Grammatical "anomalies" and linguistic theory: the irreplaceable value of fieldwork

Farrell Ackerman
University of California at San Diego

If you want to find new ideas, read old books: not only old linguistics books, but old books in comparative animal behavior and ontogenetic development. Adapted from somewhere.

The fact about science is that everyone who has a made a serious contribution to it is aware, or very strongly suspects, that the world is not only queerer than anyone has imagined, but queerer than anyone can imagine. ***This is a most disturbing thought, and one flees from it by stating the exact opposite.*** J. S. Haldane as cited R. G. Reid *Biological Emergences: Evolution by Natural Experiment* 2007:431

"...individuals are quite stupid compared to the complexity of the problems we aspire to solve... **All anyone can hope to do is to make canny simplifications that do minimum damage to understanding.**" P. J. Richerson & R. Boyd *Not by genes alone: How culture transformed human evolution* 2005:248

Q: What do you do if you constantly encounter phenomena that are unexpected or precluded by the standard canny simplifications in linguistic theory and which appear to do more than minimum damage to understanding, but don't want to flee?

A: Develop a construction-theoretic account that directly addresses linguistic variation without privileging any specific encoding and build this by appealing to successful strategies for the analysis of complex adaptive systems in other sciences.

Prenominal relative clauses

Many languages have externally headed prenominal NON-SUBJECT relatives:

[[**Ø**$_{GAP}$ … V_{MC}]$_{LOCAL\ DOMAIN}$ **HN**]$_{EXTERNAL\ DOMAIN}$

NON-SUBJ NON-SUBJ

built house

`the built house'

Diagram 1

1. The relative functions as the modifier of the relativized head nominal (HN)
2. The local domain headed by the verbal mixed category (MC) is a full clause
3. The relativized nominal bears a NON-SUBJECT, (OBJ, ADJUNCT...) relation to the gap
4. Gap simply a convention for indicating that something is missing in the local domain that bears a syntactic & semantic relation to the V_{MC}.

Q: How is a pronominal SUBJ expressed?

Pattern 1

M(ixed)C(ategory)-inflected relative: person-number marker (**PNM**) expresses SUBJ pronominal on the $V_{\text{MIXED CATEGORY}}$

1. [[Ø_{GAP} … V_{MC}-$\textbf{PNM}_{\textbf{SUBJ}}$]$_{\text{LOCAL DOMAIN}}$ HN]$_{\text{EXTERNAL DOMAIN}}$

Diagram 2

Eastern Armenian (IE):

2. [[(im) Ø_{GAP} … gnac'-əs-]$_{\text{LOCAL DOMAIN}}$ hovanocə]$_{\text{EXTERNAL DOMAIN}}$
   1SG.GEN buy.PERF.PART-1SG.SUBJ umbrella-DEF
   `the umbrella I bought'

Diagram 3

Observation: The PNM is *local* to the domain defined by the verbal modifier.

Pattern 2: The puzzlement begins in field methods

Possessive relative - person-number marking (**PNM**) expresses SUBJ pronominal on the HN:

[[$Ø_{GAP}$ … V_{MC}]$_{LOCAL\ DOMAIN}$ HN-**PNM**$_{SUBJ}$]$_{EXTERNAL\ DOMAINN}$

Western Armenian (IE):

3. [[(im) $Ø_{GAP}$ … koʁtsadz]$_{LOCAL\ DOMAIN}$ təraməs-**əs**]$_{EXTERNAL\ DOMAIN}$
   1SG.GEN stole-PERF.PART money-**1SG**
   'the money I stole '

Observation 1: The **PNM** seems to be in the wrong place, i.e., it bears a SUBJ relation to the V_{MC} heading the modifying clause. (runs afoul of *locality*)

Nominal Possessive Constructions: *Head-marking strategy*

4. (im) hin naver-**əs**
   1SG.GEN old letter-**1SG**
   `my old letter'

Q: Is the resemblance between these independent constructions fortuitous?

Possessive relative clauses

Hypothesis: Possessive relatives are instructive about the nature of grammar organization, and hence, the nature of grammatical architecture more broadly construed.

Question 1: *Where do these relatives occur?*

Observation 1: *They seem to appear only in genetically related and unrelated languages in Eurasia. (note: E. Armenian has MC-inflected relative, but W. Armenian has Possessive relative.)*

Question 2: *Do these distributions follow from any theory, i.e., are they predicted?*

***Observation 2**: Every theory can deploy its tools to redescribe these distributions: this is a minimal condition of adequacy for analysis.*

Basic Challenge: *Is there a way to motivate/explain why the Possessive Relative looks the way it does and is reliably identical to nominal possessive constructions wherever it occurs?*

Construction-theoretic (pattern-theoretic) approach

Basic General Strategy: *Provide detailed descriptions of cross-linguistically recurrent grammatical phenomena in all of their variety (without arbitrarily privileging any particular encoding).*

Constant Large Question: *What are the bounds of variability and what constrains it?*

> *Recombination of individual elements and ensembles of elements found in independent constructions are systemic redeployments of old elements within new configurations constrained by contingent factors and shaped by the uniquely pattern creating capacities, as well as cognitive and perceptual capacities of humans.*

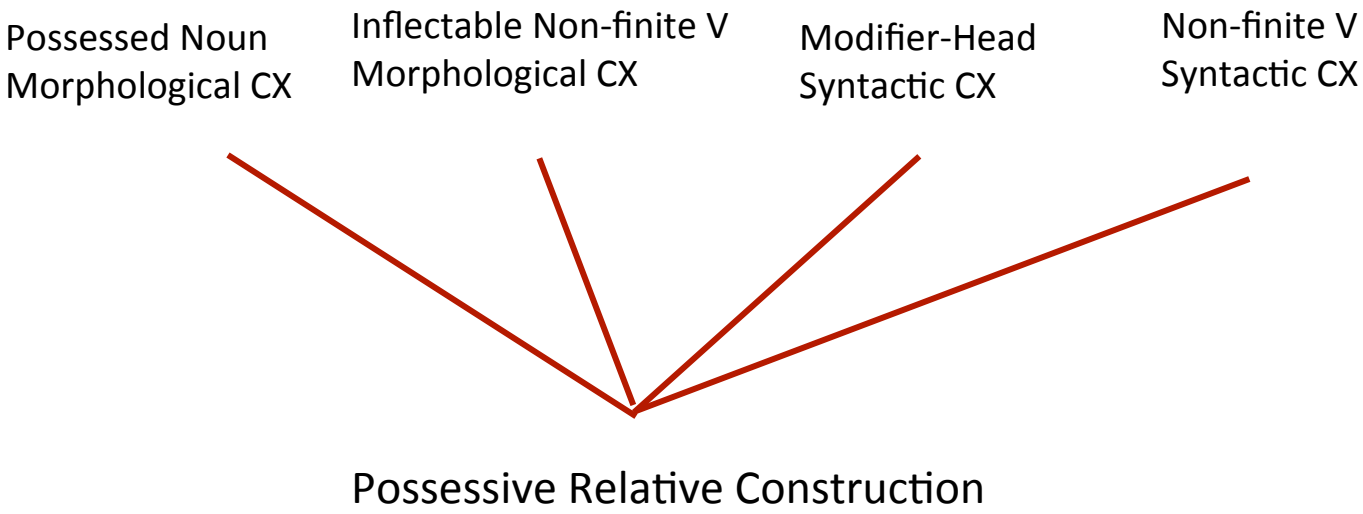
Note: Uniquely human pattern forming capacities does not entail that any particular pattern is entitled to privileged or universal status.

This alternative perspective turns apparently unruly rarity in grammar into instructive guidance about the nature of adequate linguistic architectures.

Pattern-theoretic gambit

Guiding intuition: Cross-linguistically, languages with Possessive Relatives (PRC) contain the same four independent licensing or cooperating constructions with language specific encodings.

Evident non-locality is the consequence of analogy with head-marking possessive constructions.



Pattern-theoretic gambit

Recombination of various elements found in independent morphological and syntactic constructions cooperate to probabilistically yield a systemic redeployment of a new configuration, the prenominal Possessive Relative.

P(c1, c2, c3, c4 | PRC) ≈ 1 If a language has PRC, it is potentiated by c1-c4.

Mongolic: Kalmyk, Dagur, Khalka Mongolian, Buriat; *Turkic*: Altai, Uzbek, Turkmen, Tuva, Shor; *Tungus*: Evenki; *Uralic*: Nganasan, Enets, Vogul, Mari; IE: *Western Armenian*; *Isolate*: Yukaghir

P(PRC | c1, c2, c3, c4) = ? If a language has c1-c4, can't predict presence of PRC, since there are numerous languages that have many or all of c1-c4, but don't have prenominal *Possessive* relative.

The challenge for the generalization: Try to locate data that **disconfirm** an explanation in terms of contributing constructions, since more confirming data doesn't help to establish it's viability.

Organization of the presentation

1. Addressing variation: Linguistics as natural science
2. The value of “anomalies”
3. The morphosyntax of Tundra Nenets prenominal relative clauses

1. Addressing variation

Linguistics can learn from the insights that are transforming biology:

Comparative biology provides sophisticated ways to think about commonalities that underlie biological diversity. Bringing order to that diversity is not about identifying universal elements, but about finding order in the pattern of similarity and difference. P. Griffiths *Our plastic nature* in Gissis and Jablonka eds. *Tranformations of Lamarkism. 2011:328*

One way of seeing: The central dogma in linguistics

Mainstream generative tradition guided by the laudable hypothesis that it is may be possible for grammatical theory to identify restrictions on possible languages. reflect on such goals as follows:

"...in part as a reaction to what was then felt as an unwarranted application of European grammatical categories and constructions to non-European languages, the common wisdom in American structuralism (epitomized in Joos 1957,96) was that "languages could differ from each other without limit and in unpredictable ways" so that each language should be studied "without any preexistent scheme of what a language must be". The rejection of these assumptions, which are still adopted today by many functionalists, was implicit throughout the history of generative grammar, and is made explicit in Chomsky's (2001,) **"Uniformity Principle"** (***"In the absence of compelling evidence to the contrary, assume languages to be uniform, with variety restricted to easily detectable properties of utterances."***). The cartographic approach follows this idea in assuming that all languages share the same principles of phrase and clause composition and the same functional make-up of the clause and its phrases. Cinque & Rizzi 2008:4

Variation enriches and confirms our favored beliefs about (universal) grammar design by requiring us to modify or create principles that make these basic assumptions more empirically responsible.

Another way of seeing: The importance of variation

(i) This strategy likely yields too narrow a view of what languages share as well as how different they can be (Evans and Levinson 2009 and Levinson and Evans 2010) and;

(ii) renders anomalous much of natural language variation, with very many languages departing from `uniformity', often doing so dramatically;

(iii) makes linguistic research depart sharply from modern research in the developmental complexity sciences.

Recall: "...one flees from it by stating the exact opposite."

One strategic way to avoid focusing on too much variation is to largely restrict the languages you look at and/or tightly circumscribe the set of phenomena you believe need to be explained, but this is known to be a seminal, strategic error.

"To exclude the evidence which their languages offer [Native American languages - FA] as to what the human mind can do is like expecting botanists to study nothing but food plants and hothouse roses and then tell us what the plant world is like." Whorf 1956: 215 (from Science and Linguistics)

2. The value of "anomalies"

"We do not treasure our exceptions, as William Bateson urged us to do, we autoclave [sterilize FA] them. S.Gilbert *The decline of soft inheritance* in Gissis and Jablonka eds. *Tranformations of Lamarkism. 2011:123*

Animal watchers, not butterfly collectors

> Despite their characterization as errors of nature,the anomalous, when properly considered, force us to confront and correct those errors in our thinking that often impede scientific insight and progress." M. Blumberg *Freaks of Nature: What anomalies tell us about development and evolution.* Oxford University Press 2009:13

Concerning the crucial role of naturalists in development of animal behavior studies:

> Rejecting the dissectors bench, the morguelike character of natural history museums, and academic zoology in general, these fieldworkers thrived outdoors. Furthermore, unlike most field naturalist before them, they went out into nature *not as specimen collectors, but rather as* ***animal watchers***. Burkhardt, *Patterns of Behavior* 2005:69

What did they study?

Charles Otis Whitman: What is your beast?

The studies of field naturalists transformed the study of animal behavior into the science of comparative psychology.

Guiding intuition: Recombinant potential in biological forms

Platypus: A furry, egg-laying, duck-billed, echolocating, venomous (when masculine) creature.

Two silly questions:

1. *Is the platypus more or less natural than the duck or the beaver?*
2. *Is the platypus a departure from a canonical duck or beaver, or is it the other way around?*

While all of the basic platypus properties are familiar, their alignments produce novel, historically contingent, and ecologically viable patterns.

The pattern is new, not the pieces (though, of course, the pieces themselves show variation).

"Anomalies" extend our notions of what is possible, and hence, natural.

Guiding intuition: Recombinant potential of grammar

"Anomaly" doesn't exist in language, rather, lurking behind it are anomalous presuppositions and convictionS that obtain in linguistic theory. A. Kibrik 2003:304

Grammatical platypuses: reuses of old pieces in new configurations for new purposes

Udi: Dynamics of language variation

Sometimes in the course of examining lesser studied languages an encoding strategy for a familiar empirical phenomenon seems surprising, even puzzling, given expectations developed on the basis of previous descriptive and theoretical research.

Harris 2007 identifies an unusual phenomena: Udi endoclisis, i.e., the positioning of person/number markers internal to complex verbal stems.

Consider the Udi verbal template in (5a) and its surface expression (1b):

5a. Incorporated element – person marker – light verb – tense/aspect/mood

b.	xoyš -	ne -	b -	sa
	request	3SG	do	PRES

`He begs'

the person/number marker ne - appears *intermorphemically,* internal to a complex, but morphophonologically cohesive single verbal word.

Dynamics of language variation

More spectacularly, in (2), the person number marker is interposed *intramorphemically* between the two segments that comprise the root `to drink' uɣ :

Harris 2007 identifies an unusual phenomena: Udi endoclisis, i.e., the positioning of person/number markers internal to complex verbal stems.

Consider the Udi verbal template in (6a) and its surface expression (6b):

6a. ROOT1 – person marker – ROOT2 - tense/aspect/mood

b.

u	ne	ɣ	sa
drink	3SG	drink	PRES

`He drinks'

Dynamics of language variation

Finally, the person number marker can appear as a enclitic under certain definable syntactic conditions.

7a. xunČi-muɣ-on xorag-ax häzir-q'un-b-esa
sister-pl-erg food-dat prepare-3pl-do-pres
`The sisters are preparing the food.'

7b. xunČi-muɣ-on xorag-ax-q'un häzir-b-esa
sister-pl-erg food-dat-3pl prepare-do-pres
`The sisters are preparing THE FOOD.'

7c. xunČi-muɣ-on-q'un häzir-b-esa xorag-ax
sister-pl-erg-3pl prepare-do-pres food-dat
`THE SISTERS are preparing the food.'

In (7a) the person/number marker is suffixed to the verbal predicate, in (7b) the marker gravitates to the focused OBJ of the clause, while in (7c) it appears on the focused SUBJ

The variable distribution of these person number markers is unusual: prior descriptive work on other languages concerning the distribution of agreement or pronominal markers did not document this phenomenon,while present theoretical proposals cannot claim to predict its existence.

Potentiating the possible (A. Harris 2007)

Harris' Hypothesis: Udi possesses an unusual construction because by accident its history presents an unusual combination of circumstances and events that probabilistically potentiate endoclisis.

Linguistic rarity tells us what is possible in natural language and that, as in biological systems, rarity, or what appears to be anomaly, is explicable in terms of the dynamics of patterns in the system within which the phenomenon occurs;

the "anomalous" may not simply be an oddball encoding of the familiar and reducible it;

it may actually be different, those composed of some familiar elements.

2.The morphosyntax of Tundra Nenets prenominal relative clauses (Ackerman & Nikolaeva *Descriptive Typology and Grammatical Theory* To appear)

In diverse languages considered separately, each for itself and in its own functioning, the analysis of the relative clause shows a formal structure ordered by a certain function that is not always visible. The problem is to uncover that function. This can be arrived at by observing that the relative clause often has, in a given linguistic system, the same formal marks as another syntagm of a denomination so entirely different that no one would think that they could be related. Guided by this formal analogy, the interpretation of the relative clause becomes possible in terms of function. It is the internal relationship which we propose to bring to light first. Emile Benveniste 1971

Tundra Nenets: the language particular encoding of cross-linguistic cooperating

Relevant grammatical features

Morphological:

1. Largely agglutinative with some cumulative markers
2. Polyfunctional set of PERSON NUMBER MARKERS (PNMS) signaling two-place relations: SUBJ/OBJ, POSS-OR/POSS-ED, LOCATION/LOCATUM
3. Morphotactics: N-CM-PX
4. 3 PERS; 3 NUM (SG, DU, Pl)
5. 7 nominal CASES

Syntactic:

1. SOP
2. Numerous non-finite clauses

This presentation is based on collaborative work with Irina Nikolaeva and Rob Malouf. Primary reseach on Tundra Nenets was generously supported by a Hans Rausing Language Documentation Grant 2003-2006 with Irina Nikolaeva and Tapani Salminen, and continues under Irina Nikolaeva who is writing a descriptive morphosyntax of the language. Elicitation was primarily in Russian and sometimes Nenets, since the Nenets are generally bi-lingual. We thank our primary consultants Galina Koreneva and Amda Lambdo.

Tundra Nenets: Possessive relative

Possessive relative - person-number marking (**PNM**) expresses SUBJ pronominal on the HN:

$$[[\ \emptyset_{GAP} \quad \ldots \quad V_{MC}\ ]_{LOCAL\ DOMAIN}\ HN\text{-}\mathbf{PNM_{SUBJ}}\ ]_{EXTERNAL\ DOMAINN}$$

Tundra Nenets (Uralic):

[[$\emptyset_{GAP}$ … ta-wi°]$_{LOCAL\ DOMAIN}$ te-**da**]$_{EXTERNAL\ DOMAIN}$
give$_{MC}$ reindeer-**3SG**
'the reindeer he/she gave'

Observation 1: The **PNM** seems to be in the wrong place, i.e., it bears a SUBJ relation to the V_{MC} heading the modifying clause. (runs afoul of *locality*)

Nominal Possessive Constructions: *Head-marking strategy*

serako te-**da**
white reindeer-**3sg**
`his/her reindeer'

Q: Is the resemblance between these independent constructions fortuitous?

Strategy of analysis

The most felicitous description as well as the most insightful explanation (motivation) for this phenomenon suggests a construction-theoretic approach to grammar analysis. (= pattern-based)

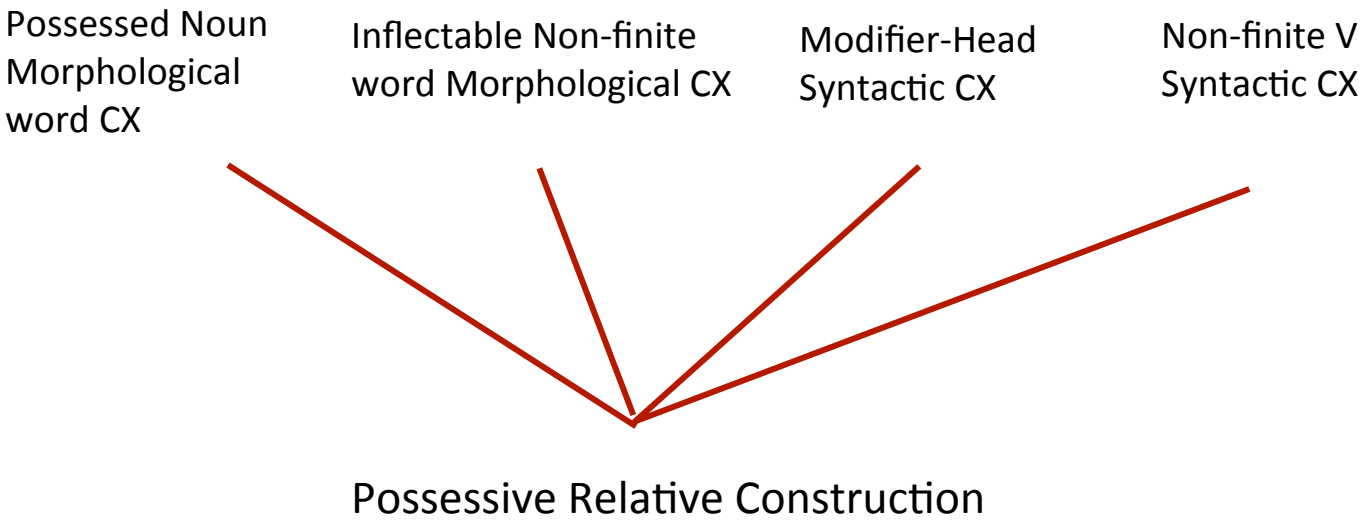
Similar in spirit to Harris' (2007) argument that systemic properties of grammars license 'odd' constructions such as Udi endoclisis and Georgian case marking.

Rather than looking at a single phenomenon in a lone language, we analyze an 'odd' construction **type** that appears in numerous related and unrelated languages.

Pattern-theoretic gambit

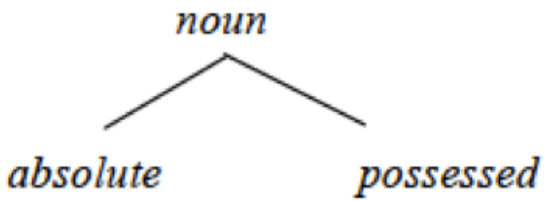
Guiding intuition: Cross-linguistically, languages with Possessive Relatives (PRC) contain the same four independent licensing or cooperating constructions with language specific encodings.

Evident non-locality is the consequence of analogy with head-marking possessive constructions.



Possessed noun morphological word construction (M1-CX)

Nouns are partitioned into two types:



`reindeer'

noun-absolute

noun-possessed

	SG	DU	3SG.DU
NOM	ti	te-x°h	te-x°yuda
ACC	ti-m	te-x°h	te-x°yuda
GEN	ti-h	te-x°h	te-x°yuta
DAT	te-n°h	ti-x°h **n´ah**	te-x°yuta **n´ah**
LOC	te-x°na	ti-x°h **n´ana**	te-x°yuta **n´ana**
ABL	te-xəd°	ti-x°h **n´ad°**	te-x°yuta **n´ad°**
PROL	te-w°na	ti-x°h **n´amna**	te-x°yuta **n´amna**

Partial PNM paradigms: singular possessed

The PNMS are markers of two-place relations: SUBJ/OBJ; POSS-OR-/POSS-ED; LOCATION/LOCATUM

	Sg	Du	Pl
1st	-w°	-m´ih	-waq
2nd	-r°	-r´ih	-raq
3rd	-da	-d´ih	-doh

Nominative sg. possessed

PNMS vary wrt. number and case of the POSS-ED

	Sg	Du	Pl
1st	-w°	-m´ih	-waq
2nd	-mt°	-t´ih	-mtaq
3rd	-mta	-t´ih	-mtoh

Accusative sg. possessed

	Sg	Du	Pl
1st	-n°	-n´ih	-naq
2nd	-nt°	-t´ih	-taq
3rd	-nta	-t´ih	-toh

Genitive sg. possessed

How do nominal possessives work?

In Tundra Nenets, as elsewhere in Eurasia, “possessive” constructions, are used to express a wide range of relations between two nominals.

“. . . a nominal in the genitive case used in the expression of adnominal determination designates not only possession in the substantive sense of this word, but also a relation (relevance), concerning a characteristic of one entity with respect to another entity. - Tereshchenko 1956:64

7a. te-w°
reindeer-1SG
‘my (one) reindeer‘

b. tí-n°
reindeer-Pl.1SG)
‘my (many) reindeer‘ (the one(s) I own, sit on..)

8. ti-h ya
reindeer-GEN soup
`deer soup’ (for the reindeer, made of reindeer...)

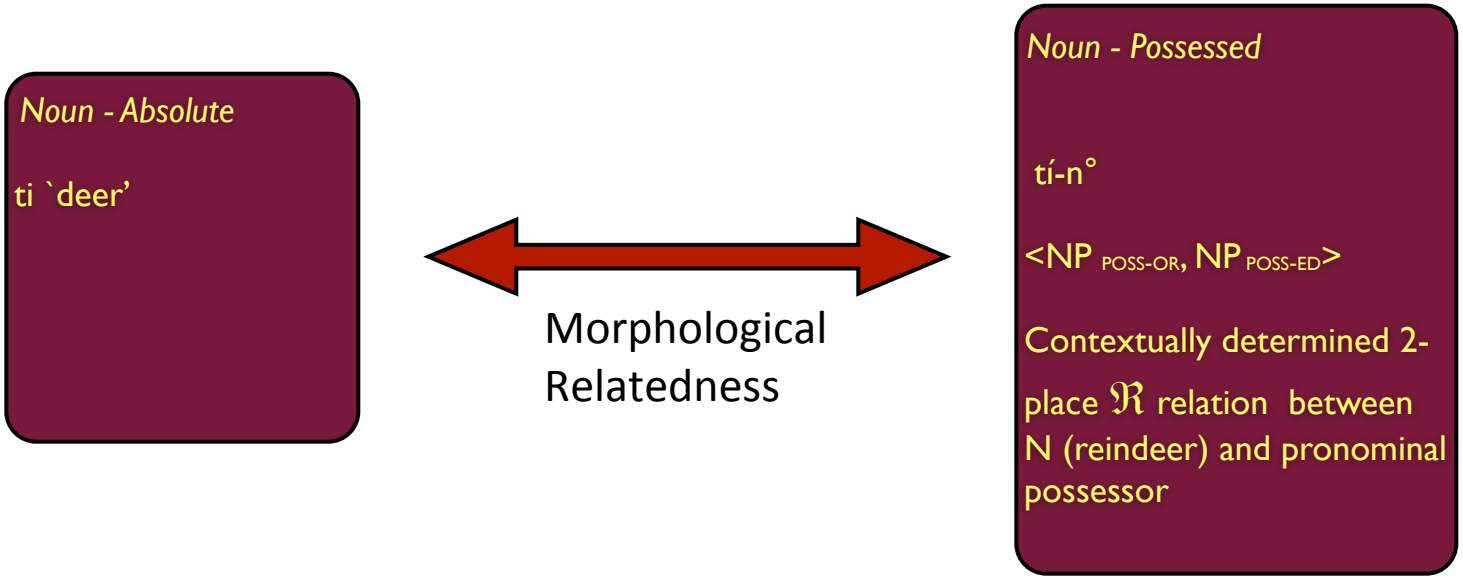
9. Wata-h ya
Wata-gen soup
`Wata’s soup’ (the soup he cooked/eats/like...)

“Possessive constructions” represent a vague two place associative relation ℜ between a ‘possessor’ and a `possessed’ arg(ument).

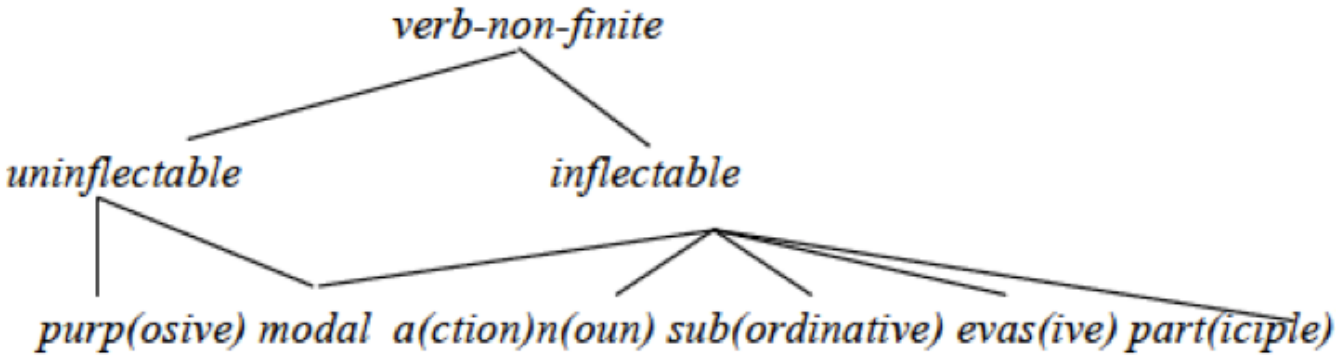
The semantics of possession

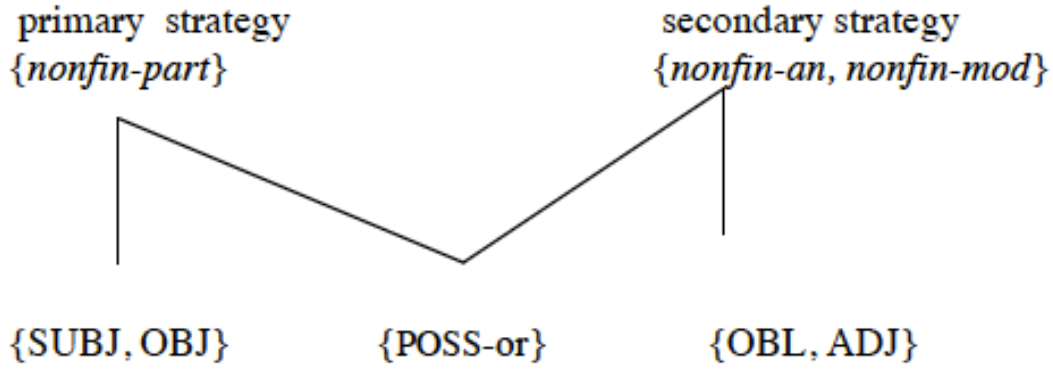
In EXTRINSIC POSSESSION (Barker, 1995; Jackendoff, 1977; Partee, 1997; Partee and Borschev, 2003) the precise nature of the associative relation is determined pragmatically or contextually:

Possessive inflected word provides a relation designated by $\Re$ which is contextually specified, while the related absolute form of the word does not:



Inflectable nonfinite morphological word construction (M2-CX)





Inflectable nonfinite morphological construction (M2-CX)

	`stand‘		`reindeer’	
	nonfin-an-perf (accusative)	*nonfin-an-perf* (ablative)	*noun-possessed* (accusative)	*noun-possessed* (ablative)
1SG	núqma-w°	núqma-x°dən°	te-w°	te-x°dən°
2SG	núqma-mt°	núqma-x°dənt°	te-mt°	te-x°dənt°
3SG	núqma-mta	núqma-x°dənta	te-mta	te-x°dənta
1DU	núqma-m´ih	núqma-x°dən´ih	te-m´ih	te-x°dən´ih
2DU	núqma-mt´ih	núqma-x°dət´ih	te-mt´ih	te-x°dət´ih
3DU	núqma-mt´ih	núqma-x°dət´ih	te-mt´ih	te-x°dət´ih
1PL	núqma-waq	núqma-x°dənaq	te-waq	te-x°dənaq
2PL	núqma-mtaq	núqma-x°dəntaq	te-mtaq	te-x°dəntaq
3PL	núqma-mtoq	núqma-x°dəntoh	te-mtoq	te-x°dəntoh

Inflectable non-finites and possessive relatives

Inflected non-finite perfective action nominal: PNM on non-finite; lexical NP GEN

10. [yukon°h to-wa-m**t°**] ŋət'elŋa **SUBJ PRO PNM**
there come-PERF.AN-ACC.**2SG** start.waiting.3SG
'He started waiting for you to come here.' (T 389)

11. [**sira-h** xolka-qma-xəd°] ya yil'eŋkə° **lexical NP SUBJ**
snow-GEN melt-PERF.AN-ABL earth revive.3SG
'After the snow melts, the earth revives.' (T 142)

Possessive relative: PNM on relativized noun; lexical NP GEN

12. [yəda-wewaq] noxa-**naq** púmna yal'a-h **SUBJ PRO PNM**
shoot-PERF.PART.**1PL** Arctic.fox-GEN.1PL after day-GEN
yampən°h n'otə°-waq
long chase-1PL
'All day long we chased the Arctic fox we had shot.' (T 308)

13. [n'a-n**ta** xet°-wi°] wada-n°h tarkey°-q **lexical NP SUBJ**
f**riend-GEN.3SG** say-PERF.PART word-DAT cavil-REFL.3SG
'He caviled at the word said by his friend.' (T 634)

Interim summary

There are two morphological word constructions:

1. Nominal possessive word

2. Non-finite word: several types

In order to interact they have to combine in a syntactic construction

Modifier-head syntactic construction

Modifiers obligatorily agree with the head for number (singular/dual/plural)

Modifiers optionally agree with the case of the head and the person/number of the possessor (see Nikolaeva 2008).

(11) (pidərᵒ) serako(**rᵒ**) te-**rᵒ**
you.SG white-**2sg** reindeer-**2sg**
`your (sg) white reinder'

(12) (pidərᵒ) serako-**q**/serako-dᵒ tí-**dᵒ**
you.sg white-**pl**/white-**pl.2sg** reinder-**pl.2sg.**
`your (sg) white deer (pl)'

Optional concord (agreement) suggests that words need to be provided with information concerning CONCORD and the relevant values for this feature.

yəda-we-(m´i) ŋaqŋo-m´i
shoot-PERF.PART-1SG duck-1SG
'the duck I shot'

Non-finite modifiers show optional concord, just like simple adjectival modifiers.

Intuition: Hypothesis of semantic and syntactic proxy

The POSSESSIVE RELATIVE strategy exploits the vagueness of the ℜ relation, restricting its semantics and syntax to the semantics and syntax of the non-finite verbal modifier.

[[$\emptyset_{GAP}$ … ta-wi°]$_{LOCAL\ DOMAIN}$ te-da]$_{EXTERNAL\ DOMAIN}$
give$_{MC}$ reindeer-3SG
'the reindeer he/she gave'

The possessed nominal `deer' is associated with a relation ℜ whose value is determined by the meaning of the non-finitie verbform `give', i.e., ℜ is lexically restricted within the construction.

PNM interpreted as bearing the semantic role "giver" and the grammatical relation SUBJ. (*often an implicature that the modified N is "possessed" by the SUBJ.*)

The vague semantics of the possessive nominal provides the opportunity for the relative construction to specify a meaning supplied by the non-finite verb.

Something you've probably wondered about

Question: What happens when the modified nominal actually has a possessive reading?

my **house** ***you*** **built**

After all, the possessive nominal interpretation is usurped in the possessive relative construction!

Competition resolution in Tundra Nenets

SUBJECT POSSESSOR

[[ØGAP … syerta-myi]LOCAL DOMAIN ŋano-r]EXTERNAL DOMAIN

made-1SG boat-2SG

`your boat I made'

PNM in this inflected non-finite form is pronominal SUBJ (same as in V_{MC} inflected languages (= Pattern 1), which otherwise does not occur in Tundra Nenets.

PNM here not a reflex of concord but signals the pronominal SUBJ.

Other strategies for resolving conflict

Unlike the cross-linguistic commonality of word and phrasal constructions that license the expression of possessive relatives, there is significant variation (both between and within languages) in how they resolve the problem created by interpreting prenominal relatives as instances of the possessive construction.

More variants

Western Ostyak: Always pro-drop, except in possessive relatives with possessed head nominals.

[ma naŋ-e:n mij-ən] soxam-l-an
I you-DAT give-MC thread-pl.2SG
`your threads I gave to you'

Western Armenian: V_{MC} in active voice when modified nominal is not possessed, but passive when it is.

(ku) (im) goɣme-s pats-v-adz tur-ət
you.SG.GEN I.GEN by-1SG open-PASS-PART door-2SG
`your door was opened by me'

Pleasing cross-linguistic result

By assimilating possessive relatives to the class of constructions analogically based on nominal possessive constructions and modification constructions,

(i) proposal is consistent with independent observations that these factors play important roles in relative clause constructions beyond the Eurasian possessive relatives where relatives are often similar to possessives.

If so, then it renders possessive relatives even less odd, since their non-locality effects are simply the consequence of this more broadly attested analogy:

when expressed in a language with head-marking possessive constructions, i.e. the common association of relative, possessive, and modification cross-linguistically will simply result in possessive relatives in languages where the possessive is expressed by a head-marking strategy.

The dynamics of the system of constructions produces non-locality effects.

Summary

Hypothesis that grammar is a complex system in which interactions between its many dimensions and their ingredients produce a canalizing or directing influence concerning what sorts of grammar properties and constructions may arise over time.

Potentiating influence rather than a deterministic one since in many instances structures permitted by particular interactions simply do not occur, though they could have, given different contingent conditions.

Certain structures possess an exceedingly low probability of arising, since systemic interactions are unlikely to produce them. (cf.Harris 2007)

Text

Hypothesis: A series of contingent, systemic pathways, sometimes guided by analogy, together with human cognitive capacities probabilistically determine observed outcomes.

Q: What principles may guide the organization of syntactic and morphological systems and what is the nature of the resulting organization?

Don't know for the organizational system of syntax, but in recent work with colleagues (Blevins, Bonami, Finkal, Malouf, Sims, Stump, among others) we have some ideas about morphology.

Appendix: Some extra observations

It comes down to this

The stark caricature (Chomsky. 2011. Language and Other Cognitive Systems. What Is Special About Language? *Language Learning and Developmen*t, 7:4, 263-278.)

Approach 1	Approach2
Good Guys	Bad Guys
Explanation	Description
Scientists	Butterfly collectors
Main Stream Generative Grammar	Everything else
Language exists	Language does not exist
Grammar	Communication
Results	No results
The rare insightful few	The misled and misleading many

Since Approach 2 is simply a higgeldy-piggeldy assortment of alternatives to MGG, the contrast is unilluminating, but it is worth briefly reviewing Approach 1.

Alignments with big issues (adapting Stiles 2009 for developmental psychology)

Issue	Nativist	Developmental Science
Role of experience: core concepts versus acquired concepts	Core concepts constitute a small but essential subset of constructs. Core concepts are present in the absence of direct experience.	Concepts develop from the interaction of basic sensory and motor abilities and experience with the world. There are no core concepts.
Domain specific versus domain general (innate versus acquired modularity)	Core concepts are domain-specific and encapsulated from other imformation sources (i.e., they are modular from the start).	Domain general learning mechanisms underlie conceptual development. Modularity of systems is the normal product of development, not its startstate.
Invariance	One mark of a core concept is that it is constant over a span of development.	Because knowledge is emergent and constructed by the child, change is across development.
Universality	Core concepts are constant across cultures.	Ubiquity does not entail innate origination. Adaptation to universal conditions can produce common constructs.
Triggering versus induction	Environmental inputs serve to "trigger" the availability of core concepts.	Concepts are acquired and refined through induction, i.e., hypothesis formation and testing
	Evolutionary Psychology/ Developmental Biology/ Development Psychology/ Mainstream Generative Grammar	(Neuro-)constructivist/ Developmental Psychobiology/ (Ecological) Evolutionary Developmental Biology/ Pattern theoretic grammars/ Information-theoretic grammars