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ÖSKL - 2014 - ASCL

Syntactic Typology - 50 years after Greenberg (1963)

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ÖSKL - 2014 - ASCL

Syntactic Typology - 50 years after Greenberg (1963)

❖ **50 years ago – a novel approach**

❖ **Little convergence since then**

❖ **Headroom for improvements**

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Greenberg's sample of thirty languages

Joseph H. Greenberg (1963). Some universals of grammar with particular reference to the order of meaningful elements. in: *Universals of language*. Joseph H. Greenberg (ed.), 73–113. Cambridge: MIT Press.

➢ 45 **correlations** („Universals")

For many of the statements in this paper, a sample of the following 30 languages has been utilized: Basque, Serbian, Welsh, Norwegian, Modern Greek, Italian, Finnish (European); Yoruba, Nubian, Swahili, Fulani, Masai, Songhai, Berber (African); Turkish, Hebrew, Burushaski, Hindi, Kannada, Japanese, Thai, Burmese, Malay (Asian); Maori, Loritja (Oceanian); Maya, Zapotec, Quechua, Chibcha, Guarani (American Indian).

≈ **0,4%** of the presently known languages

Europe:	7	Asia:	9	
Africa:	7	Americas:	5	Oceania: 2

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A promising program …..

In a certain sense we would prefer to have as few universals as possible, not as many. That is, we would like to be able to deduce them from as small a number of general principles as possible.

Essential implication for this program to become effective:
Typology depends on **grammar theory** and vice versa.

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A promising program …..

… with a limited unstanding of word order factors in **1963**

> 9. **II/Pr/NG/NA.** Romance languages, Albanian, Modern Greek; West Atlantic languages, Yoruba, Edo group, most languages of Benue-Congo group including all Bantu languages; Shilluk, Acholi, Bari, most languages of Chad group of Hamito-Semitic but not Hausa; Neo-Syriac, Khasi, Nicobarese, Khmer, Vietnamese, all Thai languages except Khamti; many Austronesian languages including Malay; Subtiaba.
> 10. **II/Pr/NG/AN.** German, Dutch, Icelandic, Slavonic, Efik, Kresh, Maya, Papiamento.
> 11. **II/Pr/GN/AN.** Swedish, Danish.
> 12. **II/Pr/GN/NA.** Arapesh (New Guinea).

II   **= SVO**
Pr = Prepositions
NG = Noun before genitive
AN = Attributive adjective before noun

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Still an **undeveloped** program …..

… with a restricted unstanding of word order factors in **2013**

WALS –   World Atlas of Language Structures
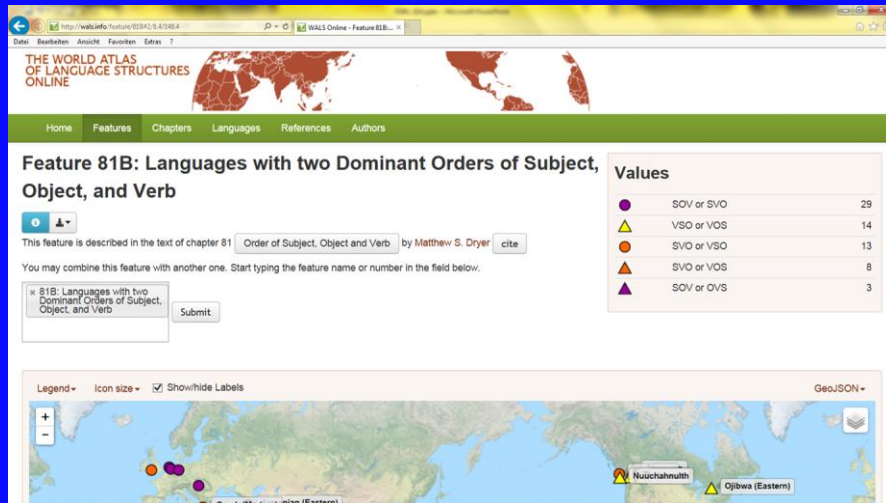   by M. Dryer & M. Haspelmath (eds.)

"Type 1 represents languages which are SOV/SVO, i.e. languages in which the orders **SOV** and **SVO** are common relative to other orders, but where **neither order is dominant** relative to the other. An example of a language of this type is **German**".

URL: http://wals.info/chapter/81

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… with a restricted understanding in **2013**:

WALS – World Atlas of Language Structures

… with a restricted understanding in **2013**:

WALS – World Atlas of Language Structures

http://wals.info/feature/81B#2/8.4/148.4
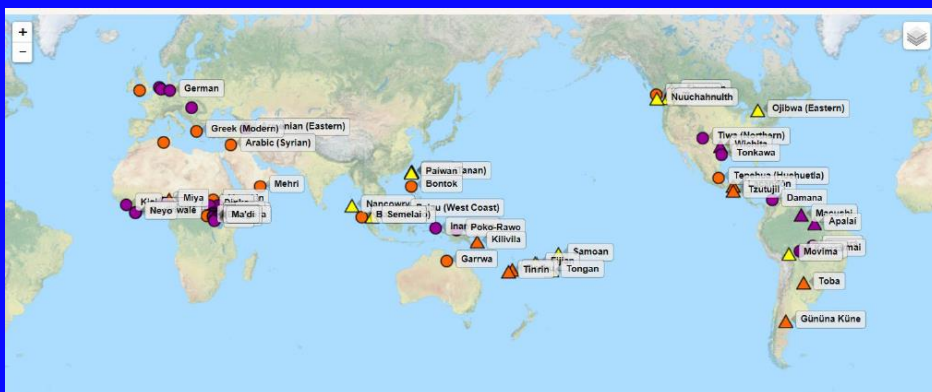
WALS – World Atlas of Language Structures

http://wals.info/languoid/lect/wals_code_ger

Language German

Showing 1 to 157 of 157 entries

Fid ▲	Value	Feature	Source	Area
81A	No dominant order	Order of Subject, Object and Verb	Lederer 1969: 575ff., own knowledge	Word Order
81B	SOV or SVO	Languages with two Dominant Orders of Subject, Object, and Verb	Lederer 1969: 575ff, own knowledge	Word Order
82A	SV	Order of Subject and Verb	Lederer 1969: 575ff., own knowledge	Word Order
83A	No dominant order	Order of Object and Verb	Lederer 1969: 575ff., own knowledge	Word Order
84A	No dominant order	Order of Object, Oblique, and Verb	Lederer 1969: own knowledge	Word Order
85A	Prepositions	Order of Adposition and Noun Phrase	Lederer 1969: 356-357	Word Order
86A	Noun-Genitive	Order of Genitive and Noun	Lederer 1969: 605, 608	Word Order

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… with a restricted understanding in **2013**:

WALS – World Atlas of Language Structures

Datapoint German / Languages with two Dominant Orders of Subject, Object, and Verb

Language: German
Feature: Languages with two Dominant Orders of Subject, Object, and Verb by Matthew S. Dryer
Value: SOV or SVO

References
· Lederer 1969

Comments

History
2011-04-28 SOV or SVO

Dryer, Matthew S. & Haspelmath, Martin
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disclaimer
Application source on **GitHub**

http://wals.info/valuesets/81B-ger

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Some have known it better – since **32** and **127** years, respectively.

"*The order used for a stylistically unmarked version of* 'John saw Mary' *in German would be SVO, too, but to simply call German an SVO language would disguise the **verb-second nature** of its word order.*"

Mallinson & Blake (**1981**:129)

„Durchaus unrichtig ist es, wenn manche Grammatiker hier dem Subjectsnominativ besondern Anspruch auf die erste Stelle ein-räumen wollen"   [in original orthography]

(It is completely incorrect if in these cases some grammarians want to grant special priority to the nominative subject for the first position of the clause).

Oskar Erdmann (**1886**:183; §206).

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Different perspectives on languages

➢ **Typology**   Focus on **cross-linguistic diversity**

Bickel (2007): "The new goal of typology is the development of theories that **explain** why **linguistic diversity** is the way it is."

Extreme position: There are **no** invari-ants at all.

➢ **Grammar theory**   Focus on **cross-grammatical invariants**
Extreme position: All languages are basically **like English.**

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Different perspectives on languages

➢ **Typology**   Focus on **cross-linguistic <u>diversity</u>**
                         Extreme position: There are **no** invari-
                         ants at all.

➢ **Grammar theory**   Focus on **cross-grammatical <u>invariants</u>**
                         Extreme position: All languages are
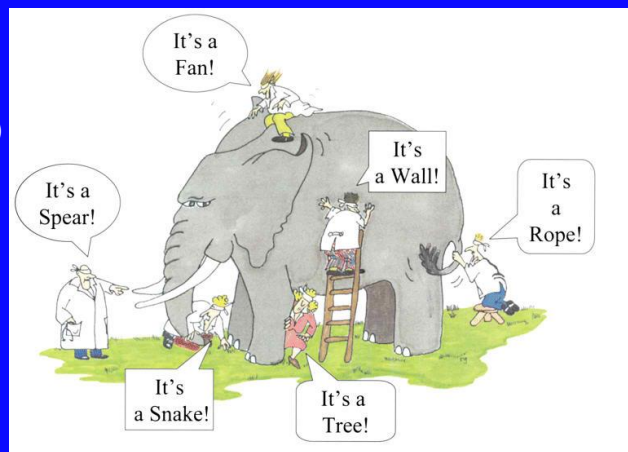   basically **like English.**

Where do they meet?
In company of **"The six blind men from Indostan"**

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**It was six men of Indostan
to learning much inclined,
who went to see the Elephant
(though all of them were blind)**

…………..
And so these men of Indostan   ***"The Blind Men and the Elephant"***
disputed loud and long,   **John Godfrey Saxe** (1816-1887)
each in his own opinion
exceeding stiff and strong,
**though each was partly in the right,
and all were in the wrong!**

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Diversity only – no invariants!**?**

The myth of language universals:
Language diversity and its
importance for cognitive science

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Universals – no evidence ?!

- **"Many** languages do **not** have syntactic **constituents."** (p.443)

  How could you prove this? Do they employ **string**-based **rules** rather than **constituent**-based ones?

  Typologists look for serialization **patterns**, not for phrasal **structures.**

Universals – no evidence ?!

Would **THIS** prove that German has **no** constituents?

(1) a. <u>Papers</u> haben wir <u>von ihm</u> bisher nur <u>drei konfuse</u> *gesehen*

   b. <u>Papers</u> *gesehen* haben wir <u>von ihm</u> bisher nur <u>drei konfuse</u>

   c. <u>Konfuse Papers</u> haben wir <u>von ihm</u> bisher nur <u>drei</u> *gesehen*

   d. <u>Konfuse</u> <u>Papers</u> *gesehen* haben wir <u>von ihm</u> bisher nur <u>drei</u>

   e. *Gesehen* haben wir <u>Papers</u> <u>von ihm</u> bisher nur <u>drei konfuse</u>

   f. *<u>Von ihm</u>* haben wir bisher nur *<u>drei konfuse Papers</u>* *gesehen*

   g. Nur *<u>drei konfuse Papers</u>* haben wir bisher *gesehen <u>von ihm</u>*
     only three confused papers have we until-now seen of him

<div align="right">Haider (2010: 4; 345f.)</div>

„Papers" or the participle („gesehen") anywhere?

By the way: Do you perceive a „dominant SVO order" here ?

Universals – no evidence ?!

Would **THIS** prove that German has **no** constituents?

(1) a. Papers <u>haben</u> wir von ihm bisher nur drei konfuse *gesehen*

   b. Papers *gesehen* <u>haben</u> wir von ihm bisher nur drei konfuse

   c. Konfuse Papers <u>haben</u> wir von ihm bisher nur drei *gesehen*

   d. Konfuse Papers *gesehen* <u>haben</u> wir von ihm bisher nur drei

   e. *Gesehen* <u>haben</u> wir Papers von ihm bisher nur drei konfuse

   f. *Von ihm* <u>haben</u> wir bisher nur *drei konfuse Papers gesehen*

   g. Nur drei konfuse Papers <u>haben</u> wir bisher gesehen von ihm
     only three confused papers have we until-now seen of him

<div align="right">Haider (2010: 4; 345f.)</div>

A **single constituent** preceding the finite verb

Universals – no evidence ?!

- "Many languages have *no*, or very circumscribed *recursion* in their syntax." (p.443)

  Indeed?

  So, their grammar has no way to combine NPs as in (i.) to (iii.)?

i.   the [beak of [the bird]]
ii. the [beak of [the bird in [the tree]]]
iii. the [beak of [the bird in the [tree in front of [me]]]]

  Evidence is wanting.

Universals – no evidence ?!

- Languages may **lack** words or constructions corresponding to the **logical connective "if"** (Guugu Yimithirr) (p.435)

  Who needs an „if" if there is **negation** plus „or"?

  $(A \rightarrow B) \equiv ((\neg A) \vee B)$

  i. **If** it does **not** work, we fix it $= [\neg P \rightarrow Q]$

                                                        $= [\neg \neg P \vee Q]$

  ii. It works **or** we fix it $= [P \vee Q]$

Diversity vs. Invariance

- ‚**Diversity**' is *phenomenological* (data properties).
  ‚**Invariance**' is *theoretical* (abstract generalizations).
  Diversity you ‚hear'; invariants you cannot ´hear'.

- **Not:** „*Every **language*** has property P"

  But: "*Grammars* of natural languages have property P".

Diversity vs. Invariance

Unable to see the forest for the trees?   **(Dryer 1992)**

98   LANGUAGE, VOLUME 68, NUMBER 1 (1992)

whether the negative should be considered a verb or not. Table 23 shows that both OV and VO languages exhibit a tendency to place the negative particle before the verb.

	AFRICA	EURASIA	SEAsia&Oc	Aus-NewGui	NAmer	SAmer	Total
OV&VNeg	2	1	0	2	2	4	11
OV&NegV	5	6	1	11	5	3	31
VO&VNeg	6	0	1	0	0	0	7
VO&NegV	7	5	7	3	17	4	43

TABLE 23. Order of verb and negative particle.

Table 24 shows that, when we compare proportions, VNeg tends to be more common in OV languages; but this tendency falls short of statistical significance, since VNeg is more common in only four areas. I will assume, therefore, that ⟨verb, negative particle⟩ is not a correlation pair. If we follow the usual assumption that negative particles are modifiers of verbs, then the HDT predicts not only that verb and negative particle ought to be a correlation pair but also that we ought to find a correlation in the OPPOSITE direction from the trend that we actually find.[14]

Diversity vs. Invariance

Unable to see the forest for the trees?

Example: Distribution of a **negation** particle relative to the verb

a. Sie **beachten** diesen Umstand nicht   German

     they recognize this circumstance not

b. wenn sie diesen Umstand nicht **beachten**

c. Han **förhindrat** inte detta avsked   Swedish

     he   prevents not   this   parting

d. att han inte **förhindrat** detta avsked

e. de ne pas **manger** de viande   French

f. On ne **mange** pas de viande

What is the relevant generalization?

If a non-clitic **negation** particle **follows** the verb, the verb is **finite**.

Comment:

Since Dryer fails to distinguish between the **finite** verb and **non-fininite** verbs, he is unable to capture the correlation:

He does not appreciate negation as a semantic operator with concomitant syntactic domain requirements.

Diversity vs. Invariance

Unable to see the forest for the trees?

Example: Distribution of a negation particle relative to the verb

Finite verb precedes the negation particle:

a. Sie **beachten** diesen Umstand **nicht**
   they recognize this circumstance **not**

b. Han **förhindrat** inte detta avsked   Swedish
   he   prevents   **not** this parting

c. On ne **mange** pas de viande   French
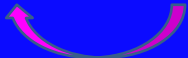   one CL eats   **not**   of meat

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Semantic domain requirement for negation

Negation must **c-command** the **canonical** position of the **finite** verb since it operates on the proposition that is situated by finiteness by means of tense.

The **fronting of a finite verb** masks the domain requirement of negation which is satisfied in the canonical position of the verb:

(a)   […. NEG [$_{VP}$ V° ….]]   [head-<u>initial</u> VP]

   […. V$_{fin-i}$ NEG [$_{VP}$ e$_i$ ….]]
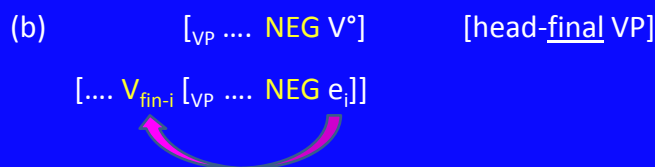
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Syntactic domain requirement for negation

Negation must **c-command** the **canonical** position of the **finite** verb since it operates on the proposition that is situated by finiteness by means of tense.

The **fronting of a finite verb** masks the domain requirement of negation which is satisfied in the canonical position of the verb:

(b) $[_{VP} \ldots$ NEG V°] [head-<u>final</u> VP]

$[\ldots V_{fin-i} [_{VP} \ldots$ NEG $e_i]]$

---

a. (that) they **have <u>not</u>** --- differentiated enough

b. Sie **beachten** diesen Umstand <u>**nicht**</u> ---
they recognize this circumstance **<u>not</u>**

d. Han **förhindrat <u>inte</u>** --- detta avsked Swedish
he prevents **<u>not</u>** this parting

g. On ne **mange <u>pas</u>** --- de viande French
one CL eats **<u>not</u>** of meat

common. The examples in (111) from Slave and Waskia, a Trans-New Guinea language (Ross and Paol 1978), illustrate the two orders of negative particle and verb in OV languages.

(111) a.   dene   gháyeyídá   yíle
            person   1PL.see   not
                      V   Neg
            'we didn't see anyone'

$V_{fin} - Neg$ (Slave)

       b.   ane   yu   me   nala   bage-sam
            1SG   water   not   drink   stay-PRES.1SG
                           Neg   V
            'I never drink water'

$Neg - V - V_{fin}$ Waskia)

Dryer (2006: 34)

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Why do biologists not generalize like typologists?
For instance:

- If a sea-dwelling animal is fur-covered it has whiskers and not more than three fins.

- If a sea-dwelling animal is loricated it has a pair of claws and at least two times three legs.

Hairy frog fish   30

Why do biologists not generalize like typologists?

- If a sea-dwelling animal is fur-covered it has whiskers and not more than three fins.

- If a sea-dwelling animal is loricated it has a pair of claws and more than three legs.

Because cross-classifications by **arbitrarily** chosen **sets** of **superficial** properties are of little significance.
Biologists compare organisms in terms of properties of **systems** of organic **structures**.

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The extreme position in grammar theory:
Generative Grammar postulates **uniformity** plus derivational **rearrangements**

i. that we should give this proposal up instantly

ii. dass wir den Vorschlag sofort aufgeben sollten
⇑ ⇑ ⇑
⇑ ⇑ ⇑
iii. dass wir sollten geben den Vorschlag auf sofort

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ii. dass wir sollten geben den Vorschlag auf sofort

Derivational result:

iii. dass wir den Vorschlag sofort aufgeben sollten

Explanatory gain? – Profound perplexity!
Why? The allegedly moved items do not show the properties of moved items (see Haider 2010, 2013, ch. 9).

---

ii. dass wir sollten geben den Vorschlag auf sofort

Derivational result:

iii. dass wir den Vorschlag sofort aufgeben sollten

Explanatory gain? – Profound perplexity!

> In a certain sense we would prefer to have as few universals as possible, not as many. That is, we would like to be able to deduce them from as small a number of general principles as possible.

It is evident that typology and grammar theory must join forces:

❖ **Typology** without grammar theory lacks **orientation**

❖ **Grammar theory** without well-assessed cross-linguistic evidence lacks empirical **grounding**

Grammar theory and typology investigate the same objects, but from different perspectives, namely **diversity** vs. **invariants.**

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Where to meet?
An obvious point in common: **head-complement order** systematic & cross-categorial

[… V° …]	VP	head-initial? / head-final? / 'flexible'?
[… N° …]	NP	head-initial? / head-final? / 'flexible'?
[… A° …]	AP	head-initial? / head-final? / 'flexible'?
[… C° …]	CP	head-initial? / head-final? / 'flexible'?
…………		

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'Genitive' in typological literature – equivocations
In need of differentiation

2.1. NOUN AND GENITIVE. Table 5 gives the data on the order of noun and genitive. It shows that, while there is an overwhelming preference for GenN order among OV languages, the preference for NGen order among VO languages is much weaker: in fact, in two areas GenN order is more common among VO languages. In order to determine whether there is a correlation here,

	AFRICA	EURASIA	SEASIA&OC	AUS-NEWGUI	NAMER	SAMER	TOTAL
OV&GenN	17	21	5	16	30	23	112
OV&NGen	6	3	1	2	0	0	12
VO&GenN	5	4	4	6	6	5	30
VO&NGen	22	5	12	0	21	3	63

TABLE 5. Order of noun and genitive.

we must compare proportions, as we did with relative clauses. Table 6 gives the proportions of genera containing GenN languages in OV and VO languages. The data in this table still falls short of demonstrating a statistically significant

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'Genitive' in typological literature – equivocations
In need of differentiation

➢ **OV & GenN** has **‚two chances':**
  a. ‚Gen.' as the **complement** of the noun in the head-**final** NP
  b. ‚Gen.' as the ‚**specifier**' of the head-final NP

➢ **VO & GenN:** ‚Gen.' must be the ‚**specifier**' of the head-**final** NP

	AFRICA	EURASIA	SEASIA&OC	AUS-NEWGUI	NAMER	SAMER	TOTAL
OV&GenN	17	21	5	16	30	23	112
OV&NGen	6	3	1	2	0	0	12
VO&GenN	5	4	4	6	6	5	30
VO&NGen	22	5	12	0	21	3	63

TABLE 5. Order of noun and genitive.

OV & NGen is the outcome of **reverse** headedness (cf. German):

  VP is head-final
  NP is head-initial

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Differentiation:
'Genitive' in the typological literature – equivocations

"There is relatively little crosslinguistic difficulty in identifying genitive constructions." (Dryer 2006:20)

(27)	a.	the box's cover		b.	the cover of the box	
		G N			N G	

(Dryer 2006:7)

2006. Word order. In: *Clause Structure, Language Typology and Syntactic Description*, Vol. 1, edited by Timothy Shopen. Cambridge University Press.

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Differentiation:
'Genitive' in the typological literature – equivocations

English (VO & GenN ?)

a. [the emperor of China]**'s** new dresses

b. * [the emperor**'s** of China] new dresses

German (VO & GenN ?)

c. [Dem Kaiser von China] **seine** neuen Kleider

d. * [des Kaiser**s** von China] neue Kleider

<u>Comment</u>: These are **not** 'prenominal genitives'. These are prenominal possessive phrases. A genitive NP would be ungrammatical (see c. & d.).

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Differentiation:
'Genitive' in the typological literature – equivocations

Korean (B. Santorini. http://www.ling.upenn.edu/~beatrice/syntax-textbook/ch5.html)

```
a. N
    kutul-uy [N' [DP mocek-uy ] chukwu ]
    they-Gen        goal-Gen   pursuit
    'their pursuit of their goal'

b.
    ku-uy [N' [DP ciwonse-uy ]      ceychwul ]
    3.ps.sg-Gen   application-Gen submission
    'his submission of his application'
```
   ☒ seine [der Bewerbung] Einreichung
```
c.
    Lisa-uy [N' [PP il-ey    tayhan ] capwusim ]
    Lisa-Gen      work-in regarding pride
    'Lisa's pride in her work'
```
d.   ☑ Lisa's [die Arbeit betreffende] Genugtuung

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How would **theoretical syntax** benefit from typology?

Typological syntax should be the 'experimental branch' of theoretical syntax.

It empirically checks theoretical predictions and it pro-duces empirical generalization that call for theoretical explications.

In sum

- Theoretial syntax benefits from refined typological input.

- Typological syntax benefits from theoretical insights.

- Why don't they join forces?!

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Bickel, Balthasar. 2007. Typology in the 21st century: major current develop-ments. *Linguistic Typology* 11: 239 – 251.

Dryer, Matthew S. 1992. The Greenbergian word order correlations. *Language* 68(1): 81-138.

Dryer, Matthew S. 2007. Word order. In Timothy Shopen (ed.) *Clause Structure, Language Typology and Syntactic Description*, Vol. 1. Cambridge University Press. 61-131.

Erdmann, Oskar. 1886. *Grundzüge der deutschen Syntax nach ihrer geschicht-lichen Entwicklung.* Erste Abt. Stuttgart: Cotta. (Reprint 1985. Hildesheim: Georg Olms Verlag)

Haider, Hubert. 2010. *The Syntax of German*. Cambridge: Cambridge University Press.

Haider, Hubert. 2013. *Symmetry breaking in Syntax*. Cambridge: Cambridge University Press.

Mallinson, Graham & Barry J. Blake, 1981. *Language typology: Cross-linguistic studies in syntax.* Amsterdam: North-Holland.

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