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Variable argument marking and the difference between general and particular linguistics

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Overview:

- An observation
- A generalization
- Take-home message 1
- Take-home message 2

\+ **The main part of the talk**

An observation:
Argument coding splits and argument alternations are often cross-linguistically systematic.

differential object marking (split P marking)

(1) Moro (a Heiban language of Sudan)
a. *ŋal:o g-ʌr:ʌŋətʃ-ú kúku-**ŋ***
Ngallo SM-teach-PFV Kuku-ACC
'Ngallo taught Kuku.' (Ackerman et al. 2017: 5)

b. *ŋ^{w}-kúk:u-(*ŋ)=ki n=égə-bwáŋ-á*
FOC-Kuku-(ACC)-REL COMP-1SG-like-IPFV
'It's Kuku that I like.' (Jenks & Sande 2017: ex. (10))

dative alternation (differential R marking)

(2) Mandarin Chinese (Li & Thompson 1981: 376)
a. *Wǒ sòng-le tā yi píng jiǔ.*
I give-PFV 3SG one bottle wine
'I gave him a bottle of wine.'

b. *Wǒ sòng-le yi píng jiǔ **gěi** tā.*
I give-PFV one bottle wine to 3SG
'I gave a bottle of wine to him.'

passive alternation (demotion of A-argument)

(3) Russian
a. я часто открываю дверь
ja často otkryvaju dver'
I.NOM often open door
'I often open the door.'

b. дверь часто открывается
*dver' často otkryvaet-**sja** **mn-oj***
door often open-PASS I-INS
'The door is often opened by me.'

split ergativity (differential A marking)

(4) Nez Perce (Deal 2016: 534)
a. *'Iin 'ipéwi-se Méli-ne.*
I.NOM seek-IMPF Meli-ACC
'I am looking for Meli.'

b. *'Ip-**ním** pée-'péwi-se Méli-ne.*
she-ERG 3>3-seek-IMPF Meli-ACC
'She is looking for Meli.'

A generalization:
The role-reference association universal

In a recent paper, I have proposed that many argument-marking splits fall under the following high-level generalization:

> **The role-reference association universal** (Haspelmath 2021a)
> Deviations from usual associations of role rank and referential prominence tend to be coded by longer grammatical forms if the coding is asymmetric.

Role rank:	A > P	(agent ranks over patient)
	R > T	(recipient ranks over theme)
Referential prominence:	1/2 > 3	(person scale)
	animate > inanimate	(animacy scale)
	pers. pronoun > full nominal	(nominality scale)
	def > indef	(definiteness scale)
	topical > nontopical	(givenness scale)

High role rank is **usually associated** (in texts) with referential prominence, e.g.
– A is usually animate, personal pronoun, definite, ...
– P is usually 3rd person, indefinite, nontopical, ...
– R is usually 1st/2nd person, animate, definite, ...
– T is usually 3rd person, full nominal, indefinite, ...

Cf. *They chased the dog.* vs. *The dog chased them.*
A P A P

(usual association) (unusual association)

Take-home message 1
Efficiency explanations of argument coding asymmetries are surprisingly successful.

– A grammatical system that codes frequently occurring (and thus expected) meanings with shorter forms (or zero) is more **efficient**.

– Languages are under a constant evolutionary pressure for efficiency of coding.

– The role-reference association universal is a special case of a much larger trend:

Frequently occurring meanings are normally short or zero when the coding is asymmetric, for reasons of coding efficiency (Haspelmath 2021b).

Take-home message 2
We must distinguish between general linguistics (g-linguistics) and theories of particular languages (p-linguistics).

Efficiency explanations are successful as g-theories, but irrelevant to p-descriptions.

P-descriptions are not atheoretical (Haspelmath 2021c), but they are independent of g-theories.

THE MAIN PART:

- More about variable argument marking universals
- More about the efficiency explanation of asymmetric coding
- More about the distinction between g-linguistics and p-linguistics

1. Variable Argument marking universals (U1-U6)

(U1) Differential P flagging (differential object marking, DOM) universal
If a language has an asymmetric split in P flagging depending on some prominence scale, then the special flag is used on the prominent P-argument.

More examples:

(5) Abruzzese (Italo-Romance variety; D'Alessandro 2017)

a. *So vistə a mme / a tte.*
be.1SG seen ACC me / ACC you
'I have seen myself / you.'

b. *Semə vistə a nnu / a vvu.*
be.1PL seen ACC us / ACC you
'We have seen us / you.'

c. **So vistə a Marije / a jissə / a quillə.*
be.1SG seen acc Maria / acc them / acc them
('I have seen Maria / them.')

(6) Purepecha (Mexico; Capistrán Garza 2020: 13)

b. *José xatá-sïn-ti tekéchu(-ni).*
José ride-HAB-3.IND horse(-OBJ)
'José rides horses.' (indefinite P)

a. *Tarháta-s-p-ti básu-**ni**.*
lift-PRF-PST-3.IND glass-OBJ
'He lifted the glass.' (definite P)

(7) Nez Perce (Sahaptian; Deal 2006: (1), (2), (6))

a. *Iin-im ciq'áamqal hi-p-teetu núkt.*
1SG-GEN dog 3SUBJ-eat-HAB meat
'My dog eats meat.' (nonspecific, narrow-scope) (Deal 2006: "antipassive")

b. *Iin-im ciq'aamqal-nim pée-p-teetu nukú-**ne**.*
1SG-GEN dog-SUBJ 3>3-eat-HAB meat-OBJ
'My dog eats meat.' (specific, wide-scope)

c. *Nuun 'e-wewluq-siix Harold*(-ne) poxpók'liit-ki.*
1PL 3.OBJ-want-INC.PL Harold-OBJ ballgame-INS
'We want Harold for the ballgame.' (specific; object marking obligatory)

(U2) Differential R flagging (differential recipient marking) universal
If a language has an asymmetric split in R flagging depending on some prominence scale, then the special flag is used on the nonprominent R-argument.

(8) French

a. *Je te le donne.*
I you.DAT it give
'I give it to you.' (2nd person R)

b. *Je le **l-ui** donne.*
I it her-DAT give
'I give it to her.' (3rd person R)

(9) Wolof (Atlantic; Becher 2005: 19)

a. *Jox naa xale-bu-jigéén ji benn velo.*
give 1SG girl DEF INDF bicycle
'I gave the girl a bicycle.' (definite R)

b. **Jox naa benn xale-bu-jigéén velo bi.*
give 1SG INDF girl bicycle DEF
('I gave a girl the bicycle.')

c. *Jox naa velo bi **ci** benn xale-bu-jigéen.*
give 1SG bicycle DEF to INDF girl
'I gave the bicycle to a girl.' (indefinite R)

(U3) Differential A marking (split ergativity) universal
If a language has an asymmetric split in A flagging depending on some prominence scale, then the special flag is used on the nonprominent A-argument.

(10) Kham (Trans-Himalayan; Watters 2002: 67)
a. *ŋa:-Ø la: ŋa-səih-ke*
I-Ø leopard.ABS 1SG-kill-PFV
'I killed a leopard.' (1st person A)

b. *no:-**ye** la: səih-ke-o.*
he-ERG leopard.ABS kill-PFV-3SG
'He killed a leopard.' (3rd person A)

(11) Umpithamu (Pama-Nyungan; Verstraete 2010: 1638, 1641)
a. *manta eentinti(-**mpal**) watyu-n =iluwa*
child small(-ERG) spear-PST =3SG.NOM
'The little child speared it.' (animate A)

b. *ngoki-**mpal** ungka-n =antyangana*
water-ERG wet-PST =1PL.EXCL.ACC
'The water made us wet.' (inanimate A)

(12) Central Tibetan (Tournadre 1995: 264)
a. *khōng khāla' so-kiyo:re'*
he food make-IPFV
'He prepares the meals.' (topical A-argument, i.e. prominent)

b. *khōng-**ki'** khāla' so-kiyo:re'*
he-ERG food make-IPFV
'HE prepares the meals.' (focused A-argument)

(13) Tima (Katloid, Sudan; Schneider-Blum & Hellwig 2018: 973)
a. *kʌ́wúh á-hʌ̀mbɨ̀r-ì tíyʌ́*
stone 3.PRF-trip.up-TR Tiya
'The stone tripped Tiya up.'

b. *tíyʌ́ á-hʌ̀mbɨ̀r-ì **ŋ̀**=kʌ́wúh*
Tiya 3.PRF-trip.up-TR ERG=stone
'A stone tripped Tiya up.' (indefinite, focused)

(U4) Passive voice universal
If a language has an alternation between a transitive construction and a verb-coded intransitive construction with an oblique-flagged agent (= a passive construction), then

the special construction is used when the A-argument is not prominent and/or the P-argument is prominent.

(14) Kannada (Dravidian; Sridhar 1989: 214)
a. *huḍugaru ba:vuṭ-annu ha:ris-idaru*
boys flag-ACC fly-PST.3PL.HUM
'The boys flew the flag.'

b. *huḍugar-**inda** ba:vuṭa ha:ris-alpa-ṭṭitu*
boys-INS flag.NOM fly-INF.PASS-PST.3SG.N
'The flag was flown by the boys.'

For the topicalization function of passives cross-linguistically, see Siewierska (1984), Shibatani (1985), and much subsequent work.

Passives have special marking both on the agent and on the verb. **Inverse constructions** have special marking only on the verb, but they also occur when "the A-argument is not prominent and/or the P-argument is prominent", e.g.

(15) Ojibwe (Algonquian; Rhodes 1994: 431)
a. *Ngii-waabm-aa-naan-ig.*
PST-see-DIRECT-1PL-3PL
'We saw them.' (1 > 3)

b. *Ngii-waabm-**ig**-naan-ig.*
PST-see-INVERSE-1PL-3PL
'They saw us.' (3 > 1)

(U5) Dative alternation universal
If a language has an alternation between a double object construction and a construction with a dative-flagged recipient, then the special flag is used when the R-argument is not prominent and/or the T-argument is prominent.

(16) English
a. *She gave her brother money.* *(?She gave a child the money.)*
b. *She gave the money to a child.* (*?She gave money to her brother.*)

(17) Brazilian Portuguese (Salles & Scherre 2003: 155)
a. *Ela deu um drinque **pra** ele.*
she gave a drink to him
'She gave a drink to him.' (T specific)

b. *O Ceará só deu alegria **a** sua torcida.*
the Ceará only gave joy to its fanclub
'The Ceará team has only given its supporters pleasure.' (T non-specific)

All these universals (and quite a few more) are special cases of the more general universal (U6):

(U6) The role-reference association universal (Haspelmath 2021a)
Deviations from usual associations of role rank and referential prominence tend to be coded by longer grammatical forms if the coding is asymmetric.

Role rank:	A > P	(agent ranks over patient)
	R > T	(recipient ranks over theme)

Differential object marking:	the P is unusually indefinite/inanimate
Differential R marking:	the R is usually definite/animate
Split ergativity:	the A is usually topical and first/second person
Passive:	the A is usually topical, and the P is non-topical

Hyman (1983: 78)
"Languages show a tendency to associate the higher feature values [1st/2nd > 3rd, human > inanimate, definite > indefinite] with the higher semantic roles in the hierarchy: agent > recipient/benefactive > patient > instrument."

Referential prominence:	1/2 > 3	(person scale)
	animate > inanimate	(animacy scale)
	pers. pronoun > full nominal	(nominality scale)
	definite > indefinite	(definiteness scale)
	topical > nontopical	(givenness scale)

- What is it that unites "referential prominence" of various kinds?
- What is it that unites "role rank"? A > P, R > T

The answer to these questions is interesting, but not crucial for the efficiency-based explanation. What matters is that role rank and referential prominence are associated in this way in language use – and this claim is eminently testable.

2. The efficiency theory of asymmetric coding: five ingredients (A-E)

(A) **asymmetric coding**

a situation in which two contrasting grammatical patterns differ only in that one of the patterns shows shorter coding and the other one shows longer coding.

(A1) asymmetric coding of two contrasting **grammatical meanings**:

a. singular – plural	(*book-Ø – book-**s***)
b. present tense – future tense	(*Ø go – **will** go*)
c. allative – ablative	(*to – **from***)

(A2) asymmetric coding differentiating between two **contexts** (a-b),
or two **subclasses** (c-d)

a.	patient:	indefinite – definite	(Purepecha *basu – basu-**ni***)
b.	imperative:	2nd person – 3rd person	(English *Ø come!– **let** her come!*)
c.	reflexive:	extroverted – introverted	(English *shaved Ø – hated **himself***)
d.	adpossessive:	inalienable – alienable	(Old Italian *moglia-ma – terra **mia***)
			'my wife' 'my land'

(B) **principle of efficient coding**

Languages tend to have patterns that require little speaker effort for meanings that are easy to infer by the hearer (e.g. Zipf 1935; Gibson et al. 2019).

(C) **the causal chain** of the efficiency theory of asymmetric coding

(frequency →) predictability → shortness of coding

(D) Languages are under a constant **evolutionary pressure** for efficiency of coding.

(E) **the form-frequency correspondence universal** (Haspelmath 2021b)

When asymmetric coding is cross-linguistically systematic, the shorter member of the contrasting pair is universally more frequent, and when one member is universally more frequent, it tends to be shorter.

(original formulation in Haspelmath 2008)

"Evolutionary pressure" refers to speaker biases that may lead to language change in the long run. Speakers want to get their ideas across with minimum effort, so they have a tendency to shorten predictable elements, and lengthen expressions for less predictable meanings.

e.g.	*Beijing Daxue > Beida*	'Beijing University'
	Freie Universität Berlin > FU	'Free University of Berlin'

universal grammar	*> UG*
? efficiency theory of asymmetric coding	*> ETAC*

There is a rich literature on diachronic change in phenomena such as

– differential object marking
– dative alternation
– present/future tense
– alienable-inalienable contrast
– nonreflexive-reflexive

showing that languages often change over time in the direction of efficient coding

But are the changes **driven** by the desired efficiency, maybe in a "teleological" way?

Or are they **the outcome of independently caused changes**? (cf. Cristofaro & Zúñiga 2018; Cristofaro 2019; "source-oriented typology", as in Blevins 2004; Bybee 2006).

My answer:

- There is no teleology, but **convergent evolution**.
- This is clear from **multi-convergence** of diachronic pathways

In biology, we see convergent adaptations for diverse ecological niches –
we don't see this in linguistics in the same way, because all languages basically occupy the same niche: In different cultures, we talk about our lives in very much the same way.

The selective forces that lead to the differential transmission of linguistic variants are **functional-adaptive constraints** (Haspelmath 2019).

A striking example of multi-convergence:

differential object marking in **Spanish**	differential object marking in **German**
Veo Ø la película.	*Ich sehe den Film-Ø.*
Veo a la lingüista.	*Ich sehe den Linguist-en.*
< dative preposition *a* (< Latin *ad*), extended to accusative use	< remnant of an old accusative ending, preserved only in a subset of animate nouns

Diverse pathways of change converge on a similar outcome, apparently in the service of efficient coding. The causal factor does not lie in the mechanisms of change.

The idea of "efficiency" or "economy", and of predictability/expectedness leading to short coding, is of course old, not only in the discussion of word length (Zipf 1935), but also in discussions of argment marking patterns, e.g.

> "Algonquian languages are well known for having a construction in which the morphology of the verb suggests a thematic alignment **reversed from what is expected**." (Rhodes 1994: 431)

> "Since these semantic features [such as human/animate] usually correlate with dative and benefactive case relations, some languages **may exploit this redundancy** for syntactic purposes." (Hawkinson & Hyman 1974: 147)

And I am not the first person to note that the exact explanation for the associations in language use is not crucial for the explanation:

> "It is not any more important to our understanding of the grammar to know at this time WHY subjects tend to be definite (or more definite) than it is to know why voiced obstruents lower a following pitch... The Grammar need only detect that there is a clustering of definiteness and subjecthood..." (Hyman 1983: 72)

3. The distinction between p-linguistics and g-linguistics

3.1. Particular linguistics vs. general linguistics

I have long wondered what the terms "theory" and "explanation" mean in linguistics, and I have been confused again and again. Now here is a proposal for clearing up the confusion (see Haspelmath 2021c).

Linguists are interested in at least two different kinds of explanations (= explanatory theories):

(A) explanations of **speaker behaviour**	(B) explanations of **language structures**
("Why do people talk the way they talk?")	("Why are languages the way they are?")
Most of the time, linguists describe/analyze particular languages; – such descriptions provide us with theories of speaker behaviour.	But in addition, we want general theories of language structures (g-theories) that **explain the general properties** of human language structures
e.g. "A grammar of the language L is essentially a theory of L." (Chomsky 1957: 49)	
(p-theories: theories of **particular** languages)	(g-theories: theories of Human Language in **general**)

3.2. P-generalizations are independent of g-generalizations

We often observe language-internal generalizations that have no obvious relevance to to other factors, e.g.
- unnatural morphophonological rules
- declension classes
- "morphomic" patterns
- rigid templatic ordering
- ...

P-linguists want to capture such patterns,

e.g.
- German verb-second order, elegantly described by a movement operation to second position
- Bantu verb suffix ordering, elegantly described by the CARP template (causative-applicative-reciprocal-passive; Hyman 2003)

But what is the relevance to g-linguistics? Possibly none.

(A) Accusative case in Moro (a Heiban language of Sudan)

(1) Moro

a. *ŋal:o g-ʌr:ʌŋətʃ-ú kúku-**ŋ***
Ngallo SM-teach-PFV Kuku-ACC
'Ngallo taught Kuku.' (Ackerman et al. 2017: 5)

b. *ŋ$^{w'}$-kúk:u-(*ŋ)=ki n=égə-bwáɲ-á*
FOC-Kuku-(ACC)-REL COMP-1SG-like-IPFV
'It's Kuku that I like.' (Jenks & Sande 2017: ex. (10))

Moro Accusative Case Rule (Jenks & Sande 2017: (2))
If there are two DPs in a phase, and DP_1 c-commands or contains DP_2, value DP_2 as accusative.

This covers a variety of situations, where Moro nominals may show the Accusative suffix *-ŋ*:

(19) a. coordination
[kúk:u na ŋál:o-ŋ] l-aŋer-á
Kuku-ACC and Ngalo-ACC CL-good-ADJ
'Kuku and Ngalo are nice.' (4a)

b. adpossessor nominal
lə́ ŋge kúk:u- ŋ
mother Kuku-acc
'mother of Kuku' (6a)

c. both objects of ditransitives (see also Ackerman et al. 2017)
éga-nac-ó ŋál:o-ŋ kója-ŋ
1SG-give-PFV Ngallo-ACC Koja-ACC
'I gave Ngallo to Koja.' / 'I gave Koja to Ngallo.' (8)

d. no accusative when the P-argument is focused (see (1b) above)

Thus, the Moro Accusative Case Rule is a good **p-grammatical generalization**, but it has no clear relevance to general linguistics.

– The rule cannot be part of the innate grammar blueprint ("UG"), because it is Moro-specific.
– While it is possible to describe Moro in this way, there are many different descriptive possibilities, e.g. five different rules.
– Even the weaker suggestion that "dependent case" (or "configurational case") offers many possibilities for elegant description (Baker 2015) is not convincing, because Baker's book is extremely complex (and thus inelegant; see Haspelmath 2018)

Relating to Moro Accusative Case Rule to g-linguistics would make sense if it contributed to understanding a **general causal factor**, e.g.

– efficiency of asymmetric coding (see above)
– the innate grammar blueprint ("UG"), by illustrating how innate factors constrain grammars

Conclusion:

– **language-internal generalizations may be irrelevant to cross-linguistic patterns**
– general causal factors must eventually be supported by evidence from language universals ("General linguistics must be based on universals")

(B): Split ergativity in Nez Perce (Deal 2016)

Locuphoric subjects (1st and 2nd person) do not bear ergative case in Nez Perce:

(20) Nez Perce (Deal 2016: 534)

a. *'Iin* *'ipéwi-se* *Méli-ne.*
I.NOM seek-IMPF Meli-ACC
'I am looking for Meli.'

b. *'Ip-**ním*** *pée-'péwi-se* *Méli-ne.*
she-ERG 3>3-seek-IMPF Meli-ACC
'She is looking for Meli.'

Deal (2016) finds that the rules for ergative marking in Nez Perce must be quite different from those of other ergative-marking languages (e.g. Kham, Marathi, Udi, Dyirbal; see Legate 2014b).

– Nez Perce split ergative marking extends to the entire nominal
– In other languages (Kham, Marathi, etc.), the split affects only personal pronouns, and can be treated as morphological syncretism.

Deal (2016: 560) concludes: "Ergativity is not a unified phenomenon" –
Languages use **different grammatical mechanisms**, but the resulting outcome in terms of argument marking is similar.

(Similar to multi-convergence in terms of mechanisms of change; Haspelmath 2019)

Again:
– a language-particular generalization (about syntactic vs. morphological locus of the rule) is irrelevant to the cross-linguistic pattern

Deal (2016: 560) agrees:

> "It seems quite reasonable to conclude that **hierarchy effects ultimately must arise external to the grammar itself, from the organization of human cognition and communication** – a conclusion in line with various approaches that locate the origin of these effects **extra-grammatically** (i.a. Silverstein 1976, Dixon 1979, DeLancey 1981, Newmeyer 2002, Haspelmath 2008).

Moreover, she draws the more far-reaching conclusion that

> "the study of hierarchy effects and their variation belongs not to the study of UG proper, but to the investigation of **how narrow UG principles interact with broader mechanisms** to produce grammatical diversity." Deal (2016: 561)

A similar conclusion is arrived at by Legate (2021: §4), in her study of "non-canonical passives":

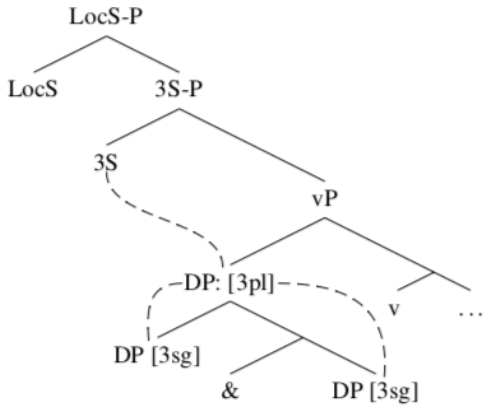
> "our theory must allow these properties of the (canonical) passive to vary independently, rather than positing necessary dependencies between them. This is indeed achieved on an approach wherein there is **little or no innate information specific to voice in the language faculty**, but rather the properties of each voice construction **must be learned on the basis of evidence**. For an impoverished language-specific innate component, see, for example, Fitch et al. (2005), who argue on independent grounds that UG consists only of the operation Merge."

But if p-linguistic descriptions are not (necessarily) relevant to g-theoretical explanations, and if the earlier idea of a rich innate grammar blueprint is abandoned, then do we need highly complex p-analyses?

3.3. Consequences for the everyday practice of p-syntax (and g-syntax)?

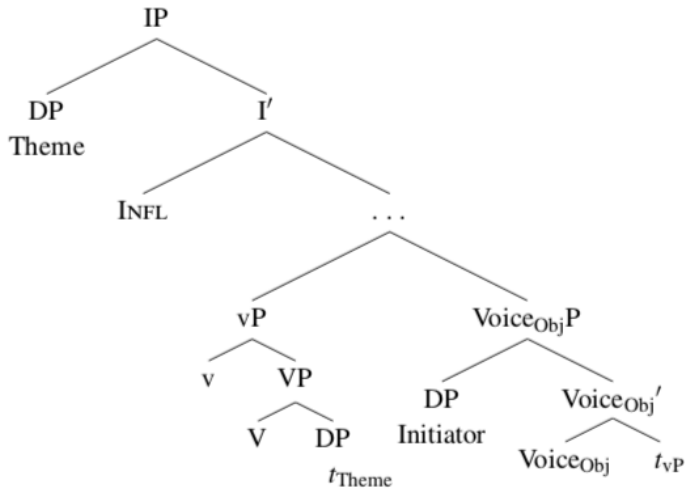
Given that we do not need UG to rule out unattested systems (= to explain language universals), it is no longer clear why grammatical analyses must make use of the complex machinery that we often find in generative syntax papers, e.g.

(59)



(Deal 2016)

(98) *Object voice with smuggling*



(Legate 2014a: 53)

This complex machinery would be justified if it were hypothesized that all the elements of these analyses are **innate building blocks** of the grammar blueprint, whch constrain the possible grammars. Without the innateness hypothesis, they are no longer needed, as far as I can see – because possible grammars are not constrained other than by functional-diachronic regularities.

> "We should like to emphasize that in discussing the Shona data, we shall not be arguing for any particular (competence) model of grammar. We shall limit our discussion to the **motivation** of the facts to be presented..." (Hawkinson & Hyman 1974: 147)

motivation = g-linguistics
competence model = p-linguistics

Conclusion

Take-home message 1
Efficiency explanations of argument coding asymmetries are surprisingly successful.

Take-home message 2
We must distinguish between general linguistics (g-linguistics) and theories of particular languages (p-linguistics).

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