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On the Cross-Linguistic Distribution of Same-Subject and Different-Subject 'Want' Complements: Economic vs. Iconic Motivation¹

Abstract

This paper presents the results of a world-wide typological study of same-subject and different-subject complements of the verb 'want' (sample size: 80 languages). I am interested in whether the subject is overtly expressed only in different-subject complements (e.g. English, Mandarin Chinese, Coptic) or whether it is expressed also in same-subject complements (e.g. Modern Greek, Mixtec, Arabic, where the literal translation of 'I want to go home' is 'I want that I go home'). Not surprisingly, the more economical English pattern is more widespread in the sample languages. I argue that this pattern should be explained in terms of economic motivation, not in terms of iconic motivation or conceptual closeness (as has also been suggested in the literature). The economic explanation turns out to be more general and to make more accurate predictions.

1. Subject omission and formal simplicity in 'want' complements

In this paper, I propose a usage-based explanation of a typological trend in two types of complement constructions of the verb 'want': There is often an asymmetry in the way that same-subject (SS) and different-subject (DS) 'want' complement clauses are encoded across languages. I argue that the asymmetry can be explained by a frequency bias (*economic motivation* in Haiman's 1983 sense). 'Want' complements overwhelmingly show

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referential identity between the wanter argument and the subject (the A or S argument) of the complement clause. Sentences like (1a) are much more frequent than sentences like (1b), apparently in all languages. (Here the symbol \emptyset is meant to show that the notional subject of the complement clause is not expressed overtly.)

- (1) a. Kim_1 wants $[\emptyset_1$ to go home].
 - b. Kim_1 wants $[him_2$ to go home].

I claim that two aspects of same-subject complement clauses are economically motivated: (i) The fact that the notional complement subject is **unexpressed** in many languages (as illustrated in (1a), where the notional subject of 'to go home' cannot be expressed overtly in its clause), and (ii) the fact that different-subject complement clauses often show a **formally more complex pattern**, as illustrated by German:

(2) German

- a. Kim_1 will [\emptyset_1 nach Hause gehen]. Kim wants \emptyset to home go 'Kim wants to go home.'
- b. *Kim*₁ *will*, [*dass er*₂ *nach Hause geht*]. Kim wants that he to home goes 'Kim wants him to go home.'

In the different-subject pattern (2b), there is an additional complementizer (dass), and the verb form is finite (geht 'goes'), contrasting with the infinitival form in (2a), so the DS pattern is more complex in two different ways.

I refer to these frequently encountered properties of same-subject complements as **subject omission** and **formal simplicity**. It should be noted that neither subject omission nor formal simplicity are universal properties. While both English and German exhibit obligatory subject omission, there are quite a few languages that must express the subject overtly in same-subject complements of 'want'. Two such languages are Modern Greek and Standard Arabic, as illustrated in (3–4). Here the subject

in the SS complement in (a) is expressed in the same way as the subject in the DS complement in (b).²

(3) Modern Greek

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a. Thél-o na dhulév-o. (SS)
want-1SG [SBJV work-1SG]
'I want to work.' (Lit. 'I want (that) I work.')
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b. Thél-o na dhulév-is. (DS)
want-1SG [SBJV work-2SG]
'I want you to work.' (Lit. 'I want (that) you work.')
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(4) Standard Arabic

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a. ?-uriid-u ?an ?a-takallam-a. (SS) 1SG-want-IND [that 1SG-talk-SBJV] 'I want to talk.' (Lit. 'I want (that) I talk.')
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b. ?-uriid-u ?an ta-takallam-a. (DS) 1SG-want-IND [that 2SG-talk-SBJV] 'I want you to talk.' (Lit. 'I want (that) you talk.')
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And while German exhibits formal simplicity (of the same-subject pattern compared to the different-subject pattern), English does not: apart from the obligatory omission of the subject, (1a) is not simpler than (1b).

However, in a broader context the subject omission and formal simplicity can be seen as universal properties: Compared to other verbs such as 'believe', 'want' apparently always shows a greater or equal tendency to exhibit subject omission and formal simplicity. Complement-taking verbs that express a propositional attitude, such as 'think', 'believe', 'assume', verbs that express knowledge such as 'know' or 'forget', and verbs that express a speech act such as 'say' or 'tell' occur much more rarely in constructions where the subject is not expressed and must be inferred from the context.

We can thus formulate implicational universals such as the following:

² Many linguists call the subject person forms in (3) and (4) "agreement markers", but this is an Anglocentric perspective on these languages. As is argued in Haspelmath (2013), cross-indexes like the subject person indexes in these languages should not be seen as agreement markers, but as elements that serve to co-express the subject.

- (5) a. If a language has subject omission in (same-subject) complements of 'believe', it also has subject omission in complements of 'want'.
 - b. If a language shows formal simplicity in same-subject complements of 'believe', it also shows formal simplicity in complements of 'want'.

Even though 'believe' tends to be coded differently from 'want', languages may also treat both of them in the same way. An example of a same-subject 'believe' construction that shows both subject omission and formal simplicity is shown in (6a) from French, contrasting with the different-subject pattern in (6b). The verb *croire* thus allows the same constructions in which *vouloir* 'want' occurs (cf. 7a–b).³

- (6) a. Kim croit être seul. Kim believes to.be alone 'Kim₁ believes that he₁ is alone.'
 - b. Kim croit qu' il est seul. Kim believes that he is alone 'Kim₁ believes that he_{1/2} is alone.'
- (7) a. *Kim veut être seul*.

 Kim wants to be alone 'Kim wants to be alone.'
 - b. Kim_1 veut qu' il_2 soit seul. Kim wants that he be alone 'Kim₁ wants him₂ to be alone.'

So the contrast between 'believe' and 'want' is not universal, but when there is a difference between them, then 'want' shows subject omission and formal simplicity, while 'believe' does not.⁴

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³ However, the complement clause with *que* allows both a same-subject and a different-subject reading in (6b), in contrast to (7b). Thus, *croire* has all the possibilities of *vouloir* and some additional ones. (But note that the complement verb is in the subjunctive in (7b) but in the indicative in (6b), so (6) and (7) are not completely parallel.)

⁴ Unfortunately, the evidence for the claims in (5a–b) is purely impressionistic at the moment, derived from my casual observations of many descriptions of languages. But in order to formulate the general tendencies in the coding of 'want' complements as testable universals, they need to be contrasted with another type of complement clause. More evidence needs to be provided for these claims in future work.

2. Redundancy and economic motivation

The first formal characteristic of same-subject complements, that the subject is often left unexpressed, is perhaps not very surprising, because its referent can be readily inferred from the context, i.e. expressing it would be **redundant**. However, things are not that simple, for three reasons.

First, the referential identity in (1a) is not simply pragmatically inferred, but is rigidly prescribed by the grammar. In other words, the complement subject is **obligatorily controlled**. It is not just an available or preferred reading, but it is the only possible reading. Such obligatory control is found in many languages, not just in English.

Second, the inference is not watertight, because complements of 'want' do not have to have a subject that is identical to the wanter. In this, they contrast with ability verbs, for example, where a different-subject pattern is simply nonsensical:

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(8) a. Sasha<sub>1</sub> is able [Ø<sub>1</sub> to lift the suitcase].
b. *Sasha<sub>1</sub> is able [for him<sub>2</sub> to lift the suitcase].
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Here it is quite clear that expressing the subject of the complement clause overtly in (8a) would be redundant, because there is no possible contrast. The reference of the complement subject can be predicted with 100% certainty (so we can call this *deterministic redundancy*). Still, some languages opt for full explicitness and express the subject redundantly in such constructions as well, e.g. Modern Greek:

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(9) I kopéla bor-í [na aníj-i ti fiáli].
the girl can-3SG COMP open-3SG the bottle
'The girl can open the bottle.' (Lit. '...is able that she opens the bottle')
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So the fact that English (like most other languages) does not repeat the subject in (8a) is evidently an exploitation of the redundancy that derives from the special semantics of ability. But an analogous explanation is not immediately evident in the case of 'want', because the counterpart of (8b) is perfectly possible (see 1b).

Third, it is by no means always the case that referential identity with an element in the immediate context leads to omissibility of the referential expression. Consider reflexive situations such as (10).

(10) $Maria_1$ saw herself₁ in the mirror.

Here the object argument is referentially identical with the subject argument, so one might think that it can be inferred easily, and that there would be a tendency to omit it. However, the opposite is the case: While English does not allow object omission at all (some kind of pronominal object has to be used), many other languages allow objects to be implicit, but in such cases the object normally gets a disjoint reading (non-identity with the subject), not a reflexive reading.

Thus, it does not go without saying that subject omission in sentences like (1a) gets a same-subject interpretation. This must be a convention of the grammar that could in principle be the opposite and that calls for an explanation. There are thus actually three aspects of the SS-DS contrast in (1a–b) that need to be explained: the omission of the notional subject in (1a), the obligatory coreference with the wanter in (1a), and the greater formal complexity of the DS pattern in (1b). I claim that all these aspects can be explained in terms of the frequency bias (economic motivation).

An alternative explanation that one finds in the literature is in terms of iconic motivation (Haiman 1983; Givón 1990; Cristofaro 2003). The idea is that the "functional integration" of SS complements is iconically reflected in "formal integration". According to Givón (1990: 560), the "degree of finiteness is an **iconic expression** of the degree of integration of the main and complement events". Givón writes:

Given a hierarchy of *degree of finiteness* (or its converse, *degree of nominality*) of verb forms found in a language, the more integrated the two events are,

- (i) the more noun-like is the complement verb likely to be, and
- (ii) the less finite verbal morphology such as tense-aspect-modality and **pronominal agreement** is the verb likely to display.

(Givón 1990: 561.)

In much the same vein, Cristofaro (2003: 252) writes that "lack of TAM and person agreement distinctions (as well as lack of overtly expressed arguments) leads to syntactic integration between clauses, and iconically reflects semantic integration between states of affairs."

The explanation in terms of a frequency bias is a universalist usage-based explanation, i.e. it derives universal tendencies of grammatical form from a universal frequency bias. We thus need to consider what the cross-linguistic formal patterns are, and what the cross-linguistic usage frequencies are. In the next section, we start with the frequency bias, before looking at the cross-linguistic formal patterns in §4.

3. The frequency bias for same-subject constructions

While there is no deterministic redundancy in the case of same-subject 'want' constructions, I argue that subject omission is due to redundancy exploitation here, too. The redundancy is *probabilistic* rather than deterministic, but this is sufficient to lead languages to choose subject-omitting constructions in many cases (even the majority, as we will see in $\S4$). Thus, the argument is that many languages (including English) have constructions like *I want* \varnothing *to go home* because 'want' complements overwhelmingly show subject identity, so that the subject can be easily predicted by the hearer and does not have to be expressed overtly by the speaker. Such cases of zero expression exploiting probabilistic redundancy are very widespread in language structure (cf. Haspelmath 2008a), and no ad hoc assumption need to be made here.

But of course, exploiting the redundancy that derives from the frequency bias is not necessary. Languages may instead opt for explicit coding (cf. 3–4 above), just as they may opt for explicit coding even in the case of deterministic redundancy (cf. example 9 above).

The strong usage preference for same-subject 'want' constructions can easily be seen in text counts. Table 1 shows data from English, and Table 2 shows data from written Italian. The trend is so overwhelming that it would be pointless to look at larger corpora.

Table 1. Frequency of same-subject and different-subject complements of *want* in English. Source: ICE-GB (International Corpus of English), Schmidtke-Bode (2012: 433)

same-subject complements	540	89%
different-subject complements	76	11%
Total: cases of <i>want</i> with clausal complement	616	100%

Table 2. Frequency of same-subject and different-subject complements of *volere* 'want' in written Italian. Source: Alessandro Manzoni, *I promessi sposi*, 1840–42. (Letteratura Italiana Zanichelli (LIZ) on CD-ROM)

same-subject complements	444	87%
different-subject complements	65	13%
Total: cases of <i>volere</i> 'want' with clausal complement	509	100%

Now one might suspect that the frequency asymmetry that we see in English and Italian is not universal, and is in fact due to the formal asymmetry, so that the direction of causality is exactly opposite from what I have claimed. In other words, it could be that same-subject complements are so much more frequent than different-subject complements because they are shorter and involve less coding effort. Thus, we should also look at languages in which there is no formal asymmetry, and one such language is Modern Greek. Some data from written Modern Greek are given in Table 3 (as I had no electronic corpus available, the absolute figures are very low).

Table 3. Frequency of same-subject and different-subject complements of *thélo* 'want' in written Modern Greek. Source: Kóstas Tzamális, *Stin Athína tu Periklí*, Athen: Estía/Kollaru, pp. 22–122.

same-subject complements	38	88%
different-subject complements	5	12%
Total: cases of <i>thélo</i> 'want' with clausal complement	43	100%

By contrast, other complement-taking verbs such as 'think' do not show any preference for same-subject complements.⁵

Despite the limited amount of data, I regard the corpus counts as fairly good evidence that the frequency bias is strong and cross-linguistically systematic, regardless of the formal encoding of same-subject and different-subject complements of 'want'. And the frequency difference is of course not surprising: Humans (like all creatures) are naturally egocentric, and their own actions are much more important to them than other people's actions. Thus, it is expected that we talk more frequently about people's desires concerning their own actions (i.e. same-subject) than about their desires concerning other people's actions (i.e. different-subject). That is, the egocentricity of humans translates into a strong preference for same-subject 'want' constructions. An alternative explanation of the frequency difference appeals to relevance: Our wishes concerning other people's actions are much less relevant than our wishes concerning our own actions, because we cannot directly influence other people's actions.

Whatever the explanation for the frequency differences observed in Table 1–3, what matters in the current context is that there are such

⁵ For example, in *The Little Prince*, same-subject 'think' occurs three times, and different-subject 'think' occurs nine times. So, one might even suspect a preference for different-subject complements.

⁶ One might wish to have corpus data from a wider range of languages, for example. However, while languages are known to differ grammatically, there is no reason to think that they differ significantly in the frequency with which certain thoughts are expressed.

⁷ Interestingly, in the case of "God wants", a different-subject pattern seems to be much more frequent, as a casual web search suggests ("God wants you to be happy" etc.).

frequency differences. The causal chain is from frequency bias to economic coding, and for this causal chain it is irrelevant what might lie at an even earlier point in the causal chain.⁸

Let us now look in more detail at the cross-linguistic encoding patterns.

4. 'Want'-constructions in 80 languages world-wide

My data are from a world-wide convenience sample of 80 languages, for which I have collected data on same-subject and different-subject 'want' constructions from reference grammars and other kinds of grammatical descriptions. These languages are listed in Table 4, with some genealogical information, a bibliographical reference, and the type of relationship between the SS 'want' pattern and the DS 'want' pattern. Seven different types are distinguished:

Type 1: no coding asymmetry (as in Modern Greek and Standard Arabic, see (3) and (4))

Type 2: simple subject omission (see §5)

Type 3: simple complementizer omission (see §6)

Type 4: complementizer omission and different verb form (see §7)

Type 5: shorter 'want' verb (see §8.1)

Type 6: 'want' expressed as desiderative marker (see §8.2)

Type 7: different-subject construction does not exist (see §8.3)

Table 4. The 80-language sample.

Language	Family	Subfamily	Reference		
type 1 (no coding a	type 1 (no coding asymmetry)				
Mende	Niger-Congo	Mande	Innes 1971: 122		
Dagbani	Niger-Congo	Gur	Olawsky 1999: 25		
Koyraboro Senni	Songhay		Heath 1999: 326		
Standard Arabic	Afro-Asiatic	Semitic	own knowledge		
Somali	Afro-Asiatic	Cushitic	Berchem 1991: 253		
Hausa	Afro-Asiatic	Chadic	Kraft & Kirk-Greene 1973:		
			167		

⁸ A reviewer objects that "frequency per se can't be the explanation, because one still has to explain why X is more frequent(ly attested) than Y". But this does not follow: It could be that we have no idea what causes the frequency of use, but we do know what its consequences are. Alternatively, one could propose that both the frequency difference and the form difference follow from something deeper. I do not know what this unknown factor might be (see Haspelmath 2008b:§8.6.5 for further comments on this issue).

Modern Greek	Indo-European	Greek	own knowledge
Taba	Austronesian	Oceanic	Bowden 2001: 391–392
Abun	West Papuan		Berry & Berry 1999: 167,
	1		176
Warembori	Lower Mamberano		Donohue 1999: 48–49
Bininj Gun-wok	Gunwinyguan		Evans 2003: 640-641
Dogrib	Athapaskan		Saxon 1984
Halkomelem	Salishan		Gerdts 1988
Mohawk	Iroquoian		Baker 1996
Diegueño	Yuman		Gorbet 1998: 11
Maricopa	Yuman		Gordon 1986: 248–250
type 2 (simple subj	ect omission)		•
English	Indo-European	Germanic	own knowledge
Supyire	Niger-Congo	Gur	Carlson 1994: 370, 428, 437
Iraqw	Afro-Asiatic	Cushitic	Mous 1993: 109, 266, 291
Godoberi	Nakh-Daghestanian	Andic	Haspelmath 1996: 188
Khanty	Uralic	Ugric	Nikolaeva 1999: 25, 46
Mandarin Chinese	Sino-Tibetan	Sinitic	Bingfu Lu, p.c.
Meithei	Sino-Tibetan	Kuki-Chin-	Chelliah 1997: 83, 95; Bhat
		Naga	& Ningomba 1997: 309
Tagalog	Austronesian	Philippinic	Schachter & Otanes 1972:
			268, NT
Maori	Austronesian	Oceanic	Bauer 1993: 42
Mparntwe	Pama-Nyungan		Wilkins 1989: 451–452
Arrernte			
Nhanda	Pama-Nyungan		Blevins 2001: 132–133
Lakota	Siouan		Van Valin 1977
Retuarã	Tucanoan		Strom 1992: 84, 160
Haitian Creole	creole		NT
Sranan	creole		NT
	plementizer omission))	
Ju 'hoan	Kx'a		Dickens 2005
Yoruba	Niger-Congo	Defoid	Rowlands 1969: 66, 74
Maltese	Afro-Asiatic	Semitic	Sandro Caruana, p.c.
Mupun	Afro-Asiatic	Chadic	Frajzyngier 1993: 471–472
Hmong Njua	Hmong-Mien		Harriehausen 1990: 216,
			220, 230
Hopi	Uto-Aztecan		Kalectaca 1978
Tzutujil	Mayan		Dayley 1985: 391–393
Chalcatongo	Oto-Manguean		Macaulay 1996
Mixtec			

type 4 (complementizer omission and different verb form)				
Kana	Niger-Congo	Cross River	Ikoro 1996: 208–209	

Swahili	Niger-Congo	Bantu	NT
Lango	Nilotic	Dantu	Noonan 1992: 221, 223
Krongo	Kadugli		Reh 1985: 335
Coptic	Afro-Asiatic	Egyptian	Lambdin 1983: 54, 56, 74
	Kartvelian	Едуриан	Vamling 1989
Georgian		Lancia	
Lezgian	Nakh-Daghestanian	Lezgic	Haspelmath 1993: 369
Basque	- T 1 E		Andolin Eguzkitza, p.c.
German	Indo-European	Germanic	own knowledge
Kashmiri	Indo-European	Indic	Wali & Koul 1997: 46, 50
Hindi	Indo-European	Indic	NT
Finnish	Uralic	Finnic	Karlsson 1999: 182
Turkish	Turkic		own knowledge
Indonesian	Austronesian	Sundic	Sneddon 1996: 271, 275, 296
Madurese	Austronesian	Sundic	Davies 1999: 46
Kiribati	Austronesian	Oceanic	Groves et al. 1985: 53, 56, 153
Martuthunira	Pama-Nyungan		Dench 1995: 256
Ute	Uto-Aztecan		Givón 2011: 215–217
Purepecha	_		Chamoreau 2000: 92, 121, 163
Mam	Mayan		England 1983: 302
Huallaga Quechua	Andean		Weber 1989: 289
type 5 (shorter 'wa	int' verb)		
Korean	_		Chang 1996: 65, 126
Drehu	Austronesian	Oceanic	Moyse-Faurie 1983: 181– 182
Boumaa Fijian	Austronesian	Oceanic	Dixon 1988: 39, 91, 279, 286
Samoan	Austronesian	Oceanic	Mosel 1994: 337–338
Labrador Inuttut	Eskimo-Aleut		Smith 1982
type 6 ('want' expr	ressed as desiderative	marker)	
Evenki	Tungusic		Nedjalkov 1997: 27–28
Japanese	_		Kaoru Horie, p.c.
Erromangan	Austronesian	Oceanic	Crowley 1998: 134
Maranungku	Daly	Western Daly	Tryon 1970: 56
Rama	Chibchan		Grinevald 1988: 56, 79,
			112, 116, 128, 167–168,
			198, 214, 223, 227, 231
Macushi	Cariban		Abbott 1991: 30, 40, 79f.
Guaraní	Tupi		Gregores and Suarez 1967:
	1		128, 177, 179
Nambikuara	Nambikuaran		Kroeker 2001: 38, 41, 76

type 7 (different-subject construction does not exist)				
Acehnese	Austronesian	Sundic	Durie et al. 1994: 177–178	
Kalam	Trans-New Guinea	Madang	Pawley 1994: 400	
Kombai	Trans-New Guinea	Awju-Dumut	de Vries 1993	
Kayardild	Tangkic		Evans 1995: 259	
Tümpisa	Uto-Aztecan		Dayley 1989	
Shoshone				
Trumai	_	_	Guirardello 1999: 146, 175	
Awa Pit	Barbacoan-Paezan		Curnow 1997: 166	

5. Simple subject omission (type 2)

The most common type of frequency effect that we find is the omission of the subject (the S or A argument) in same-subject complements. This happens in the great majority of the languages of the sample. (Only 16 of the 80 languages show the Modern Greek pattern, with no subject omission.⁹)

There are 15 languages in the sample in which subject omission is the only economy effect (type 2). One such language is English, as we saw in the very first example (1a–b). A few further examples of languages in which the different-subject construction is identical to the same-subject construction except for the omission of the subject pronoun are given in (11–16) below. (In the examples below, the 'want' verb is printed in boldface, for ease of orientation.)

(11) Mandarin Chinese (Bingfu Lu, p.c.)

Lisi want Ø zao dian huijia. (SS) Lisi want Ø early little return 'Lisi wants to go back home early.'

Lisi want [Zhangsan zao dian huijia. (DS) Lisi want [Zhangsan early little return] 'Lisi wants Zhangsan to go back home early.'

⁹ However, in the larger and more balanced sample of Haspelmath (2005/2011), a quarter of the languages (72 out of a total of 283) have an overtly expressed subject, and almost all of them are like Modern Greek and Standard Arabic.

(12) Haitian Creole (NT)¹⁰

Eròd té **vlé** Ø touyé-l. (SS) Herodes PST want Ø kill-him 'Herod wanted to kill him.' (Mt 14:5)

Li pa-t vlé pèsonn konnin li té la. (DS) he not-PST want [nobody know he PST there] 'He didn't want anybody to know that he was there.' (Mk 7:24)

(13) Manipuri (Bhat & Ningomba 1997: 309)

əy Ø cət-pə **pam-mi** (SS) I Ø go-INF want-NFUT 'I want to go.'

ay ma-na cat-pa pam-mi (DS) I he-NOM go-INF want-NFUT 'I want him to go.'

(14) Retuarã (Strom 1992: 160)

wa?ia Ø-e?e-ri-ka **ko-yapa-yu** (SS) fish Ø-get-NMLZ-N 3SG.F-want-PRS 'She wants to get fish.'

wa?ia yi-e?-ri-ka **ko-yapa-yu** (DS) fish 1SG-get-NMLZ-N 3SG.F-want-PRS 'She wants me to get fish.'

(15) Godoberi (Haspelmath 1996: 188)

ilu-li **q'waraY-an-da** Ø b-al-i. (SS) mother-DAT want-CVB-COP Ø N-read-INF 'Mother wants to read.'

ilu-li q'waras-an-da waša caXawa wu-n-i. (DS) mother-DAT want-CVB-COP boy[ABS] away M-go-INF 'Mother wants the boy to go away.'

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¹⁰ For Haitian Creole and a number of other languages, my evidence comes from the New Testament (NT) in these languages.

(16) Tagalog (NT)

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ibig ni Herodes na ipapatay Ø si Juan (SS) want ART.ERG Herodes COMP kill Ø ART.ABS John 'Herod wanted to kill John.' (Mt 14:5)
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ibig ba ninyo-ng palayain ko ang Hari ng mga want Q you.ERG-COMP release I.ERG ART.ABS King GEN PL
Judio? (DS)
Jew
'Do you want me to release for you the King of the Jews?' (Mk 15:9)
```

In addition to simple subject omission, we observe a number of further economy effects, in all of which the SS pattern tends to be formally simpler or shorter. These are described and exemplified in §6–8.

6. Simple complementizer omission (type 3)

In a number of languages, there is an overt complementizer in different-subject complements, but this complementizer is omitted in same-subject complements, and this is the only difference between the SS and the DS pattern. Languages with this contrast type are Ju|'hoan, Maltese, Chalcatongo Mixtec, Hmong Njua, and Tzutujil.

(17) Maltese (Semitic) (Sandro Caruana, p.c.)

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It-tifel jrid jiġi d-dar kmieni. (SS) ART-boy 3SG.want.IPFV 3SG.come.IPFV ART-house early 'The boy wants to come home early.'
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It-tifel jrid li jiġi d-dar kmieni. (DS) ART-boy 3SG.want.IPFV that 3SG.come.IPFV ART-house early 'The boy<sub>1</sub> wants him<sub>2</sub> to come home early.'
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(18) Chalcatongo Mixtec (Macaulay 1996: 154–155)

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kuní=ri kée=rí (SS)
want=1 eat.POT=1
'I want to eat (something).'
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kuní=ri xa=ná-kí?i=ro (DS)
want=1 COMP=MOD-go.POT=2
'I want you to go.'
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In a few languages, there are complementizers in both patterns, but unlike in the simplest (no-economy) type, they are different (COMP.SS vs. COMP.DS). As expected from the economy perspective, the complementizer used in the same-subject construction is shorter. This is the case in Hopi (see 19) and in Mupun (see 20).

(19) Hopi (Uto-Aztecan) (Kalectaca 1978: 170–71)

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Pam as nös-ni-qe naawakna. (SS) he PTCL eat-FUT-COMP.SS want 'He wants to eat.'
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Pam as nu-y nös-ni-qat naawakna. (DS) he PTCL I-ACC eat-FUT-COMP.DS want 'He wants me to eat.'
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(20) Mupun (Frajzyngier 1993: 472)

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n-dem n-man ar də mo cin di (SS)
1SG-want COMP.SS-know way REL they do it
'I want to know how they do it.'
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n-dem ko n-mo cin dî (DS) 1SG-want COMP.DS LOC-they do it 'I want them to do it.'
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In some cases, the complementizer is reduced and merges with the 'want' verb, but only in the same-subject construction. This is the case in English and in Yoruba:

(21) English

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I wanna do it. (< want to) (cf. What do you wanna do?) (SS)
I want her to do it. (cf. *Who do you wanna do it?) (DS)
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(22) Yoruba (Rowlands 1969: 66, 71)

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mo f\acute{e}-\acute{e} r\grave{a} \acute{a} (< mo f\acute{e} k\acute{i} r\grave{a} \acute{a}) (SS) I want-COMP.SS buy it 'I want to buy it.'
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```
nw \acute{o}n f \acute{e} k \acute{l} e m \acute{a}a l \acute{o} (DS) they want COMP.DS you IPFV go 'They want you to go.'
```

Simple complementizer omission (or complementizer shortness) is rarer in my sample than complementizer omission and different verb form, a type to which we now turn.

7. Complementizer omission and different verb form (type 4)

The largest group of languages in my sample (21 languages) is those that omit the subject, the complementizer (if there is one in the different-subject construction), and also have a different verb form (usually called "infinitive") in same-subject constructions. This was already illustrated for German in (2a–b) above, and some further examples are given below in (23–33).¹¹

(23) Lango (Noonan 1992: 223–224)

ά-mìttò bínô (SS) 1SG-want.PROG come.INF 'I want to come.'

á-mìttò nî ὸ-bǐn (DS) 1SG-want.PROG COMP 3SG-come.SBJV 'I want her to come.'

(24) Hindi

šair ne nazm paṛh-nii caah-ii. (SS) poet ERG poem[F] read-INF.F want-PST.F 'The poet wanted to read a poem.'

tuu kyaa **caah-taa hai** ki maĩ tere liye kar-ũ? (DS) you what want-PRS AUX.2SG [that I you for do-SBJV.1SG] 'What do you want me to do for you?' (NT, Mk 10:51)

(25) Finnish (NT)

me tahdo-mme näh-dä sinu-lta merkin (SS) we want-1PL see-INF you-ELAT sign 'We want to see a sign from you.' (Mt 12:38)

¹¹ It appears that when the complementizer is omitted and a different verb form is used, the subject is always omitted as well. At least I am not aware of a language that shows complementizer omission and a different verb form in the same-subject construction, but does not omit the subject. I have no explanation for this.

mihin **tahdo-t**, että valmista-mme pääsiäislampaan...? (DS) where want-2SG [that prepare-1PL Passover.meal] 'Where do you want us to prepare the Passover meal?' (Mt 26:17)

(26) Indonesian (NT)

Herodes ingin membunuh-nya. (SS) Herodes want kill-3sG.OBJ 'Herodes wanted to kill him.' (Mt 14:5)

aku ingin, supaya kamu hidup tanpa kekuatiran. (DS) I want that you be without worry 'I want you to be without worry.' (1 Cor 7:32)

(27) Basque (Andolin Eguzkitza, p.c.)

Aita-k goiz etorr-i **nahi du** etxe-ra. (SS) father-ERG early come-PTCP want IND.3SG.ERG house-LOC 'Father wants to return home early.'

Aita-k ama etxe-ra goiz etor dadin father-ERG [mother(ABS) house-LOC early come SBJV.3SG.ERG] nahi du. (DS) want IND.3SG.ERG 'Father wants mother to return home early.'

(28) Lezgian (Haspelmath 1993: 369)

Nabisata-z ktab k'el-iz k'an-zawa. (SS) Nabisat-DAT book read-INF want-IPFV 'Nabisat wants to read a book.'

Nabisata-z ruš-a ktab k'el-na **k'an-zawa**. (DS) Nabisat-DAT [girl-ERG book[ABS] read-CVB] want-IPFV 'Nabisat wants the girl to read a book.'

(29) Coptic (NT)

ten-ouōš e-naou e-u-mēini ntot-k (SS) 1PL-want ALL-see.INF ALL-ART-sign from-2SG 'We want to see a sign from you.' (Mt 12:38)

ou p-ete-**k-ouaš-f** nta-ai-f na-k? (DS) what ART-REL-2SG-want-3SG.OBJ 1SG.SBJV-do-3SG.OBJ for-2SG 'What do you want us to do for you?' (Mk 10:51)

(30) Swahili (NT)

tw-a-taka ku-ona ishara kwa-ko (SS) 1PL-PRS-want INF-see sign from-you 'We want to see a sign from you.' (Mt 12:38)

m-na-taka ni-wa-fungu-li-e mfalme wa Wayahudi? (DS) 2PL-PRS-want 1SG-2PL.OBJ-free-APPL-SBJV king GEN Jews 'Do you want me to release the king of the Jews for you?' (Lk 19:14)

(31) Krongo (Reh 1985: 335–337)

n-átàasà à?àŋ àkờ ớơdà (SS) 1-want.IPFV I INF.eat meat 'I want to eat meat.'

n-átàasà à ?àŋ t-óshí-kò-n-tú nàamà à ?àŋ (DS)
1-want.IMPF I NOM-cook.IPFV-GEN-TR-2SG things me
'I want you to cook for me.'

(32) Huallaga Quechua (Weber 1989: 289)

Mucha-y-ta muna-:. (SS) kiss-INF-ACC want-1 'I want to kiss her.'

Mucha-ma:-na-n-ta muna-n. (DS) kiss-1.OBJ-SUBORD-3.POSS-ACC want-3 'He wants him to kiss me.'

(33) Martuthunira (Dench 1995: 256)

Ngayu wiru yungku-ngu-layi ngurnu-tharra-a wirra-tharra-a. (SS) 1SG.NOM wanting give-PASS-FUT that.OBL-DU-ACC boomerang-DU-ACC 'I want to be given those two boomerangs.'

Ngunhaa mir.ta wiru yirna-tharra-a ngayala-tharra-a that.NOM not want this-DU-ACC nephew-DU-ACC nhurnti-ma-lalha-a jankurna-a mungka-lwaa ngurnaa. (DS) dead-CAUS-PST-ACC emu-ACC eat-PURP(S=P) that.ACC 'He didn't want these two nephews who had speared the emu to eat it.'

8. Other types of formal simplicity

8.1 The verb 'want' is shorter in the same-subject construction (type 5)

In quite a few languages, it is not so much the complement construction, but the verb 'want' itself that is more reduced in the same-subject pattern. In the present sample, this is the case in Samoan (cf. 34), Boumaa Fijian (cf. 35), Korean, Drehu, and Labrador Inuktitut.

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(34) Samoan (Oceanic) (Mosel & Hovdhaugen 1992: 710, 714)
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e fia si'i e Leona Iosefa (SS)
GENR want carry ERG Leona Iosefa
'Leona wants to carry Iosefa.'
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e lē mana'o le teine e fasi ia le tama (DS) GENR NEG want ART girl [GENR hit she ART boy] 'The girl doesn't want the boy to hit her.'
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(35) Boumaa Fijian (Dixon 1988: 91)

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au via nasu-'a bulumakau yai. (SS) I want tie-TR cow this 'I want to tie up this cow.'
```

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au vina'a-ta m-o la'o yane. (DS) I want-TR [that-you go there] 'I want you to go there.'
```

8.2 'Want' is expressed as a desiderative affix (type 6)

The expression of 'want' may be so short that it is affixed as a desiderative marker to the main verb (8 languages in the current sample; 45 out of 283 languages in Haspelmath 2005). For different-subject sentences, a different verb has to be used.¹²

¹² The use of an affix in different-subject 'want' constructions is possible in some languages as well, but it is very rare; an example is Labrador Inuttut (Smith 1982: 173).

(36) Erromangan (Crowley 1998: 134)

yacam-ampy-omonki. (SS) 1SG.PRS-DESID-drink 'I want to drink.'

yacam-naig-i kik ko-nomonki (DS) 1SG.PRS-want-CONST you 2SG.FUT-drink 'I want you to drink.'

(37) Japanese (Kaoru Horie, p.c.)

Taroo-wa orenzi-ga tabe-tai. (SS)
Taro-TOP orange-NOM eat-DESID
'Taro wants to eat an orange.'

Haha-wa Taroo-ni suupu-o non-de hosii. (DS) mother-TOP Taro-DAT soup-ACC drink-CVB want 'Mother wants Taro to eat a soup.'

8.3 The different-subject construction does not exist (type 7)

In some languages (six in my sample), there simply is no different-subject construction, and some kind of paraphrase has to be used. For example, in Tümpisa Shoshone, *-suwa* expresses 'want', but only in a same-subject configuration:

(38) Tümpisa Shoshone (Dayley 1989: 384)

hi-nna üü hipi-suwa-nna? (SS) what-OBJ you drink-want-GEN 'What do you want to drink?'

According to Dayley (1989: 385), "there is no direct equivalent of [the different-subject construction]; the closest would be with a verb of telling instead of wanting... Thus, instead of saying 'I want someone to do something', one would say something like 'I told/will tell someone to do something'."

Similarly, in Acehnese, the verb *tém* can be used in SS patterns such as (39):

(39) Acehnese (Durie, Bukhari & Mawardi 1994: 177)

Lôn-tém woe. I-want return 'I want to return.'

However, the closest equivalent of the DS pattern is a sentence with *lakèe* 'ask', such as (40) (ibid. 178):

```
(40) Lôn-lakèe droeneuh beu-neu-woe.

I-ask you SBJV-you-return
'I ask you to return.' (May be used for 'I want you to return.')
```

Non-existence of a pattern is not strictly speaking a case of "formal complexity". However, one may take the point of view that every meaning can be expressed in some way, and if there is no grammatically paradigmatic expression, then there is some other way of expressing the relevant idea. What matters is that the more frequent pattern is the one that can be expressed compactly and economically by grammatical means.

9. Economy vs. iconicity

There are two main arguments in favour of the economy explanation, and against the iconicity explanation proposed by Givón and Cristofaro. The first is an empirical argument, the second is a methodological argument.

First, from the point of view of the iconicity explanation, there is no reason to expect that participant sharing (on the conceptual side) should be iconically reflected by complementizer omission (on the morphosyntactic side). One would expect it to be reflected by subject omission (as happens in many cases, of course), but not by other kinds of shortness effects. But in §5–7 we saw that these other kinds of formal simplicity effects are also widely found in languages, as predicted by the economy account.

Second, the economy explanation has a clear methodological advantage: The crucial concepts of "conceptual closeness" and "morphosyntactic integration" are both rather vague, and difficult to measure objectively. The economy explanation is much easier to test empirically: Frequency of occurrence can easily be measured by examining texts in almost any language (see §2), and shortness of expression can also be determined quite easily. Thus, this approach has a greater potential of leading to fruitful empirical research, and it should be favoured even if the current empirical data did not already favour the economy model.

In Haspelmath (2008a), I showed that there are quite a few other areas of language structure where economy explanations are the best explanations, even though linguists have sometimes proposed iconicity explanations. I have not shown here that iconicity plays no role, but I have not found any effects that can only be explained by iconicity, and that have no economy explanation. It is therefore more parsimonious not to invoke iconicity in explaining the cross-linguistic patterns.

10. Explanation by functional adaptation and diachronic change

In the foregoing, I have noted a cross-linguistically general correlation between some aspects of language form and usage patterns. But this does not amount to an explanation yet – we still need to demonstrate a possible causal link between the motivating factor of frequency and occurrence and the formal patterns. This is a challenging task, but fortunately, it is not specific to the particular case at hand. Frequency has strong effects on all aspects of language structure, and since Zipf (1935), it has been clear that something like a principle of least effort must be at play, whatever the exact mechanisms (see also Croft 2003: §4.3; Haspelmath 2008a).

It is also clear that the implementation of the usage-form correlation must happen via diachrony. We speak the way we do because we follow other speakers' behaviour, not because we strive for a particular economical design of our language. But making this more precise is very difficult, because we know so little about language change. Only very few languages have an attested history, and the attestation of this history is very rudimentary. Nevertheless, I would like to suggest that there are two diachronic pathways by which the economical patterns that we saw above can be created: **differential phonetic reduction**, and **differential selection** of constructions (see Haspelmath 2008b).

We see differential phonological reduction in the case of English and Yoruba (cf. 21-22 above), in the well-known case *want to > wanna*. It has long been known that frequent combinations undergo greater phonetic reduction because the information is more predictable, and speakers can afford to speak with less effort. This is the classical Zipfian explanation.

However, it does not seem likely that this diachronic pathway is particularly important in explaining the patterns of 'want' complements. Subject omission and complementizer omission are not very likely to be due to phonological reduction. Instead, these patterns seem to arise by selection during the process of grammaticalization. In general, tightly

constrained patterns of grammar ultimately derive from constructions. Verbs with the meaning 'want', which tend to have tightly constrained complement clause patterns, tend to derive from verbs such as 'wish, desire, need', which often have less tightly constrained complement clause patterns. Compare German wollen 'want', which only allows a single pattern, in (41a-b), with wünschen 'wish', which allows both a finite and dass-clause an infinitival complement in the same-subject configuration (see 42a-b). This is thus a looser pattern, and if something like (42) turns into something like (41), a selection takes place: Only the more economical pattern (42b) survives.

- (41) a. Ich will früh heimkehren. (*Ich will, dass ich heimkehre.) 'I want to return home early.'
 - b. *Ich will, dass du früh heimkehrst.* (**Ich will du früh heimkehren.*) 'I want you to return home early.'
- (42) a. *Ich wünsche mir, dass ich früh heimkehre*. 'I desire that I return home early.'
 - b. *Ich wünsche mir, früh heimzukehren*. 'I desire that I return home early.'

Another looser construction type that may be the antecedent of a 'want' construction is a pattern with nominalization, as in (43).¹³ Here the subject may be made explicit by a possessive pronoun, as in (43b–c), but it may also remain implicit.

- (43) a. Ich wünsche mir eine frühe Heimkehr. 'I desire an early return.'
 - b. Ich wünsche mir meine frühe Heimkehr. 'I desire my early return.'
 - c. Ich wünsche mir deine frühe Heimkehr. 'I desire your early return.'

Again, if in diachronic change, a pattern such as (43a) (with no explicit subject) survives and becomes the only possibility, there is no reduction, just differential selection of economical patterns during grammaticalization

At the earlier stage of pattern freedom, speakers must have preferred the infinitival pattern for the same-subject case because it allowed more economical utterances, whereas the finite *dass* pattern eventually survived

¹³ Infinitives in Indo-European languages and elsewhere generally come from verbal nouns of some sort, cf. Gippert (1978), Haspelmath (1989).

only in the different-subject case. Thus, speakers' preferences in utterances can give rise to functionally adaptive patterns in grammar. This account is somewhat speculative, and I cannot prove it, but something along these lines must eventually be said for a complete economy-based explanation of the observed tendencies of 'want' complement clause coding.

11. Conclusion

My economy-based or frequency-based explanation is an instance of what is now generally called "usage-based" explanation of general patterns of language structure. This approach stands in a certain tension to the Saussurean view with its separation of *langue* and *parole* (cf. Newmeyer 2003). In Ferdinand de Saussure's *Cours de linguistique générale*, we find the following metaphor:

[O]n peut comparer la langue à une symphonie, dont la réalité est indépendante de la manière dont on l'exécute; les fautes que peuvent commettre les musiciens qui la jouent ne compromettent nullement cette réalité. ¹⁴ (Saussure 1972/1916: 36)

But in contrast to Saussure's metaphor, in human language, competence (= langue) is indeed influenced by performance (= parole), through the different treatment of constructions with different frequencies in language change.

However, this was not unknown in Saussure's time, and in fact we also find another quotation in the *Cours*:

La langue est à la fois l'instrument et le produit de la parole¹⁵ (Saussure 1972/1916: 37)

Thus, a language is crucially different from a symphony, which is a blueprint for the musicians' performance, but cannot be said in any way to be its product. The frequency with which a certain structure is used by speakers has a strong impact on its precise form, through the perpetual recreation of language in language learning and language change, which has no analog in the creation of a symphony.

¹⁴ "One can compare langue to a symphony, whose reality is independent of the manner in which it is performed; the errors committed by the musicians do not compromise this reality in any way."

¹⁵ "Langue is at the same time the instrument and the product of parole."

References

Abbott, Miriam (1991) Macushi. In Desmond C. Derbyshire & Geoffrey K. Pullum (eds.), *Handbook of Amazonian Languages 3*, pp. 23–160. Berlin: Mouton de Gruyter.

Baker, Mark C. (1996) *The Polysynthesis Parameter*. New York: Oxford University Press.

Bauer, Winifred (1993) Maori. London: Routledge.

Berchem, Jörg (1991) Referenzgrammatik des Somali. Köln: Omimee.

Berry, Keith & Berry, Christine (1999) A Description of Abun: A West Papuan Language of Irian Jaya. Canberra: Australian National University.

Bhat, D. N. S. & Ningomba, M. S. (1997) *Manipuri grammar*. Munich: Lincom Europa.

Blevins, Juliette (2001) *Nhanda: An Aboriginal Language of Western Australia*. Honolulu: University of Hawaii Press.

Bowden, John (2001) *Taba: Description of a South Halmahera Language*, Pacific Linguistics 521. Canberra: Australian National University.

Carlson, Robert (1994) A Grammar of Supyire. Berlin: Mouton de Gruyter.

Chamoreau, Claudine (2000) *Grammaire du purépecha parlé sur des iles du lac de Patzcuaro*. München: Lincom Europa.

Chang, Suk-Jin (1996) Korean. Philadelphia: John Benjamins.

Chelliah, Shobhana Lakshmi (1997) *A Grammar of Meithei*, Mouton Grammar Library 17. Berlin: Mouton de Gruyter.

Cristofaro, Sonia (2003) *Subordination*. Oxford Studies in Typology and Linguistic Theory. Oxford: Oxford University Press.

Croft, William (2003) *Typology and Universals*. 2nd ed. Cambridge: Cambridge University Press.

Crowley, Terry (1998) An Erromangan (Sye) Grammar. Honolulu: University of Hawaii Press.

Curnow, Timothy J. (1997) A Grammar of Awa Pit (Cuaiquer): An Indigenous Language of South-western Colombia. Canberra: Australian National University.

Davies, William (1999) Madurese. München/Newcastle: Lincom Europa.

Dayley, Jon P. (1985) *Tzutujil Grammar*, UC Publications in Linguistics 107. Berkeley: University of California Press.

— (1989) *Tümpisa (Panamint) Shoshone Grammar*. Berkeley: University of California Press.

Dench, Alan Charles (1995) *Martuthunira: A Language of the Pilbara Region of Western Australia*. Canberra: Australian National University.

Dickens, Patrick (2005) A Concise Grammar of Jul'hoan. Cologne: Köppe.

Dixon, R. M. W. (1988) A Grammar of Boumaa Fijian. Chicago: University of Chicago Press.

Donohue, Mark (1999) Warembori. München: Lincom Europa.

Durie, Mark; Bukhari, Daud & Mawardi, Hasan (1994) Acehnese. In Cliff Goddard & Anna Wierzbicka (eds.) *Semantic and Lexical Universals: Theory and Empirical Findings*, pp. 171–201. Amsterdam: John Benjamins.

- England, Nora C. (1983) A Grammar of Mam, a Mayan Language. Austin: University of Texas Press.
- Evans, Nicholas (1995) A Grammar of Kayardild: With Historical-Comparative Notes on Tangkic. Berlin: Mouton de Gruyter.
- —— (2003) Bininj Gun-Wok: A Pan-Dialectal Grammar of Mayali, Kunwinjku and Kune. Canberra: Pacific Linguistics.
- Frajzyngier, Zygmunt (1993) A Grammar of Mupun. Berlin: Reimer.
- Gerdts, Donna B. (1988) Semantic linking and the relational structure of desideratives. *Linguistics* 26 (5): 843–872.
- Gippert, Jost (1978) Zur Syntax der infinitivischen Bildungen in den indogermanischen Sprachen. Frankfurt am Main: Peter Lang.
- Givón, Talmy (1990) *Syntax: A functional-typological introduction*. Vol. II. Amsterdam: John Benjamins.
- —— (2011) *Ute reference grammar*. Amsterdam: John Benjamins.
- Gorbet, Larry (1998) Subjectivity and variation in desiderative constructions of Diegueño and Cocopa. In Leanne Hinton & Pamela Munro (eds.), *Studies in American Indian Languages: Description and Theory*, pp. 10–15. Berkeley: University of California Press.
- Gordon, Lynn (1986) *Maricopa Morphology and Syntax*. Berkeley: University of California Press.
- Gregores, Emma & Suárez, Jorge A. (1967) *A Description of Colloquial Guaraní*. The Hague: Mouton.
- Grinevald, Colette G. (1988) A Grammar of Rama. Unpublished manuscript.
- Groves, Terab'ata R.; Groves, Gordon W. & Jacobs, Roderick (1985) *Kiribatese: An Outline Description*. Canberra: Australian National University.
- Guirardello, Raquel (1999) A Reference Grammar of Trumai. Unpublished doctoral dissertation. Houston: Rice University.
- Haiman, John (1983) Iconic and economic motivation. Language 59: 781–819.
- Harriehausen, Bettina (1990) *Hmong Njua: Syntaktische Analyse einer Gesprochenen Sprache Mithilfe Daten-Verarbeitungstechnischer Mittel und Sprachvergleichende Beschreibung des Südostasiatischen Sprachraumes.* Tübingen: Niemeyer.
- Haspelmath, Martin (1989) From purposive to infinitive a universal path of grammaticization. *Folia Linguistica Historica* 10 (1–2): 287–310.
- —— (1993) A Grammar of Lezgian. Berlin: Mouton de Gruyter.
- —— (1996) Complement clauses. In Alexandr Kibrik (ed.), *Godoberi*, vol. 2, pp. 175–197. München: Lincom Europa.
- —— (2005) 'Want' complement subjects. In Martin Haspelmath, Matthew S. Dryer, David Gil & Bernard Comrie (eds.), *The World Atlas of Language Structures*, pp. 502–505. Oxford: Oxford University Press.
- —— (2008a) Frequency vs. iconicity in explaining grammatical asymmetries. *Cognitive Linguistics* 19 (1): 1–33.
- —— (2008b) Creating economical morphosyntactic patterns in language change. In Jeff Good (ed.), *Language Universals and Language Change*, pp. 185–214. Oxford: Oxford University Press.

- (2011) 'Want' complement clauses. In Matthew S. Dryer & Martin Haspelmath (eds.), *The World Atlas of Language Structures Online*. Munich: Max Planck Digital Library http://wals.info/feature/124>.
- (2013) Argument indexing: a conceptual framework for the syntax of bound person forms. In Dik Bakker & Martin Haspelmath (eds.), *Languages across Boundaries: Studies in Memory of Anna Siewierska*, pp. 197–226. Berlin: De Gruyter Mouton.
- Heath, Jeffrey (1999) A Grammar of Koyraboro (Koroboro) Senni. Köln: Rüdiger Köppe Verlag.
- Ikoro, Suanu (1996) *The Kana Language*. Leiden: Research School CNWS, Leiden University.
- Innes, Gordon (1971) A Practical Introduction to Mende. London: School of Oriental and African Studies.
- Kalectaca, Milo (1978) Lessons in Hopi. Tucson: University of Arizona Press.
- Karlsson, Fred (1999) Finnish: An Essential Grammar. London: Routledge.
- Kraft, Charles H. & Kirk-Greene, A. H. M. (1973) *Hausa*. London: Hodder and Stoughton.
- Kroeker, Menno (2001) A descriptive grammar of Nambikuara. *International Journal of American Linguistics* 67 (1): 1–87.
- Lambdin, Thomas O. (1983) *Introduction to Sahidic Coptic*. Macon, Georgia: Mercer University Press.
- Macaulay, Monica (1996) A Grammar of Chalcatongo Mixtec. Berkeley: University of California Press.
- Mosel, Ulrike (1994) Samoan. In Cliff Goddard & Anna Wierzbicka (eds.), *Semantic and Lexical Universals*, pp. 331–360. Amsterdam: John Benjamins.
- Mosel, Ulrike & Hovdhaugen, Even (1992) Samoan Reference Grammar. Oslo: Scandinavian University Press.
- Mous, Maarten (1993) A Grammar of Iraqw. Hamburg: Helmut Buske Verlag.
- Moyse-Faurie, Claire (1983) *Le drehu, langue de Lifou (Îles Loyauté)*. Paris: Société d'Études Linguistiques et Anthropologiques de France.
- Nedjalkov, Igor (1997) Evenki. London: Routledge.
- Newmeyer, Frederick J. (2003) Grammar is grammar and usage is usage. *Language* 79 (4): 682–707.
- Nikolaeva, Irina (1999) Ostyak. München: Lincom Europa.
- Noonan, Michael (1992) A Grammar of Lango. Berlin: Mouton de Gruyter.
- Olawsky, Knut J. (1999) Aspects of Dagbani Grammar. München: Lincom Europa.
- Pawley, Andrew (1994) Kalam exponents of lexical and semantic primitives. In Cliff Goddard & Anna Wierzbicka (eds.), *Semantic and Lexical Universals*, pp. 387–421. Amsterdam: John Benjamins.
- Reh, Mechthild (1985) Die Krongo-Sprache: Beschreibung, Texte, Wörterverzeichnis. Berlin: Reimer.
- Rowlands, Evan Colyn (1969) *Teach Yourself Yoruba*. London: English Universities Press
- de Saussure, Ferdinand (1972/1916) *Cours de linguistique générale*. Ed. par Tullio de Mauro. Paris: Payot.

- Saxon, Leslie (1984) Control and agreement in Dogrib. *Eastern States Conference on Linguistics*, vol. 1, 128–139. Columbus, Ohio: The Ohio State University.
- Schachter, Paul & Otanes, Fé T. (1972) *Tagalog Reference Grammar*. Berkeley: University of California Press.
- Schmidtke-Bode, Karsten (2012) The performance basis of grammatical constraints on complex sentences: A preliminary survey. In Volker Gast & Holger Diessel (eds.) *Clause-Linkage in Cross-Linguistic Perspective*, pp. 415–448. Berlin: De Gruyter.
- Smith, Lawrence R. (1982) An analysis of affixal verbal derivation and complementation in Labrador Inuttut. *Linguistic Analysis* 10 (2): 161–189.
- Sneddon, James N. (1996) *Indonesian Reference Grammar*. St. Leonards, Australia: Allen and Unwin.
- Strom, Clay (1992) *Retuarã Syntax*. Studies in the Languages of Colombia, 3. Dallas & Arlington: SIL & University of Texas.
- Tryon, Darrell T. (1970) *An Introduction to Maranungku*. Canberra: Australian National University.
- Vamling, Karina (1989) Complementation in Georgian. Lund: Lund University Press.
- Van Valin, Robert D. (1977) *Aspects of Lakhota Syntax*. Ph.D. dissertation, University of California at Berkeley.
- de Vries, Lourens (1993) Forms and Functions in Kombai, an Awyu Language of Irian Jaya, Pacific Linguistics, Series B 108. Canberra: Australian National University.
- Wali, Kashi & Koul, Omkar N. (1997) *Kashmiri: A Cognitive-Descriptive Grammar*. London: Routledge.
- Weber, David J. (1989) A Grammar of Huallaga (Huánuco) Quechua. Berkeley: University of California Press.
- Wilkins, David P. (1989) *Mparntwe Arrernte (Aranda): Studies in the Structure and Semantics of Grammar*. Ph.D. dissertation, Australian National University.
- Zipf, George K. (1935) The Psycho-Biology of Language. Boston: Houghton Mifflin.

Abbreviations

Category abbreviations follow the Leipzig Glossing Rules. Additional abbreviations:

CONST construct
DESID desiderative
ELAT elative
GENR generic
MOD modal
OPT optative
POT potential
SUBORD subordinate

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