for whatever the language's person features are (some subset of  $\{[\pm\text{participant}], [\pm\text{author}], [\text{hearer}]\}$ ); the latter need be specified only for number. Therefore,  $[\varphi-\pi-\omega]$  and  $[\varphi-\omega]$  are both legitimate  $\varphi$ -sets.
- c. Person ( $\pi$ ) and number ( $\omega$ ) features are implemented semantically as things that operate on lattices. That lattice must come from somewhere. Assumption: the lattice is the denotation of the root  $\varphi$ -node.
- d. This induces a four-grade hierarchy:



(8) **4  $\neq$  6**

- a. Grimshaw 2005: Identical semantic structures do not always receive the identical lexical representation in all languages.
- b. E.g.: Proper names (in contrast, say, to animates) are treated bear root  $\varphi$ -specifications in some languages and not in others. In such a language, proper names are differentiated from animates and other nouns (which are lumped together). Alternatively, a language might classify both proper names and animates as bearing root  $\varphi$ -nodes, thus differentiating them from common nouns.
- c. It will become clear below that this conflation is permissible so long as no language has ergative marking for animates and common nouns, and accusative marking for proper names and animates. Silverstein, Dixon, Bickel lead me to think this is so.

(9) **Selection by v**

- a. Agents are volitional controllers of events. (Causers are initiators of events, possibly with volition, possibly without.)

- b. The speaker is the benchmark for agenthood (volition+control):  
*Put very roughly, a speaker will think in terms of doing things to other people to much greater extent than in terms of things being done to him. In the speaker's view of the world, as it impinges on him and as he describes it in his language, he will be the quintessential agent. ... That is, a first person pronoun is more likely than any other NP constituent to be in A rather than O function.* (Dixon 1994:84–85)
- c. Consequently, the specifier of v must bear the full complement of features for which the author is specified (modulo some complications: [ $\pm$ author] and [ $\pm$ participant]).

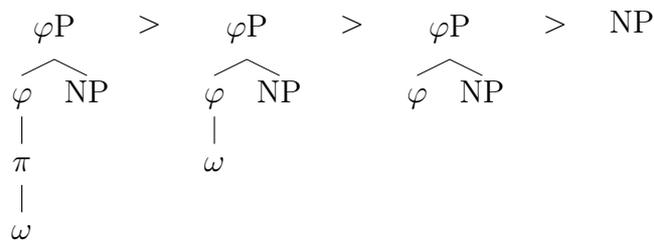
(10) **Selection by V**

- a. Selectional restrictions on objects are scant (cf, Levin on -ee).  
 b. Merely a categorial (cheerleader?) demand: Give me an N.

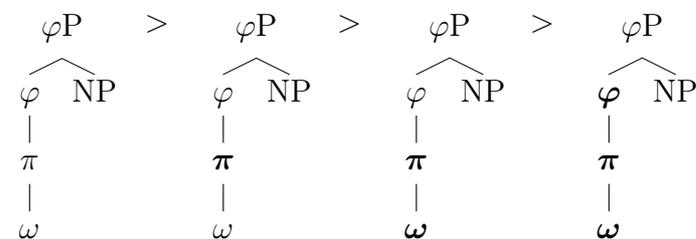
(11) **Important consequence**

- a. If the inherent  $\varphi$ -specification of v's argument is humble, it will inherit.  
 b. If the inherit  $\varphi$ -specification of V's argument is great, it will bequeath.

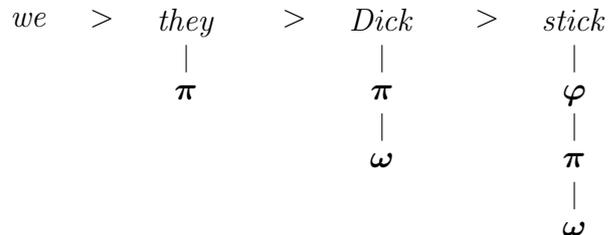
(12) **Sketch** Selection by v transforms:



into:



where the bold features are those added to the inherent specification. Suppose that these represent *we*, *they*, *Dick*, *stick*. When we spell these out all but the first leave feature residues:



If this language happens to have a means of pronouncing residual  $\boldsymbol{\pi}$ , then ‘ergative’ marking will emerge on third person pronouns, like *they*, proper names, like *Dick*, and common nouns, like *stick*. If it has such means only for  $\boldsymbol{\omega}$ , then ‘ergative’ marking will be confined to proper names and common nouns.

Conversely, if V expects only N but receives any of the larger structures, this unexpected featural excess may create a residue that is subject to vocabulary insertion.

(13) **Dyirbal**

a. This is ‘Dyirbal Light’ following Dixon. He cites Kuku-Yalanji and Ngiyambaa as languages that display the pattern.

	1/2 pron	> 3 pron	> proper	> other
A	$\emptyset$	<i>-ŋgu</i>	<i>-ŋgu</i>	<i>-ŋgu</i>
O	<i>-na</i>	$\emptyset$	$\emptyset$	$\emptyset$

b. *-ŋgu*  $\Leftrightarrow$  [–participant] / v \_\_\_\_  
*-na*  $\Leftrightarrow$  [+participant] / V \_\_\_\_

(14) **Cashinawa**

a. The case endings can be sensitive to just how much  $\boldsymbol{\varphi}$ -structure is added.  
b. Moreover, accusative marking need not begin exactly where ergative marking ceases.

	1/2 pron > 3 pron > other		
A	∅	-habũ	nasal
O	-a	-haa	∅

- c. -habũ ⇔ [−participant] / v \_\_\_\_  
 nasal ⇔ [−participant φ] / v \_\_\_\_  
 -haa ⇔ [φ ω] / V \_\_\_\_  
 -a ⇔ [φ π ω] / V \_\_\_\_

(15) **Dhirari**

- a. The split depends not only on person, but on number too. Ergative marking does not extend to non-singular local pronouns. It is, however, used for singular local persons (and all hierarchically lower positions).

	1/2DL/PL > 1/2SG > 3 pron > other		
A		ERG	ERG
O	ACC	ACC	ACC

- b. Explanatory idea: underspecification of (semantically unnecessary) number. Redundant features (like redundant categories) need not be inherent.

singular	[+singular −augmented]
dual	[−singular −augmented]
plural	[−singular +augmented]

Note: [+singular] ⊨ [−augmented]

- c. ERG ⇔ [φ −singular] / v \_\_\_\_  
 ACC ⇔ [φ] / V \_\_\_\_

(16) **Outstanding points: I**

- a. The Burzio-Perlmutter Generalization: The mechanism above divorces accusative marking from the transitivity of the verb. This is apparently desirable in cases of fluid S systems. However, in other languages, it is necessary to tie accusative marking to

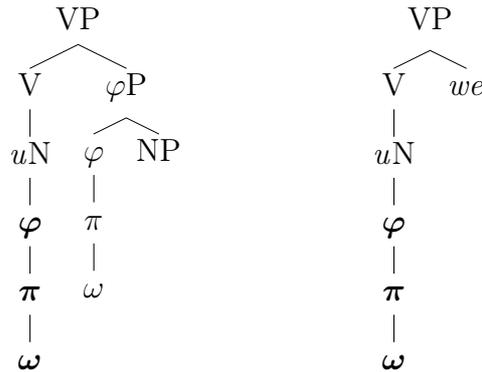
the head responsible for syntactic Case licensing (rather than the thematic licenser). This will impinge on the treatment of (anti)passive constructions.

- b. Nothing forces all parts of the hierarchy to receive either ergative or accusative marking. However, both Silverstein and Dixon observe that the following system is unattested.

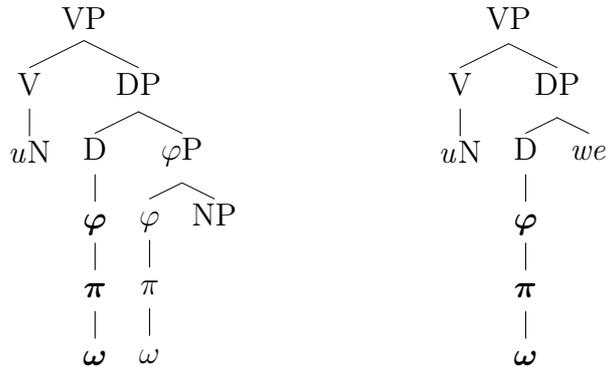
	1/2 pron > 3 pron > proper > human > anim > other			
A	ACC	ACC		
O			ERG	ERG

- (17) **Outstanding points: II** What is the locus of the feature residue for direct objects? (For concreteness, consider *we*.)

- a. Suppose that V bears only [*uN*] but that, when *we* is merged, it inherits a full complement of  $\varphi$ -features (left), which, after vocabulary insertion, leaves a residue (right):



- b. Problem: the residue is in the wrong place. If movement, either of V or *we*, occurs, the residue will follow the verb not the argument. Not what one typically expects of case marking.
- c. Instead, claim that there is a D projection above  $\varphi$ . Now, D on standard Minimalist assumptions, D acts as a conduit for features within the complement of DP to the rest of the structure (D is a phase, yet verbs receive features (person, number, ...) from within the complement of D; this is only possible if the features pass through D). The feature residue is now part of the nominal:



- d. Problem: overapplication. Why does this not now yield special marking on agentive *we*? We can after all change V for v and pronounce both the phi-features under  $\varphi$ P and those on DP. Essentially, we need a restriction on pronouncing copies of the  $\varphi$ -features under  $\varphi^0$  and  $D^0$ . Since these are in the same phase, let us hypothesize that head and tail of a single chain may only receive realization.

---

(18) **Person Case Constraint**

- a. Kiowa and French display a classic strong PCC paradigm.
- b. Kiowa and French both display Case Syncretism (agreement and clitics for local persons do not distinguish direct from indirect object case).

(19) **Selection by Appl**

- a. Applicatives must be capable of being affected (hence the oddness of ?? *We sent the conference the abstract*).
- b. There is no feature  $[\pm\text{affectable}]$  or  $[\pm\text{affected}]$ . The semantic notion of affectedness must be represented syntactically by some means of a different feature with that is semantically near enough. The specifier of Appl be specified for  $[\pm\text{participant}]$ .
- c. Rationale: the speaker and hearer (the  $[\text{+participant}]$  entities) are the benchmark for affectable entities. If a third person entity is to be recognized as affectable, it must be made featurally commensurate with the benchmark, i.e., specified for  $[\pm\text{participant}]$ . (Clearly, its specification will be  $[-\text{participant}]$ —plus whatever features it bears inherently.)

- (20) **Explanation of core data**
- a. PCC: Waste not, want not. The [ $\pm$ participant] feature on Appl can only be used once:
    - (i) For selection of the indirect object. (So, [ $\pm$ participant] cannot be used for Case licensing of the direct object, restricting it to third person.)
    - (ii) For Case licensing of the direct object. (So, the direct object must be local, and it leaves Appl bereft of selectional feature, leading to semantic non-convergence.)
  - b. Case Syncretism. Selection by Appl adds nothing to local arguments: they are inherently specified for [ $\pm$ participant]. It does however alter the specification of third person arguments, from their inherent [ $\varphi$ ]-[ $\omega$ ] to [ $\varphi$ ]-[-participant]-[ $\omega$ ].
- (21)  **$v^*$ ,  $v$ ,  $v^*v$**
- a. A number of researchers (e.g., Harley) have divided argument introduction ( $v^*$ ) from Case licensing of the lower arguments ( $v$ ). What I have referred to above as  $v$  is actually  $v^*$  in this technical sense.
  - b. Suppose that a parameter of crosslinguistic variation is whether argument-introducing  $v^*$  and Case-licensing  $v$  project separately versus jointly (cf, Bobaljik and Jonas' parameter of joint versus separate projection of T and Agr).
  - c. Prediction: inverse-systems. The joint projection of  $v^*v$  would have only one set of  $\varphi$ -features. If squandered on the (in)direct object (for Case licensing), nothing is left for selection of the external argument. This is just like the PCC, but it arises between external arguments and internal arguments.
  - d. Example: Southern Tiwa agreement prefixes ban 3:1/2 (transitives with third person acting on a local person) and 3: $x$ : $y$  (ditransitives / applicativized transitives with third person acting on anyone). If indirect objects are specified for [ $\pm$ participant], then both cases fall under the rubric \*3:[ $\pm$ participant]. This is equivalent to the weak PCC ( $x$ :3:3,  $x$ :1/2:2/1, but \* $x$ :3:1/2).
-

## Selected References

- Adger, David and Daniel Harbour. 2007. Syntax and syncretisms of the Person Case Constraint. *Syntax* 10:2–37.
- Bickel, Balthasar. In press. On the scope of the referential hierarchy in the typology of grammatical relations. In Greville Corbett and Michael Noonan (eds) *Case and Grammatical Relations: Papers in Honor of Bernard Comrie*, Oxford: Oxford University Press.
- Dixon, R.M.W. 1980. *The Languages of Australia*. Cambridge: Cambridge University Press.
- Dixon, R.M.W. 1994. *Ergativity*. Cambridge: Cambridge University Press.
- Grimshaw, J. 2005. Semantic structure and semantic content in lexical representation. In *Words and Structure*, California: CSLI Publications.
- Heck, Fabian and Marc Richards. 2007. A Probe-Goal approach to agreement and incorporation restrictions in Southern Tiwa. In Jochen Trommer and Andreas Opitz (eds) *1-2-many: Linguistische Arbeits Berichte 85*, 205–239. Universität Leipzig.
- Kratzer, Angelika. 2004. Telicity and the Meaning of Objective Case. In Jacqueline Guéron and Jacqueline Lecarme (eds), *The Syntax of Time*, 389–423. Cambridge, MA: MIT Press
- Silverstein, Michael. 1986. Hierarchy of features and ergativity. In Pieter Muysken and Henk van Riemsdijk (eds) *Features and Projections*, 163–232. Dordrecht: Foris. Originally published in R.M.W. Dixon (ed.), 1976, *Grammatical Categories in Australian Languages*, Canberra: Australian Institutes of Aboriginal Studies.
-