Grammatik verbaler Argumente
Argumentkodierung 4: Ein neuer Ansatz

Gereon Müller

Institut für Linguistik
Universität Leipzig

SoSe 2009

www.uni-leipzig.de/∼muellerg

Goal:
A new minimalist analysis of accusative vs. ergative patterns of argument encoding (via case marking or agreement) that meets the criteria postulated before (e.g. no construction-specific rules, no movement, erg=acc, nom=abs, etc.), and that is grounded in Murasugi's (1992) approach. The proposal is based on the observation that indeterminacies may arise in the application of Merge and Agree (see Chomsky (2000, 2001)), given that they both obey an Earliness requirement (see Pesetsky (1989), Pesetsky & Torrego (2001)).

Basic claim:
A principled resolution of one such indeterminacy (on the vP cycle) in one or the other direction yields an accusative or ergative encoding pattern for arguments.

Background Assumptions 1

Syntactic structure is created incrementally, bottom-up, by the elementary operations Merge and Agree, and by Move (which is a special case of Merge: internal vs. external Merge; Chomsky (2005), and which will not play a major role in what follows).

(1) *Two types of features that drive operations*:

a. Structure-building features (edge features, subcategorization features) trigger Merge: [•F•]
(Svenonius (1994), Collins (2003), Sternefeld (2003), Heck (2004))

b. Probe features trigger Agree: [∗F∗]
(Sternefeld (2003))

(2) Merge Condition:
Structure-building features ([•F•]) participate in Merge.

(3) Agree Condition:
Probes ([∗F∗]) participate in Agree.

Background Assumptions 2

(4) The operation Merge:
α can be merged with β, yielding $\{\alpha,\{\alpha,\beta\}\}$, if α bears a structure-building feature [•F•] and F is the label of β.

Background Assumptions 2

(4) The operation Merge:
α can be merged with β, yielding $\{\alpha,\{\alpha,\beta\}\}$, if α bears a structure-building feature [•F•] and F is the label of β.

(5) The operation Agree:
α agrees with β with respect to a feature bundle Γ iff (a), (b), and (c) hold:

a. α bears a probe feature [*F*] in Γ, β bears a matching goal feature [F] in Γ.
b. α m-commands β.
c. There is no δ such that (i) and (ii) hold:
   (i) δ is closer to α than β.
   (ii) δ bears a feature [F] that has not yet participated in Agree.

Background Assumptions 3

Note:

1. (5-b) permits an Agree relation between a head and its specifier, as seems natural (but see, e.g., Chomsky (2004)).
2. (5-c) presupposes a notion of closeness.

(6) Closeness:
δ is closer to α than β if the path from δ to α is shorter than the path from β to α.

(7) Path (Müller (1998, 130); also cf. Pesetsky (1982, 289), Collins (1994, 56)):
The path from X to Y is the set of categories Z such that (a) and (b) hold:

a. Z is reflexively dominated by the minimal XP that dominates both X and Y.
b. Z dominates X or Y.

The length of a path is determined by its cardinality.

Consequences:
(i) The specifier and the complement of a head qualify as equally close to the head.
(ii) The specifier of a head is closer to the head than a category that is further embedded in the complement of the head.

Background Assumptions 4

Further general assumptions (Chomsky (2000, 2001)):

1. Clause structure:
   Basic clause structure has CP, TP, vP, and VP.
2. Numerations:
   Lexical items that are to participate in derivations are selected from the lexicon pre-syntactically, and assembled in a numeration N (or lexical array).
3. Workspace (Frampton & Gutman (1999), Hornstein (2001)):
   The workspace of the derivation comprises items in the numeration and phrases that have been created independently.
4. Merge of argument DPs:
   DP_{int} is merged in VP, DP_{ext} is merged in vP, as a specifier.
5. Argument encoding and functional heads:
   T and v are involved in the structural encoding of primary arguments (i.e., DP_{ext} and DP_{int} arguments for which no inherent/lexical CASE is specified), by bearing features that act as probes and thus trigger Agree operations.

Background Assumptions 5

More specific assumptions about argument encoding:

1. There is one structural argument encoding feature: CASE.
2. CASE can have two values: ext(ernal) and int(ernal) (determined with respect to vP, the predicate domain).
3. [CASE:ext] = nominative/absolutive, [CASE:int] = accusative/ergative (Murasugi (1992)).
4. [CASE] features figure in Agree relations involving T/v and DP, as in (8).

(8) The role of T and v in argument encoding:

a. T bears a probe [*CASE:ext*] that instantiates a matching [CASE:ext] goal on DP.

b. v bears a probe [*CASE:int*] that instantiates a matching [CASE:int] goal on DP.

Case and Agreement

Observation:
Case-marking and agreement-marking both depend on an Agree relation between T/v and DP, and thus qualify as two sides of the same coin.

(9) Argument encoding by case or agreement:

a. Argument encoding proceeds by case-marking if [CASE:α] is morphologically realized on DP.

b. Argument encoding proceeds by agreement-marking if [*CASE:α*] is morphologically realized on T/v.

(Something extra will have to be said about cases where agreement is not case-based, but, e.g., argument type-based (external vs. internal argument).)

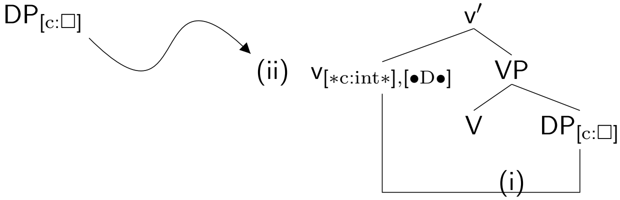
Merge vs. Agree 1

A conspicuous property:
v (unlike T or V) plays a dual role: It triggers Merge of DP_{ext} (by a [•D•] feature), and it also triggers an Agree operation (by its [*CASE:int*] feature). This dual role has far-reaching consequences for the nature of argument encoding.

An indeterminacy:
Consider a simple transitive context, with two arguments DP_{int}, DP_{ext}. Suppose that the derivation has reached a stage Σ where v has been merged with a VP containing DP_{int}, with DP_{ext} waiting to be merged with v in the workspace of the derivation. At this point, an indeterminacy in rule application arises: The next operation could be either Agree(v,DP_{int}) (see (i)) or Merge(DP_{ext},v) (see (ii)). The Agree Condition demands the former operation, and the Merge Condition demands the latter.

Merge vs. Agree 2: The Dilemma

Stage Σ:



An Optimality-Theoretic Solution

Solution:
Conflicts of this type are real and must be resolved by giving one constraint (the Merge Condition or the Agree Condition) priority over the other in the case of conflict, i.e., by ranking the requirements.

Note:
This is an instance of optimization in syntax, with minimal violability of the lower-ranked requirement; see Prince & Smolensky (2004). However, the optimization involved here is extremely local (competing candidates are derivational steps), which avoids the complexity problems incurred by standard optimization procedures; see Heck & Müller (2000, 2006), Fischer (2004).

An Optimality-Theoretic Solution

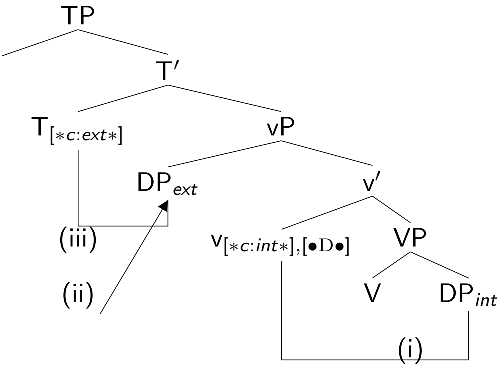
Solution:
Conflicts of this type are real and must be resolved by giving one constraint (the Merge Condition or the Agree Condition) priority over the other in the case of conflict, i.e., by ranking the requirements.

Note:
This is an instance of optimization in syntax, with minimal violability of the lower-ranked requirement; see Prince & Smolensky (2004). However, the optimization involved here is extremely local (competing candidates are derivational steps), which avoids the complexity problems incurred by standard optimization procedures; see Heck & Müller (2000, 2006), Fischer (2004).

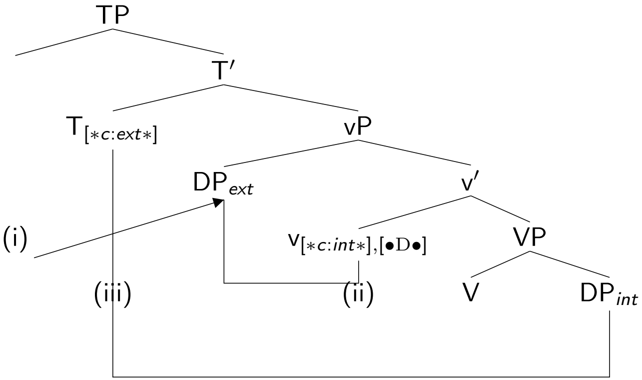
(11) *Rankings*:

a. Accusative patterns: Agree Condition $\gg$ Merge Condition
b. Ergative patterns: Merge Condition $\gg$ Agree Condition

(12) Agree before Merge: accusative



(13) Merge before Agree: ergative



The Order of Elementary Operations 3

Remarks on the accusative pattern:

1. Mechanics:
   Given Earliness(Agree) $\gg$ Earliness(Merge), Agree(v,DP$_{int}$) applies first (step (i)) at stage Σ. Since v is marked [*CASE:int*], this ensures a [CASE:int] specification on DP$_{int}$. DP$_{ext}$ is merged in Specv in the next step (step (ii)). The derivation continues, merging T and vP, and then carrying out Agree(T,DP$_{ext}$), which instantiates [CASE:ext] on DP$_{ext}$ (step (iii)).
2. Accusative, nominative:
   The morphological realization of an internal encoding feature [(*)CASE:int(*)] with Agree(v,DP$_{int}$) (by case or agreement) can be called accusative; the morphological realization of an external encoding feature [(*)CASE:ext(*)] with Agree(T,DP$_{ext}$) can be called nominative.
3. Language types derived:
   This accounts for argument encoding in transitive contexts in accusative languages like Icelandic and Navajo: The internal argument is marked by the internal CASE, the external argument is marked by the external CASE.

The Order of Elementary Operations 4

Remarks on the ergative pattern:

1. Mechanics:
   Given Earliness(Merge) $\gg$ Earliness(Agree), Merge(DP$_{ext}$,v) must apply first (step (i)) at stage Σ. DP$_{ext}$ is now closer to v than DP$_{int}$, and given that Agree relations are subject to a minimality requirement and require only m-command by the probe, the next operation will have to be Agree(v,DP$_{ext}$), in a specifier/head configuration (step (ii)). This instantiates [CASE:int] on DP$_{ext}$. Subsequently, T is merged, and Agree(T,DP$_{int}$) is carried out (step (iii)), with [CASE:ext] for DP$_{int}$.
2. Ergative, absolutive:
   The morphological realization of an internal encoding feature [(*)CASE:int(*)] with Agree(v,DP$_{ext}$) can be called ergative; the morphological realization of an external encoding feature [(*)CASE:ext(*)] with Agree(T,DP$_{int}$) can be called absolutive.
3. Language types derived:
   This accounts for argument encoding in transitive contexts in ergative languages like Archi and Sierra Popoluca: The internal argument is marked by the external CASE, the external argument is marked by the internal CASE.

Case Feature Specifications in Numerations

Nothing has been said about intransitive contexts so far.

Problem:
Unchecked probes lead to a crash of the derivation; hence, [*$\textsc{case}$:α*] must be absent on either T or v in the derivation if only one DP is present that has a feature [$\textsc{case}$:$\square$]. But on which one?

Case Feature Specifications in Numerations

Nothing has been said about intransitive contexts so far.

Problem:
Unchecked probes lead to a crash of the derivation; hence, [*CASE:α*] must be absent on either T or v in the derivation if only one DP is present that has a feature [CASE:$\square$]. But on which one?

Claim:
Two principled solutions are available. Both rely on a constraint on numerations, viz., (14) (see Heck & Müller (2000), Fischer (2004), Heck (2004) for related constraints; also see Stabler (1996) on 'count invariants').

(14) Feature Balance (holds of numerations):
For every feature [*F:α*], there must be a matching feature [F:$\square$].

The underlying idea is that a derivation that fails to provide a matching goal feature specification for each probe feature specification that it employs is doomed from the start, and should be excluded as soon as possible, i.e., in the numeration.

How to Respect Feature Balance

Consequence:
[*CASE:ext*] on T or [*CASE:int*] on v must be absent if there is only one D with a CASE feature in the numeration.

Assumption:
There are (at least) two ways to respect Feature Balance in numerations underlying intransitive contexts:

1. Preservation of the unmarked [*CASE*] feature.
2. Preservation of the iconic [*CASE*] feature (that matches the argument type in markedness).

Canonical Ergative Argument Encoding 1

Solution 1: Preservation of the unmarked [*CASE*] feature

(15) Unmarked vs. marked CASE features:

a. [(*)CASE:ext(*)] (nominative/absolutive) → unmarked
(typically default CASE in syntax, and segmentally less complex in morphology (often default or zero))

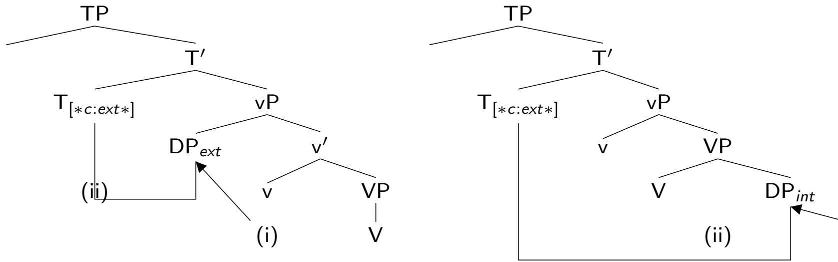
b. [(*)CASE:int(*)] (accusative/ergative) → marked
(typically not default CASE in syntax, and segmentally more complex in morphology)

Consequence:
In intransitive contexts, [*CASE:ext*] on T has to be preserved, and [*CASE:int*] cannot be instantiated on v. Therefore, the sole argument of an intransitive predicate (DP_{ext} or D_{int}) is encoded by [(*)CASE:ext(*)] (nominative/absolutive), after Agree(T,DP_{ext}) or Agree(T,DP_{int}), which captures the situation in the language types discussed so far.

Canonical Ergative Argument Encoding 2

(16)

a. Nominative/absolutive with DP_{ext}-V_i b. Nominative/absolutive with DP_{int}-V_i



Active Argument Encoding 1

Solution 2: Preservation of the iconic [*CASE*] feature

(17) Unmarked vs. marked argument types:

a. DP_{int} → unmarked
(merged within its predicate's projection, not requiring a special 'externalization' operation (Williams (1981)) in argument structure)

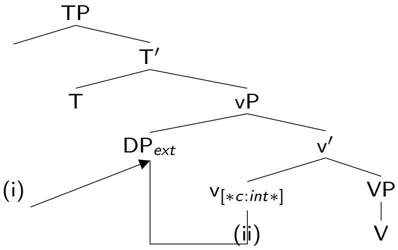
b. DP_{ext} → marked
(not merged within its predicate's projection, requiring a special 'externalization' operation)

Consequence:
(i) A marked feature specification ([*CASE:int*] on v) must show up in the numeration in the presence of a V taking an marked argument (DP_{ext}).
(ii) An unmarked feature specification ([*CASE:ext*] on T) occurs in the presence of a V taking an unmarked argument (DP_{int}).

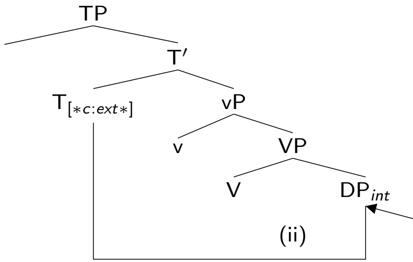
Active Argument Encoding 2

(18)

a. Ergative with DP_{ext}-V_i



b. Absolutive with DP_{int}-V_i



Active Argument Encoding 3

Observation:
This makes it possible to account for active ergative argument encoding patterns in languages like Basque, Georgian, Hindi (with case) and Guaraní (with agreement) without invoking the assumption that unergatives are hidden transitives in these languages (but not in others).

(19) Active ergative case-marking in Basque:

a. Jon-∅ etorri da
Jon-ABS come:PTCP.PRF is:3.SG.INTR
'Jon came.'

b. Jon-ek saltatu du
Jon-ERG jump:PTCP.PRF have:3.SG.TR
'Jon jumped.'

c. Jon-ek ardo-a-∅ ekarri du
Jon-ERG wine-DET-ABS bring:PTCP.PRF have:3.SG.TR
'Jon brought the wine.' (Hualde & Ortiz de Urbina (2003, 364))

Active Argument Encoding 4

(20) Active ergative agreement-marking in Guaraní (Tupí-Guaraní):

a. Še-manuʔa
   1.SG.ABS-remember
   'I remember.'

b. A-ma.apo
   1.SG.ERG-work
   'I work.'

c. Ø-Ai-pete
   3.SG.ABS-1.SG.ERG-hit
   'I hit him.' (Gregores & Suárez (1967))

Anti-Active Patterns

Note:
The present analysis does not per se exclude an 'anti-active' pattern, as in (21). Anti-active marking would arise in an accusative system that preserves the CASE feature specification matching the argument type in markedness in intransitive contexts (rather than the CASE feature specification that is unmarked); it differs from the accusative pattern in (1-a) in encoding DP_{ext} of V_i by accusative. This type of encoding pattern does not seem to occur (see, e.g., Sigurðsson (2004)).

(21)

Anti-active marking

DP_{ext}-V_i	DP_{int}-V_i
DP_{ext}-V_t	DP_{int}-V_t
nom	acc

Possible Solution: Such a system is dysfunctional (Bechert (1979), and Lecture 1).

Active Accusative Systems

Languages: Eastern Pomo (extinct; Hokan, California), Acehnese (Austronesian, Northern Sumatra).
Ref.: Bittner & Hale (1996b).

(22) Intransitive and transitive verbs in Eastern Pomo:

a. Míip míip-al sáaka
he.NOM him-ACC killed
'He killed him.'

b. Míip-al xáa baakúma
him-ACC in the water fell
'He fell in the water (accidentally).'

c. Míip káluhuya
he.NOM went home
'He went home.'

Sketch of an analysis:
There is a third possibility in intransitive contexts (next to preservation of the unmarked, or of the iconic case feature): preservation of the internal case feature for internal arguments, and of the external case feature for external arguments. → Prediction for ergative systems?

Active Accusative Systems

Languages: Eastern Pomo (extinct; Hokan, California), Acehnese (Austronesian, Northern Sumatra).
Ref.: Bittner & Hale (1996b).

(22) Intransitive and transitive verbs in Eastern Pomo:

a. Míip míip-al sáaka
he.NOM him-ACC killed
'He killed him.'

b. Míip-al xáa baakúma
him-ACC in the water fell
'He fell in the water (accidentally).'

c. Míip káluhuya
he.NOM went home
'He went home.'

Sketch of an analysis:
There is a third possibility in intransitive contexts (next to preservation of the unmarked, or of the iconic case feature): preservation of the internal case feature for internal arguments, and of the external case feature for external arguments. → Prediction for ergative systems?

anti-active pattern

An Alternative

There is an alternative solution to the Agree/Merge indeterminacy problem on the vP level; one that does not involve constraint violability and constraint ranking (Lennart Bierkandt, p.c.).

Assumption:

- Subcategorization features that trigger Merge ([•F•]) and probe features that trigger Agree ([*F*]) are ordered on v.
- Only the highest feature on the feature hierarchy is visible for the Agree Condition and the Merge Condition at any given stage of the derivation.
- A probe or subcategorization features disappears (or becomes inert) after having triggered an operation (Merge or Agree).

(23) Ergative/accusative parameter:

a. [*CASE:INT*] > [•D•] on v: accusative encoding pattern
b. [•D•] > [*CASE:INT*] on v: ergative encoding pattern

Independent Evidence

A simple theory of linking (argument structure $\rightsquigarrow$ argument realization):

(24) John$_1$ gave a book$_2$ to Mary$_3$

(25) Hierarchy of subcategorization features on V (follows directly from the Bierwisch/Heim/Kratzer/Wunderlich system in terms of λ prefixation laid out in lecture 1):

$$\begin{array}{lllll} \textsc{Agent} & > & \textsc{Theme} & > & \textsc{Goal} \\ [\bullet D \bullet] & > & [\bullet D \bullet] & > & [\bullet P \bullet] \end{array}$$

Syntactic Ergativity 1

So far, a notion like "subject" has been irrelevant. However, there are operations that may have to refer to such a concept, like reflexivization, raising, control, relativization or topic-chaining (pivot-chaining; Dixon (1994)).

Accusative pattern:
In accusative systems, it is often the nominative DP that has subject properties. Typically, the nominative DP is also the highest (or single) argument DP. If the highest argument is a non-nominative DP, as with oblique dative-nominative orders in Icelandic, the oblique DP can have subject properites (see lecture 1).

Ergative pattern:
In ergative systems, there are two possibilites: Either the highest argument DP, or the argument DP that is marked with absolutive case, can exhibit subject properties: *morphological ergativity* (except for CASE marking, the syntax treats $DP_{ext/int}$-V_i and DP_{ext}-V_t on a par) vs. *syntactic ergativity* (as with CASE marking, the syntax treats $DP_{ext/int}$-V_i and DP_{int}-V_t on a par. as in *Mother saw father and – returned*, where – is *he*, not *she*). The former option is chosen in Archi, Basque, Warlpiri; the latter in Dyirbal (at least as a tendency). Optionality is possible as well (Chukchi). Finally, in a single language, some operations may select the highest argument as the subject, and other operations may select the absolutive argument (Inuit). See Comrie (1989), Bobaljik (1993), Dixon (1994), Bittner & Hale (1996a,b).

Syntactic Ergativity 2

Two possible analyses:
(i) In syntactically ergative systems, DP$_{int}$ moves to SpecT (which which it Agrees) and becomes the highest argument (cf. Bittner & Hale (1996b)).
(ii) Subject-oriented operations affect prominent arguments. There are two ways for an argument DP to become prominent:

(26) Prominence:
An argument DP counts as prominent if it

a. occupies the highest argument position in the clause;
b. undergoes Agree with the highest functional head.

Consequence:
The two notions of prominence typically converge on a single argument in accusative systems; the situation is different in ergative systems.

Further Issues: Split Ergativity, Three-Way Systems

Cases of split ergativity

- tense-/aspect-based split ergativitiy, as in Burushaski, Hindi (see Mahajan (1990))
- clause-type based split ergativity, as in Sierra Popoluca (see Elson (1960)).
- person-based split ergativity, as in Dyirbal (see Dixon (1994))

Co-occurrences of ergative and accusative
(see Dixon (1994), Woolford (1997), Kiparsky (1999), and lectures 1 and 3)

Tense/Aspect-Based Splits

Recall that there are two versions of the present analysis:

- constraint ranking (Merge Condition $\gg$ Agree Condition, or vice versa)
- feature hierarchy ([•D•] $>$ [*CASE:INT*], or vice versa)

Here the feature hierarchy version might prove superior:

Sketch of an analysis:

1. The Hindi lexicon has two v's:
   v_1 with the feature hierarchy [•D•] $>$ [*CASE:INT*]
   v_2 with the feature hierachy [*CASE:INT*] $>$ [•D•].
2. T[+PERF] selects v_1, T[−PERF] selects v_2.
3. Morphological realization need not be identical.

Note:
A similar analysis can be developed for clause-type based splits, as in Sierra Popocluca.

Three-Way Systems 1

(27) Antekerrepenhe (Arandic; Central Australia):

a. Arengke-le aye-nhe ke-ke
dog-ERG me-ACC bite-PST
'The dog bit me.'

b. Apwerte-le athe arengke-nhe we-ke
stones-INS I-ERG dog-ACC pelt-PST
'I pelted the dog with stones.'

c. Arengke nterre-ke
dog-NOM run-PST
'The dog ran.'

(28) Nez Perce (Penutian; Oregon):

a. Wewúkiye-ne pée-'wi-ye háama-nm
elk-ACC$_j$ $3_i.3_j$-shoot-PRF man-ERG$_i$
'The man shot an elk.'

b. Hi-páayn-a háama
3_i-arrive-PRF man-NOM
'The man arrived.'

Analyses:

- morphological realization; or
- v has two case features (or there are two v's)

Three-Way Systems 2: Morphological Account

Sketch of an analysis:

- Three-way systems are basically accusative systems (an absolutive of ergative encoding patterns is typically morphologically unmarked on a DP; a nominative of accusative encoding patterns can be marked on a DP).
- There are nominative allomorphs, e.g., le vs. Ø in Antekerrepenhe.
- Distributed Morphology (Halle & Marantz (1993)): Inflectional morphology is post-syntactic: It realizes morpho-syntactic feature bundles that are present in X^0 positions in the syntax. Between syntax and morphology, morpho-syntactic features can be deleted: impoverishment.

(29) An impoverishment rule for N Antekerrepenhe:
[case:ext] $\rightarrow$ Ø/__V (note: context = no internal argument present)

Potential conceptual problem:
Functional motivation for ergative patterns in syntax is mimicked in morphology.

Three-Way Systems 3: Syntactic Account

Alternative:

- v can exceptionally be equipped with two [*case:int*] features.
- In transitive contexts, there are thus three potential case features ([*case:ext*] on T, [*case:int*], [*case:int*] on v).
- One of these features has to disappear: constraints on numerations.
- Assumption: [*case:int*] on v can never go away if there are both DP_{ext} and DP_{int} in the numeration. (See Marantz (1991), Bittner & Hale (1996b), Wunderlich (1997).)
- Consequently, [*case:ext*] is not instantiated on T in transitive contexts.
- In accusative as well as ergative systems, DP_{ext} and DP_{int} both get [case:int] in transitive contexts.
- In intransitive contexts, only the unmarked case feature is instantiated: [*case:ext*] on T.

Person-Based Splits

Person-based split ergativity in Dyirbal:
In Dyirbal, DP_{ext} of V_t is marked ergative if it is a 3rd person pronoun or an item to the right of it on the person/animacy scale in (30). DP_{int} of V_t is marked accusative if it is a 1st or 2nd person pronoun. All other types of argument DP are not encoded by an overt marker (see Dixon (1994)).

> *Person/animacy scale* (Silverstein (1976), Aissen (1999)):
> 1st person pronoun > 2nd person pronoun > 3rd person pronoun > proper name > common noun, human > common noun, animate > commoun noun, inanimate

Strategies for analysis: A person-based split may in principle be either a syntactic or a morphological phenomenon. Such splits often seem to be functionally motivated in the sense that only unexpected, atypical configurations are marked.
(a) Morphology: There is a zero allomorph that results from impoverishment (an operation from Distributed Morphology that delets morphosyntactic features post-syntactically).
(Impoverishment rules might be motivated by functional considerations: Impoverishment can be assumed to be brought about by a system of violable and ranked constraints incorporating the Silverstein hierarchy (see Aissen (1999, 2003), where these constraints are automatically derived on the basis of simple hierarchies, via harmonic alignment and constraint conjunction).
(b) Syntax: Instantiation of argument encoding features in the numeration is restricted by the argument type (its place on the person/animacy scale).

Aissen, Judith (1999): Markedness and Subject Choice in Optimality Theory, *Natural Language and Linguistic Theory* 17, 673–711.

Aissen, Judith (2003): Differential Object Marking: Iconicity vs. Economy, *Natural Language and Linguistic Theory* 21, 435–483.

Bechert, Johannes (1979): Ergativity and the Constitution of Grammatical Relations. In: F. Plank, ed., *Ergativity*. Academic Press, London, pp. 45–59.

Bittner, Maria & Ken Hale (1996a): Ergativity: Toward a Theory of a Heterogeneous Class, *Linguistic Inquiry* pp. 531–604.

Bittner, Maria & Ken Hale (1996b): The Structural Determination of Case and Agreement, *Linguistic Inquiry* pp. 1–68.

Bobaljik, Jonathan (1993): Ergativity and Ergative Unergatives. In: C. Phillips, ed., *Papers on Case and Agreement II*. Vol. 19 of *MIT Working Papers in Linguistics*, MITWPL, MIT: Cambridge, Mass., pp. 45–88.

Chomsky, Noam (2000): Minimalist Inquiries: The Framework. In: R. Martin, D. Michaels & J. Uriagereka, eds., *Step by Step*. MIT Press, Cambridge, Mass., pp. 89–155.

Chomsky, Noam (2001): Derivation by Phase. In: M. Kenstowicz, ed., *Ken Hale. A Life in Language*. MIT Press, Cambridge, Mass., pp. 1–52.

Chomsky, Noam (2004): Questions about Phases. Talk, GLOW 2004, Thessaloniki.

Chomsky, Noam (2005): On Phases. Ms., MIT, Cambridge, Mass.

Collins, Chris (1994): Economy of Derivation and the Generalized Proper Binding Condition, *Linguistic Inquiry* 25, 45–61.

Collins, Chris (2003): Eliminating Labels. In: S. D. Epstein & T. D. Seely, eds., *Derivation and Explanation in the Minimalist Program*. Blackwell, Oxford, pp. 42–64.

Comrie, Bernard (1989): *Language Universals and Linguistic Typology*. 2 edn, Blackwell, Oxford.

Dixon, R.M.W. (1994): *Ergativity*. Cambridge University Press, Cambridge.

Elson, Ben (1960): Sierra Popoluca Morphology, *International Journal of American Linguistics* 20, 206–223.

Fischer, Silke (2004): Towards an Optimal Theory of Reflexivization. PhD thesis, Universität Tübingen.

Frampton, John & Sam Gutman (1999): Cyclic Computation, *Syntax* pp. 1–27.

Gregores, Emma & Jorge Suárez (1967): *A Description of Colloquial Guaraní*. Mouton, The Hague.

Halle, Morris & Alec Marantz (1993): Distributed Morphology and the Pieces of Inflection. In: K. Hale & S. J. Keyser, eds., *The View from Building 20*. MIT Press, Cambridge, Mass., pp. 111–176.

Heck, Fabian (2004): A Theory of Pied Piping. PhD thesis, Universität Tübingen.

Heck, Fabian & Gereon Müller (2000): Successive Cyclicity, Long-Distance Superiority, and Local Optimization. In: R. Billerey & B. D. Lillehaugen, eds., *Proceedings of WCCFL*. Vol. 19, Cascadilla Press, Somerville, MA, pp. 218–231.

Heck, Fabian & Gereon Müller (2006): Extremely Local Optimization. Ms., Universität Leipzig.

Hornstein, Norbert (2001): *Move. A Minimalist Theory of Construal*. Blackwell, Oxford.

Hualde, José Ignacio & Jon Ortiz de Urbina, eds. (2003): *A Grammar of Basque*. Mouton de Gruyter, Berlin.

Kiparsky, Paul (1999): Analogy and OT: Morphological Change as Emergence of the Unmarked. Vortrag auf der 21. Jahrestagung der DGfS, Konstanz. Ms., Stanford University.

Mahajan, Anoop (1990): The A/A-bar Distinction and Movement Theory. PhD thesis, MIT, Cambridge, Mass.

Marantz, Alec (1991): Case and Licensing. In: G. Westphal, B. Ao & H.-R. Chae, eds., *Proceedings of the Eigth Eastern States Conference on Linguistics*. University of Maryland, pp. 234–253.

Müller, Gereon (1998): *Incomplete Category Fronting*. Kluwer, Dordrecht.

Murasugi, Kumiko (1992): Crossing and Nested Paths. PhD thesis, MIT, Cambridge, Mass.

Pesetsky, David (1982): Paths and Categories. PhD thesis, MIT, Cambridge, Mass.

Pesetsky, David (1989): Language-Particular Processes and the Earliness Principle. Ms., MIT, Cambridge, Mass.

Pesetsky, David & Esther Torrego (2001): T-to-C Movement: Causes and Consequences. In: M. Kenstowicz, ed., *Ken Hale. A Life in Language*. MIT Press, Cambridge, Mass., pp. 355–426.

Prince, Alan & Paul Smolensky (2004): *Optimality Theory. Constraint Interaction in Generative Grammar*. Blackwell, Oxford.

Sigurðsson, Halldór (2004): The Nominative Puzzle and the Low Nominative Hypothesis. Ms., Lund University.

Silverstein, Michael (1976): Hierarchy of Features and Ergativity. In: R. Dixon, ed., *Grammatical Categories in Australian Languages*. Australian Institute of Aboriginal Studies, Canberra, pp. 112–171.

Stabler, Edward (1996): Acquiring and Parsing Languages with Movement. Book ms., UCLA.

Sternefeld, Wolfgang (2003): Syntax. Eine merkmalsbasierte Analyse. Book ms., Universität Tübingen.

Svenonius, Peter (1994): C-Selection as Feature-Checking, *Studia Linguistica* 48, 133–155.

Williams, Edwin (1981): Argument Structure and Morphology, *The Linguistic Review* 1, 81–114.

Woolford, Ellen (1997): Four-Way Case Systems: Ergative, Nominative, Objective and Accusative, *Natural Language and Linguistic Theory* 15, 181–227.

Wunderlich, Dieter (1997): Der unterspezifizierte Artikel. In: C. Dürscheid, K. H. Ramers & M. Schwarz, eds., *Sprache im Fokus*. Niemeyer, Tübingen, pp. 47–55.