Who (agent/actor) did what (patient/undergoer)?

How do languages express events with actor and undergoer?

What are cross-linguistically expected patterns? What are unexpected patterns?

- CASES
- Hierarchies
- Alignment Typology
- Word Order
- Complications
CASES

Case is a category of marking dependent noun phrases for the type of relationship they bear to their heads (cf. Blake 2001:1)

**head** (governor)  **dependent** noun phrase with case

- *ad*  *urb-em*  (SG.ACC)  'at town'
- *victoria*  *Roman-orum*  (PL.GEN)  'the victory of the Romans'
- *lego*  *libr-um*  (SG.ACC)  '(I) am reading a book'

CASE beyond inflectional affixes (Dryer 2013b)

- adpositional clitics
- tone (e.g. Nilotic languages such as Shilluk, Maasai and Nandi)
Implicational p-universal (Plank UA, 907):

Adpositions encode subject and object only if the language lacks inflectional case altogether.

Most universals are probabilistic, i.e. not exceptionless (p-universals)

Implicational universals "if A then B" exclude only "A without B":

<table>
<thead>
<tr>
<th>Language</th>
<th>subj obj</th>
<th>peripheral functions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Japanese</td>
<td>adpos</td>
<td>adpos</td>
</tr>
<tr>
<td>Latin</td>
<td>case</td>
<td>adpos</td>
</tr>
<tr>
<td>Hungarian</td>
<td>case</td>
<td>case</td>
</tr>
<tr>
<td>exceptional</td>
<td>adpos</td>
<td>case</td>
</tr>
</tbody>
</table>
CASE in the broadest sense: Dependent- vs. head-marking languages  
(Nichols 1986)

Abkhaz (North-West Caucasian, Hewitt 1979: 51):

a-xàc'a  a-phalt's  l-yôëza  a-şqô'ê  Ø-lê+z-ô-ye-tyyt'

the-man  the-woman  her-friend  the-book  it-her+for-to.her-he-gave

'The man gave the book to the woman for her friend.'

Verbal arguments bear zero exponence for CASE, the CASE functions are exclusively marked by verb prefixes (one has zero exponence, see Ø-)
Hierarchies (scales) of CASES and grammatical relations

The members of linguistic categories and relations are aligned on a hierarchy.

CH: nominative > accusative > dative > other oblique cases
GRH: subject > direct object > indirect object > other oblique function

increasing formal simplicity
increasing frequency
accessible to more operations / rules
easier to process
earlier in language acquisition

GRH: Keenan & Comrie 1977, among many others
Increasing formal complexity right-/downward

IF a grammatical function is encoded by adpositions, THEN all functions lower on the GR Hierarchy of the language are also coded by adpositions and not by inflectional cases (see above)

Increasing formal simplicity left-/upward

Exercise: replace the question marks

IF a CASE has only zero exponence, THEN all CASES ??? on the CASE Hierarchy of the language also have ???.

Counterexamples are marked nominative languages, which are extremely rare world wide but frequent in East Africa, e.g. Oromo (Cushitic) and Turkana (Eastern Nilotic), where they are maked by tone (König 2009).

Tone-marking and head-marking systems exhibit less clear formal asymmetries.
Frequency

For any CASES of verbal arguments ranked as A > B on the CH, if B is selected by a verbal predicate*, then A is also selected.

Inflectional cases with bivalent verbs in German (Primus 2011):

92.7% nom+acc
7% nom+dat (vs. 99% nom+acc+dat)
0.3% nom+gen

Counterexamples: Split-intransitive systems, where the subject of one subclass of intransitive verbs is marked by a non-nominative CASE depending on its semantic role or the aspect class of the verb, inter alia.

*Selection frequencies are dependent on the head category. Nominal heads most frequently select the genitive.
### Accessibility - Agreement

For any grammatical relations whose CASES are ranked as A > B on the CH, if the clausal predicate agrees with B-arguments, then it also agrees with A-arguments (Primus 1999, chap. 6; Croft 2001, chap. 4)

<table>
<thead>
<tr>
<th>Language/Region</th>
<th>subj/nom</th>
<th>dirobj/acc</th>
<th>indirobj/dat</th>
</tr>
</thead>
<tbody>
<tr>
<td>Swahili, Kinyarwanda (Bantu), Maltese, Arabic (Semitic)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Hungarian, Mordvin (Finno-Ugric)</td>
<td>✓</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>German, Russian</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indonesian (no agreement)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>unexpected (Exercise: replace ?) Barai (Southeast Papuan), Roviana (Solomon Islands, Malayo-Polynesian), Gilbertese* (Micronesian, Malayo-Polynesian)</td>
<td>?</td>
<td>?</td>
<td>?</td>
</tr>
</tbody>
</table>

*also known as Kirabati

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Typology of Basic Clause Structure
Beatrice Primus

LLACAN Paris, January 14th 2015
Processing difficulty (Bader & Lamers 2009)

Experimental evidence (e.g. case error detection)

Given A > B on the CH, B used instead of A was detected faster/more reliably than A used instead of B.

Example: *unterstützen* 'support' selects ACC, *helfen* 'help' selects DAT; *unterstützen + DAT* is a more severe error than *helfen + ACC*

Language acquisition (Eisenbeiß et al. 2006 for German)

<table>
<thead>
<tr>
<th></th>
<th>Earlier / fewer errors</th>
<th>Later / systematic errors</th>
</tr>
</thead>
<tbody>
<tr>
<td>nom+acc</td>
<td>nom+dat</td>
<td>nom+gen (5 years)</td>
</tr>
<tr>
<td>nom+acc+d</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Explanations for hierarchies

- markedness (critically discussed in Haspelmath 2006, Bybee 2011)
- frequency (Croft 2001, Bybee 2011)
- language performance, i.e. processing and acquisition (Primus 2011)

Primus (2011: 314): The rationale of hierarchies is to guarantee a coalition of conditions that enhances efficiency in performance.

Example: The simplest (least marked) form is used most frequently and is most accessible to grammatical operations.

Hawkins' Performance-Grammar Correspondence Hypothesis (2011): Grammars have conventionalized structures in proportion to their degree of preference in performance.
Are hierarchies universal?

The fact that categories are organized on hierarchies is a p-universal, but the categories themselves may not be. We may call the first CASE on the CH of any language "nominative" or "subject" but we need not.

The order of German case forms for 'the' (M.SG) oriented on Latin:

\[ \text{der - des - dem - den} \]

The typologically informed order of case forms (Eisenberg 2004):

\[ \text{der - den - dem - des} \]

\[ \text{– heavier, i.e. less sonorous, syllable coda} \]

The grammatical relation that can be expressed by \textit{der} is the only target of verb agreement etc., etc.
Alignment Typology (e.g. Dixon 1994, Primus 1999, Bickel 2011)

also: typology of grammatical relations, relational typology

actor-like (A)    patient-like (P)  
1st CASE          2nd CASE         accusative construction
2nd CASE          1st CASE         ergative construction

A generalized CASE Hierarchy

nominative/absolutive > accusative/ergative > dative > other oblique cases


These authors do not distinguish adverbal vs. adnominal selection and therefore assume adnominal gen > dat. This leads to unnecessary counterexamples (cf. Malchukov & Spencer 2009: 653).
Yawa (isolate, Papuan, Jones 1986: 40, 47)

Dorpinus  po     Marianna     r-anepata
Dorpinus  CASE.3SG.M Marianna-Ø  3SG.F.P-hit
‘Dorpinus is/was hitting Marianne’

Natanyer  a-jaya  Ø-awabe-to
Natanyer  3SG.M.POS-father-Ø  3SG.M-yawn-PERF
‘Natanyer’s father is yawning’

Exercise: Is this an accusative, ergative or marked nominative pattern?
Hierarchy-based expectations

nom/abs > acc/erg > dative > other oblique cases

- increasing formal simplicity
- increasing frequency
- accessible to more operations / rules
- easier to process (no pertinent studies)
- earlier in language acquisition (Bavin & Stoll 2013)
Exercise: Spell out the expectations

If the language has exactly one argument function which has only or predominantly zero exponentence then

- will it be selected most frequently by mono-, bi-valent and trivalent verbs?
- will it trigger verb agreement iff CASE-functions determine this rule?

CASE-based agreement: each CASE function has its specific agreement marker(s)

- will it be the first to be acquired in language acquisition?
- will it be linked/mapped to actor-like roles or to patient-like roles?
CASE-based agreement in ergative constructions

For any grammatical relations whose CASES are ranked as A > B on the CH, if the clausal predicate agrees with B-arguments, then it also agrees with A-arguments (Primus 1999, chap. 6; Croft 2001, chap. 4)

<table>
<thead>
<tr>
<th></th>
<th>ABS</th>
<th>ERG</th>
<th>DAT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basque (Isolate), Abkhaz (Northwest-Caucasian)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>West Greenlandic (Eskimo), K’iche’ (Mayan)</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Avar (Northeast-Caucasian), Kurdish (Iranian), Kuikuro (Cariban), Yawa (see above)</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
CASE on full noun phrases does not privilege actor-roles over patient-roles.

Comrie 2013, WALS:

<table>
<thead>
<tr>
<th>Value</th>
<th>No lgs (total)</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neutral</td>
<td>98</td>
<td>51.6</td>
</tr>
<tr>
<td>Nominative-accusative (standard)</td>
<td>46</td>
<td>24.2</td>
</tr>
<tr>
<td>Nominative-accusative (marked nominative)</td>
<td>6</td>
<td>3.2</td>
</tr>
<tr>
<td>Ergative-absolutive</td>
<td>32</td>
<td>16.8</td>
</tr>
<tr>
<td>Tripartite</td>
<td>4</td>
<td>2.1</td>
</tr>
<tr>
<td>Active-inactive</td>
<td>4</td>
<td>2.1</td>
</tr>
<tr>
<td>Total</td>
<td>190</td>
<td>100</td>
</tr>
</tbody>
</table>

active/inactive, also known as "split intransitive", is widely spread and co-occurs with the ergative or accusative pattern (Bickel & Nichols 2009).
Word order

Word order privileges actor-roles over patient-roles.

Greenberg's (1963) Universal 1: In declarative sentences with nominal subject and object, the dominant order is almost always one in which the subject precedes the object.

"The terms subject and object are used here in a rather informal semantic sense, to denote the more agent-like and more patient-like elements respectively" (Dryer 2013a).
Dryer 2013a, WALS:

<table>
<thead>
<tr>
<th>Value</th>
<th>No lgs (total)</th>
<th>No lgs (total)</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subject-object-verb (SOV)</td>
<td>565</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subject-verb-object (SVO)</td>
<td>488</td>
<td>1148</td>
<td>83.4</td>
</tr>
<tr>
<td>Verb-subject-object (VSO)</td>
<td>95</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Verb-object-subject (VOS)</td>
<td>25</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Object-verb-subject (OVS)</td>
<td>11</td>
<td>40</td>
<td>2.9</td>
</tr>
<tr>
<td>Object-subject-verb (OSV)</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lacking a dominant order</td>
<td>189</td>
<td>189</td>
<td>13.7</td>
</tr>
<tr>
<td>Total</td>
<td>1377</td>
<td>1377</td>
<td>100</td>
</tr>
</tbody>
</table>
Summary

CASE

- It is useful to align CASES on a hierarchy (formal marking, frequency, accessibility, lg. processing & lg. acquisition)
- Three dominant patterns for coding actor vs. patient for bivalent events
  - neutral pattern (no CASE)
  - accusative pattern (1\textsuperscript{st} CASE for actor)
  - ergative pattern (1\textsuperscript{st} CASE for patient)
  - split intransitivity is wide spread and co-occurs with the ergative or accusative pattern (Bickel & Nichols 2009)

WORD ORDER

- Word order is a scale, i.e. the first argument position is the privileged one.
- There is only one dominant pattern: actor-like roles are privileged.
Complications - Some examples

"Subject" and "object" are indeterminate wrt to CASE, word order or semantic roles, so do not use them.

In ergative languages there is a tension between CASE, which privileges P, and basic / dominant argument order, which privileges A; so their syntax is often split and (even) less predictable than that of accusative languages.

The CASE patterns ergative vs. accusative are most consistently used for agents proper and patiens proper. Other types of verbs, for instance verbs expressing mental states, often do not follow the basic pattern of the language.

Both CASES and word order serve other functions related, inter alia, to information packaging (e.g. focus, topic, definiteness), animacy and personhood.

Example: In Hindi a patient is marked by the nominative, unless it is definite and animate, in which event it is marked by the CASE ko (also used for recipients/ addressees of trivalent verbs). This pattern is known as "differential object marking".

Time for discussion
References


Plank, Frans. The Universals Archive (UA) http://typo.uni-konstanz.de/archive/intro/ Accessed on 2015-01-09


