

TURKIC NON-INFLECTIONAL PLURALS AND FEATURE BUNDLING*

ELIZABETH COPPOCK[†]

HYUN-JONG HAHM[‡]

STEPHEN WECHSLER[§]

University of Gothenburg[†], University of Guam[‡], University of Texas at Austin[§]

1 Introduction

Agreement is sometimes sensitive to person and sometimes not. For example, in French, verbs agree in person with the subject but adjectives do not:

- (1) a. Je suis belle.
I be.PRES.1SG beautiful.FEM.SG
'I [female] am beautiful.'
- b. Tu es belle.
You be.PRES.2SG beautiful.FEM.SG
'You [female, singular] are beautiful.'
- c. Elle est belle.
She be.PRES.3SG beautiful.FEM.SG
'She is beautiful.'

This asymmetry reflects a broader pattern: In a given language, adjectives agree in person only if verbs also do (Stassen 1997).

It has been suggested that there are syntactic locality constraints conditioning the distribution of person agreement. For example, Bhatt's (2005, 800ff) *Person Generalization* entails that a target can agree in person only with controllers for which the target licenses case. Boeckx (2008) relates person agreement to overt movement (e.g., to Spec,TP). Baker (2008, 2011) posits a special *Syntactic Condition on Person Agreement* (SCOPA), requiring a close syntactic relation between target and controller, roughly the specifier-head relation (cf. Chomsky 1986), for agreement in

*We thank Mark Baker for discussion, Derya Kadipasaoglu and Katayoon Badiei for providing us with native speaker judgments on Turkish, and Vladimir Ivanov and Motya Nicandrova-Adamova for judgments on Sakha. We also gratefully acknowledge funding provided by the Swedish Research Council (project title: *Pathways from pronoun to agreement and their destinations*) and the College of Liberal Arts and Social Sciences at the University of Guam.

person, but not for agreement in the other phi features, number and gender. For example, assuming that verbs project a specifier position, while predicate adjectives fail to do so, Baker is able to explain facts such as those illustrated in (1) by French, where the verb agrees in person while the adjective does not.

Suppose that there are such locality conditions on person agreement. This brings up the issue of whether the person feature is individually affected by this condition or whether the condition affects the entire “bundle”, so to speak, of features in which person is contained. On what we are calling the *Bundling Hypothesis*, phi features – person, number, and gender – are bundled together, and agree in an ‘all-or-none’ fashion (e.g. Chomsky 2001, cf. Béjar 2008, 132). This view requires an associated theory of what these bundles are, and therefore goes along nicely with *dualism* (Chomsky 2001, p. 34), which makes a distinction between two agreement feature bundles, called *Index* and *Concord* by Wechsler and Zlatić (2003). *Index*, which includes person, number, and gender, is typically realized on verbs, while *Concord*, which includes number, gender and case, is typically realized on adjectives and determiners. On this view, two kinds of target morpheme can lack person: (i) Concord morphemes (e.g. French adjectives); (ii) Index morphemes from which person distinctions have been historically lost (e.g. Northern Ostyak object agreement as analyzed in Coppock and Wechsler 2010). Combining dualism with bundling, we have the following:

(2) **Dualist/Bundling Hypothesis**

A given agreement marker is specified as either a Concord marker or an Index marker, and the Concord/Index features of a given marker must reflect all those of its target.

So a locality condition on person applies to the entire feature bundle that includes person, such as the person/number bundle found on the French finite verbs in (1). This means that it is not possible to have a mismatch in one of the features, and selective agreement is not possible: If a given target morpheme reflects the person feature of the controller in any controller position, then that target morpheme will reflect the controller’s person in every controller position.

The alternative to dualism is *monism*. On this view, verbal and adjectival agreement are of the same ilk, and there is no distinction between Index and Concord. Given that verbal and adjectival agreement differ, monism goes along with *separatism*: An agreement relation can target specific agreement features individually.

(3) **Monist/Separatist Hypothesis**

Verbal and adjectival agreement involve the same set of features, and a given agreement relation may involve any subset of these features.

For example, Baker (2008, 2011) argues that when his Structural Condition on Person Agreement (SCOPA) is not met, person agreement can be ‘left behind’, while agreement in gender and number remains.

To support this view, Baker points to situations involving verbs where the structural proximity between controller and target required by the SCOPA for person agreement does not hold. In these cases, Baker’s theory predicts that the verb should lose its ability to agree in person, despite the availability of a person paradigm. The ability to agree in number should not be affected, so the verb should still agree in number. As Baker (2008, pp. 85–6) puts it:

... Therefore, the functional head most immediately associated with adjectives can never agree in person for fundamental reasons.

But for verbs there should be chances of finding intermediate cases. There might very well be instances in which a functional head dominating VP agrees with something that it does not merge with... *In these situations, the expectation of my theory is that the verbal head can still agree with a nearby NP in number and gender, but should lose the ability to agree in person.* Such instances of verbal agreement would be adjective-like in this respect, and would support the notion that the same category-neutral theory of agreement applies to both. [emphasis added]

A case where person morphology is available, but the target is insensitive to person only in certain non-local configurations is thus exactly the type of case that would lend strong support to Baker's theory.

As Baker (2011) points out, exceptional case marking (ECM) constructions in Sakha (Northern Turkic) appear to constitute such a case. In Sakha ECM constructions, there are verbs that reflect the number feature of their controller but not the person feature, even though verbs normally inflect for person, as we will discuss in detail. But we maintain that this is not the kind of selective agreement that is ruled out by the bundling hypothesis. The cases in question involve a form that may appear at first to be a third person plural form, but is in fact just a plural marker, and not a person maker. This means that it is possible to maintain the bundling hypothesis even in light of this data.

2 The importance of Sakha

2.1 Descriptive Typology

In Baker (2008), evidence is marshalled from a wide range of languages in support of the SCOPA. Baker points to a wide range of cases where verbs fail to agree in person, and argues that in these cases, the verb lacks sufficient proximity to its controller. However, none of the cases that Baker points to in his 2008 book are relevant to our discussion here; only the case of Sakha described in his 2011 paper is the type of case we are interested in. To see this, it is helpful to make some distinctions between different types of person restrictions.

The interesting type of case is what we are labelling *person insensitivity*; this can be defined as follows:

(4) **Person Insensitivity**

A target is *insensitive to person* in a given configuration if it displays the same form across all person values for the controller there (holding other agreement features constant).

Predicate adjectives in French, for example, are insensitive to the person of their controller; they have the same form regardless of whether the controller is 1st, 2nd or 3rd person (cf. (1)). We can schematize this phenomenon as follows: there is a singular form that appears in 1st, 2nd and 3rd person singular, and a plural form that appears in 1st, 2nd and 3rd person plural.

	SG	PL
1	A	B
2	A	B
3	A	B

Again the target is *insensitive* to the person feature of the controller when the paradigm looks like this.

In cases like French, there are no dedicated 1st or 2nd person forms. But in principle, there could be person insensitivity where a full person/number paradigm exists, and in some constructions, the target inflects for person, but in certain other constructions, it ceases to be sensitive to person, maintaining its sensitivity to number:

Reduced paradigm			Full paradigm		
	SG	PL		SG	PL
1	A	B	1	C	D
2	A	B	2	E	F
3	A	B	3	A	B

Thus the person-insensitive paradigm is drawn from a full person/number agreement paradigm in which person distinctions are made. If the reduced paradigm shows up under certain structural configurations, then this type of situation can be appropriately labelled *person-insensitivity under a structural condition*. This is the type of case illustrated by Sakha, and this is the type of case that is interesting here.

Another type of person restriction is *person-conditioned effability*, defined as follows:

(5) **Person-Conditioned Effability**

If a structure is only grammatical when a 3rd person element fills a certain position within it, then (3rd) person is a condition on the effability of the structure.

We are borrowing the term ‘effability’ from Baker (2008), who touches on roughly this distinction in his book (cf. Baker 2008: 109). We schematize person-conditioned effability as follows:

	SG	PL
1	*	*
2	*	*
3	3SG	3PL

Here, there is number agreement in 3rd person, but 1st and 2nd person controllers cannot appear.

Examples of person-conditioned effability come from person-case constraint (PCC) effects, such as the one in Shambala. In ditransitive constructions in Shambala, the verb cross-references both the theme and the recipient, and it is possible to have a 1st person recipient and a 3rd person theme (Duranti 1979: 36, cited in Baker 2008: p. 97):¹

- (6) A -za -m -ni -et -e -a.
 she -PAST -him -me -bring -APPL -FV
 ‘She has brought him to me’

¹In the gloss, ‘FV’ stands for ‘final vowel’. Baker suggests that it might be an indicative mood marker.

But it is not possible to have a 3rd person recipient and a 1st person theme:

- (7) *A -za -ni -mw -et -e -a.
 she -PAST -me -him -bring -APPL -FV
 ‘She has brought me to him [intended]’

The verb form in (7) does not exist.

A famous example that falls roughly into the category of person-conditioned effability comes from Icelandic dative subject constructions. When the subject is dative, the verb agrees in number with the nominative object, as the contrast between the following two examples show (Sigurðsson 1996, i.a.).

- (8) Henni leidd-ust Þeir.
 her.DAT was.bored.by-3PL they.NOM
 ‘She was bored with them’

- (9) Henni leið-ist bókin sín.
 her.DAT was.bored.by-3SG book self’s
 ‘She finds her own book boring’

But local person nominative objects are disallowed; a nominative object like *we* or *you [plural]* is ungrammatical (although there are some exceptions):

- (10) *Henni leidd-umst við.
 her.DAT was.bored.by-1PL we.NOM
 ‘She was bored with us.’

- (11) *Ég veit að honum lík-ið Þið.
 I know that him.DAT like-2PL you.NOM.PL
 ‘I know that he likes you all.’

Hence this counts as person-conditioned effability; 1st and 2nd person are ineffable in this configuration. Cases of person-conditioned effability do not bear on the discussion here because they do not display selective agreement, i.e., agreement in one feature but not another. We do not see agreement in number without agreement in person in these cases.

Considering also the possibility of non-agreement, where the verb simply does not vary depending on any of the features of the putative controller, we have four possible situations: *Full agreement*, where there are distinctions in person and number (syncretism is possible, as long as both person and number distinctions are made); *person insensitivity*, where number distinctions are made but person distinctions are not; *person-conditioned effability*, where 1st and 2nd person controllers are ineffable; and *non-agreement*.

Full agreement			Person insensitivity		
	SG	PL		SG	PL
1	1SG	1PL	1	(3)SG	(3)PL
2	2SG	2PL	2	(3)SG	(3)PL
3	3SG	3PL	3	(3)SG	(3)PL

Person-conditioned effability			Non-agreement		
	SG	PL		SG	PL
1	*	*	1	<i>def</i>	<i>def</i>
2	*	*	2	<i>def</i>	<i>def</i>
3	3SG	3PL	3	<i>def</i>	<i>def</i>

The type of person restriction that we are interested in here is person-insensitivity under a structural condition. All of the person agreement restrictions discussed in Baker (2008) in which designated first and second person forms exist (in Passamaquoddy, Icelandic, Chicasaw, Nahuatl, Lokaa, Basque, and a special dialect of English) are cases of ineffability (Coppock and Wechsler, 2010; Coppock, 2011). Baker (2008) discusses some cases of person-insensitivity (e.g. adjective agreement in Swahili), but none in which there are designated first and second person forms.² Baker (2008) expands the empirical base with two new cases: object agreement in Northern Ostyak and ECM constructions in Sakha. Object agreement in Northern Ostyak is the partial-agreement type, but it is not structurally conditioned (cf. Coppock and Wechsler (2010) for further discussion of Northern Ostyak). Sakha is the only case of person-insensitivity under a structural condition that we are aware of.

2.2 Sakha: Structurally-conditioned person insensitivity

Sakha verbs normally agree with their subjects in person and number; here is an example paradigm:

- (12) a. Min bytaam-myn.
I slow-1SG
'I am slow.'
- b. Bihigi bytaam-myt.
we slow-1PL
'We are slow.'
- c. En bytaŋ-ŋyn.
you.SG slow-2SG
'You (sg.) are slow.'
- d. Ehigi bytaaŋ-ŋyt.
you.PL slow-2PL
'You (pl.) are slow.'
- e. Kini bytaan.
he slow
'He is slow.'

²We consider the phenomenon in Gujarati that he discusses a case of non-agreement.

- f. Kiniler bytaan-nar
 they slow-PL
 ‘They are slow.’

But ECM constructions allow either full agreement (13) or agreement in number only (14) (Vinnokurova, 2005):

- (13) Kini ehigi(-ni) kyajtar-dy-gyt dien isti-bit.
 He you(-ACC) lose-PAST-2PL COMP hear-PAST
 ‘He heard that you lost.’

- (14) Kini ehigi-ni kyajtar-dy-lar dien isti-bit.
 He you-ACC lose-PAST-PL COMP hear-PAST
 ‘He heard that you lost.’

Here we have a case of (optional) person insensitivity, since the plural inflection on the target does not reflect the person feature of controller. And the target is one that under other circumstances does reflect the person feature of the controller. If the lack of person agreement here is due to the syntactic distance between the controller and the target, as Baker claims, then this is indeed a case of person insensitivity under a structural condition. Hence this seems to be exactly the type of case that is needed to support separatism over bundling.

As convincing as this evidence may seem, we maintain that it is still consistent with the bundling hypothesis, when we look closely at it. The key example illustrating person insensitivity under a structural condition, (14), involves the form *kyajtar-dy-lar* ‘lose-PAST-PL’. This may seem like a third person plural form given the paradigm in (12) (note that the form *-nar* in (12f) is a variant of *-LAR* produced by consonant assimilation), but we argue that *-LAR* is in fact a Concord marker and does not encode a third person feature.

3 Against *-LAR* as a person marker

Again, under the dualist hypothesis, there are two different types of agreement: Index and Concord. Index agreement inflections typically derive historically from incorporation of personal pronouns. Hence Index agreement comprises the features person, number, and gender (crucially, person). Concord agreement inflections have other sources (e.g. classifiers, demonstratives), and therefore do not carry person as a feature, bearing only number and gender.

Our hypothesis is that *-LAR* is a Concord marker, and hence lacks person, whereas the 1st and 2nd person endings are Index markers. In other words, *-LAR* is not the realization of a 3rd person target but just a plural marker (hence the gloss PL in (14)). It is not part of the person agreement paradigm, but rather attaches freely when non-redundant (hence it is blocked by 1PL or 2PL markers). Evidence for this analysis comes from its distribution, history, and morphological ordering properties.

3.1 Distribution

Our first argument that *-LAR* does not encode person agreement comes from the fact that *-LAR* has a wider distribution than the average person agreement marker. It also occurs on nominals lacking

another expression of plurality, including common nouns and 3rd person pronouns:³

(15) kinige-ler
book-PL
'books'

(16) kini-lar
3-PL
'they'

(It does not normally occur on 1st and 2nd person plural pronouns as these have an independent expression of plurality; these pronouns are morphologically simple, expressing person and number in a single morpheme.) Plural noun inflection generally lacks person, of course. Furthermore, the so-called 'alliterative agreement' that we see here, with the same inflection on the controller and the target, typically lacks person, as in Slavic gender agreement (Wechsler and Zlatić, 2003). In contrast, formal symmetry in person agreement, when it occurs, involves a match between a full controller pronoun and a target affix descended from an incorporated pronoun.

3.2 Optionality

Another unusual aspect of *-LAR*'s distribution is that it is optional on nouns. This is shown with the following two examples from Kaan and Vinokurova (2003, ex. (7)).

- (17) a. Xonuuga at meccije syldjar.
field-DAT horse graze-GER PRES
'A horse/Horses is/are grazing in the field.'
- b. Xonuuga at-tar meccije syldjallar.
field-DAT horse-PL graze-GER PRES
'Horses are grazing in the field.'

Kaan and Vinokurova (2003, p. 183) write that (17a) "can be interpreted as either singular or plural depending on lexical and/or pragmatic factors," while, of course, "a singular reading is excluded" in (17b), where plural is explicitly marked.

Although *-LAR* is not optional on verbs in Sakha as shown in (18), it is optional on verbs (as well as nouns) in Turkish, as shown in (19).⁴

(18) Kini-ler kyajtar-dy*(-ler)
3-PL lose-PAST-(PL)
'They lost.'

(19) On-lar kaybet-ti(-ler)
3-PL lose-PAST(-PL)
'They lost.'

³We assume without argument that the *-LAR* appearing on nouns is the same morpheme, or at least encodes the same phi-feature, as the one on predicates.

⁴In Turkish, the plural marker *-LAR* assimilates in the vowel but not in the initial consonant.

This was observed for Turkish by Hahm (2010). According to our Turkish informants, the variant of (19) with *-LAr* sounds “redundant” in the presence of an overt subject, and the variant without *-LAr* is “probably more common” than that one. When there is no overt subject, *-LAr* is required in order to show that the subject is plural.

This optionality suggests that *-LAr* is not an inflectional suffix, but is what has been referred to as a “non-inflectional” plural marker (Wiltschko, 2008; Butler, 2011). As such, it does not participate in an inflectional paradigm but rather functions independently as a marker of plurality. This entails of course that it does not occupy the third person plural slot of the person/number paradigm.

3.3 Predicate *-LAr* with local person controllers

One of the clearest indications that *-LAr* is not a 3rd person marker is that it can have a non-3rd person controller. In the example below (Vinokurova 2005, ex. 25a), *-LAr* on the predicate nominal *fisherman* signals plurality of the subject, which is first person singular.

- (20) Bihigi balyksyt-tar buol-a-byt.
 we fisherman-PL be-AOR-1PL
 ‘We are fishermen.’

The above example involves a copula, but this also occurs in constructions lacking a copula:

- (21) Bihigi balyksyt-tar-byt.
 we fisherman-PL-1PL
 ‘We are fishermen.’

- (22) Ehigi balyksyt-tar-gyt.
 you fisherman-PL-2PL
 ‘You are fishermen.’

Here again, *-LAr* signals plurality of the subject, which is not third person. This leads to the conclusion that *-LAr* is not a third person marker. As Vinokurova (2005, 144, fn. 8) puts it: “*-LAr* is sometimes considered to be endowed with a [+third person] feature in addition to [+plural] (see Tenishev et al. 1988:8). That it is compatible with first and second person subjects, as is evident from [the examples above], refutes this view.”

Further showing that *-LAr* is not restricted to 3rd person, *-LAr* appears on 1st and 2nd person plural pronouns in Turkish (although not in Sakha). 2PL *siz* can be semantically plural or formal; affixing *-LAr* makes it unambiguously semantically plural (Hahm 2010):

- (23) Siz-ler get-di-niz.
 you.PL-PL come-PAST-2PL
 ‘You [plural] came.’

- (24) Siz get-di-niz
 you.PL come-PAST-2PL
 ‘You [formal or plural] came.’

Recall that *-LAR* occurs on nominals lacking an independent expression of semantic plurality, so 1st and 2nd person pronouns resist it. Honorific *siz* (in Turkish) has a plural agreement feature but it does not always express semantic plurality; hence it does not always resist *-LAR*. If *-LAR* were third person, then it should be incompatible with 1st and 2nd person pronouns, but since it is purely a plurality marker, it can go on 1st and 2nd person pronouns.

3.4 Historical origin

The origin of *-LAR*, unlike first and second person verbal agreement markers, is not pronominal. In Old Turkic, there were no subject agreement suffixes; pronominal subjects were placed to the right of the predicate (Adamović, 1985; Good and Yu, 2005):

(25) kel-ür ben.
 come-IMPERF I
 ‘I am coming.’

(26) kişi sen
 man you
 ‘You are a man.’

In the 13th century, these began to develop into clitics, as shown in the following paradigm (Adamović, 1985, p. 27).

(27)	(ben) bay-van	‘I am rich.’
	(sen) bay-sin	‘You are rich.’
	(ol) bay-durur	‘He/she/it is rich.’
	(biz) bay-uz	‘We are rich.’
	(siz) bay-siz	‘You (PL) are rich.’
	(anlar) bay-durur(-lar)	‘They are rich.’

Notice that the third person forms involve *durur*, which is not related to the pronoun, and did not develop into a subject agreement marker. At this stage, plurality is expressed separately from third person in the third person plural through *-LAR*, and *-LAR* is optional, unlike the person agreement clitics.

Thus the origin of *-LAR* does not seem to be pronominal; it seems more likely that, as Hahm (2010) suggests, *-LAR* started out on nouns and spread to verbs.

3.5 Morphological paradigm

A morphological reflex of the fact that *-LAR* originated in the nominal realm and later moved into the verbal realm is that *-LAR* is expressed separately from person. In the 1st and 2nd person, plurality is expressed in the same morpheme as person. But in the third person, the plural is formed by attaching *-LAR* to the 3rd singular form, with consonant assimilation. Krueger (1962, pp. 126–7) writes: “In the 3rd p. pl., the endings are the same as those of the 3rd p. sg., to which the regular plural in *-lar/-ler* has been added. The only change is that regressive assimilation functions in such a way that the final *-r* of the 3rd p. sg. assimilates to the plural morpheme.” For example, consider the present and past tense paradigms for ‘eat’:

(28) **Present tense paradigm for ‘eat’**

	SG	PL
1	ahiibin	ahiibit
2	ahiigin	ahiigit
3	ahiir	ahiillar

(29) **Past tense paradigm for ‘eat’**

	SG	PL
1	ahaatim	ahaatibit
2	ahaating	ahaatigit
3	ahaata	ahaatilar

This fact manifests itself even more impressively in the present imperative, where 3rd person is marked and 2nd person is unmarked. In the present imperative, 3rd person is expressed with a separate morpheme preceding *-LAR*. *-TIn* is found in both 3sg and 3pl (Pakendorf, 2007, p. 208):

(30) **Imperative paradigm**

	SG	PL
1	-I:m	-Iaγing
2	∅	-(I)ng
3	-TIn	TInnAr

Thus *-TIn* is the 3rd person marker, and *-LAR* (*-nAr* after consonant assimilation) is not; it is just a plural marker.

Another morphological consequence of its distinctive origin is that *-LAR*, in Turkish at least, has freer order with respect to other morphemes than other person markers; in Turkish, *-LAR* can precede or follow modality marker *-Dir*, as in *gid-iyor-lar-dir* or *gid-iyor-dur-lar* ‘they are presumably going’. This is not possible for e.g. the 1st person singular affix; *gid-iyor-um-dir* ‘I am presumably going’ is acceptable but not **gid-iyor-dir-um* (Hahm, 2010).

4 Conclusion

We have proposed that *-LAR* is not 3rd person plural; it is just plural. As such, it is not part of the person agreement paradigm, but rather attaches freely as long as it is non-redundant (so it is blocked by 1PL or 2PL). In other words, it is a *non-inflectional* plural marker (Wiltschko, 2008; Butler, 2011). We have also argued that it marks Concord rather than Index agreement (like other NP-internal agreement markers). Evidence comes from its distribution (optionality, co-occurrence with local persons), separate morphological expression from person, and history.

More broadly, we maintain that agreement on a target that contains person will always reflect the person feature of the controller. The evidence that we have presented in this paper does not militate against the possibility that person agreement (i.e. agreement that includes the person feature) may be structurally conditioned, as implied by Baker’s SCOPA; it may be. But even if it is, and even if ECM constructions in Sakha present a case where the controller is too far from the target to agree with it in person, this does not mean that agreement features can be selectively ignored. In other words, we can still maintain the bundling hypothesis.

Our claim entails that ECM constructions in Sakha result from a very special confluence of events, including the adoption of a Concord marker into the verbal morphology. If *-LAR* were in fact a third person marker, then examples like (14) should not be possible according to the bundling hypothesis. Such an affix would not be able to enter into an agreement relation with a second person plural controller and reflect its number feature while ignoring its person feature. Because *-LAR* is a Concord marker, it lacks a person specification, and is therefore compatible with controllers of any person. If a language can be found in which a genuinely third person plural affix reflects the number feature of a second person controller, then the bundling hypothesis will be falsified. As things stand, the bundling hypothesis remains viable, and, given that it is the more restrictive of the two, it is the one that should be adopted.

References

- Adamović, Milan. 1985. *Konjugationsgeschichte der türkischen sprache*. Leiden: E. J. Brill.
- Baker, Mark C. 2008. *The syntax of agreement and concord*. Cambridge: Cambridge University Press.
- Baker, Mark C. 2011. When agreement is for number and gender but not person. *Natural Language and Linguistic Theory* 29:875–915.
- Béjar, Susana. 2008. Conditions on phi-agree. In *Phi theory: Phi-features across modules and interfaces*, ed. Daniel Harbour, David Adger, and Susana Béjar. Oxford: Oxford University Press.
- Bhatt, Rajesh. 2005. Long distance agreement in Hindi-Urdu. *Natural Language and Linguistic Theory* 23:757–807.
- Boeckx, Cedric. 2008. *Aspects of the syntax of agreement*. London: Routledge.
- Butler, Lindsay Kay. 2011. The DP-adjoined plural in Yucatec Maya and the syntax of plural marking. Ms., University of Arizona, UC Santa Cruz.
- Chomsky, Noam. 1986. *Knowledge of language: Its nature, origin and use*. Praeger.
- Chomsky, Noam. 2001. Derivation by phase. In *Ken Hale: A life in language*, ed. Michael Kenstowicz, 1–52. Cambridge, MA: MIT Press.
- Coppock, Elizabeth. 2011. Person agreement restrictions and the dualist hypothesis. Talk presented at Lund University.
- Coppock, Elizabeth, and Stephen Wechsler. 2010. Less-travelled paths from pronoun to agreement: The case of the Uralic objective conjugations. In *The Proceedings of the LFG '10 Conference*, ed. Tracy Holloway King, 165–85. Stanford: CSLI Publications.
- Good, Jeff, and Alan C. L. Yu. 2005. Morphosyntax of two Turkish subject pronominal paradigms. In *Clitic and affix combinations: Theoretical perspectives*, ed. Lorie Heggie and Francisco Ordóñez, 315–342. Amsterdam: John Benjamins.
- Hahm, Hyun-Jong. 2010. A cross-linguistic study of syntactic and semantic agreement: Polite plural pronouns and other issues. Doctoral Dissertation, University of Texas at Austin.
- Kaan, Edith, and Nadezhda Vinokurova. 2003. Resolving number ambiguities in Sakha: Evidence for the Determiner Phrase. In *From NP to DP: The syntax and semantics of noun phrases*, ed. M. Coene and Yves d'Hulst, 179–194. Amsterdam: John Benjamins.
- Krueger, John R. 1962. *Yakut manual*, Vol. 21 of *Uralic and Altaic Series*. Bloomington: Indiana University.

- Pakendorf, Brigitte. 2007. *Contact in the prehistory of the sakha (yakuts): Linguistic and genetic perspectives*, Vol. 170 of *LOT Dissertation Series*. Utrecht: LOT.
- Sigurðsson, Halldór. 1996. Icelandic finite verb agreement. *Working Papers in Scandinavian Syntax* 57:1—46. University of Iceland.
- Vinokurova, Nadezhda. 2005. Lexical categories and argument structure: a study with reference to Sakha. Doctoral Dissertation, University of Utrecht.
- Wechsler, Stephen, and Larisa Zlatić. 2003. *The many faces of agreement: Morphology, syntax, semantics, and discourse factors in Serbo-Croatian agreement*. Stanford: CSLI Publications.
- Wiltschko, Martina. 2008. The syntax of non-inflectional plural marking. *Natural Language and Linguistic Theory* 26:639–694.