From Split-Ergativity Towards Accusativity in Heritage Kurmanji and Georgian*

Ümit Atlamaz[†], Ömer Demirok[‡], Metin Bağrıaçık[§] Boğaziçi University

HLS2: Heritage Language Syntax 2, December 15 - 17, 2021

1 Introduction

Standard Kurmanji and Standard Georgian both have split case alignment systems.

(1)	Standard Kurmanji (SK)			(2)	Standard Geor	gian (SG)	
	CONTEXT	PATTERN	ALIGNMENT		CONTEXT	PATTERN	ALIGNMENT
	present past	NOM-OBL OBL-NOM	$accusative \\ ergative$		imperfective perfective	NOM-ACC ERG-NOM	accusative ergative

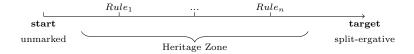
Heritage variants of Kurmanji and Georgian in close contact with Turkish shift towards an accusative system.

(3)	Heritage K	Kurmanji (1	HK)	(4)	Heritage Geor	gian (HG)	
	CONTEXT	PATTERN	ALIGNMENT		CONTEXT	PATTERN	ALIGNMENT
	present	NOM-OBL	accusative		imperfective	NOM-ACC	accusative
	\mathbf{past}	OBL-OBL	$tri ext{-}partite$		perfective	NOM-ACC	accusative

Main claim

• Heritage case patterns in HK and HG are instances of **incomplete attainment**.

These patterns emerge naturally in the monolingual acquisition path and heritage speakers are stuck along the way.



Goals of the talk

- 1. present case patterns across standard and heritage dialects of Kurmanji and Georgian
- 2. show that the Dependent Case Theory can capture all the patterns including the heritage patterns
- 3. speculate that the role of Turkish might be reducing the input necessary to attain the target patterns

^{*}For comments and helpful discussion, we thank Balkız Öztürk, four anonymous reviewers, and the participants of ST@BU.

 $^{^{\}dagger} umit. at lamaz@boun.edu.tr$

[‡]omer.demirok@boun.edu.tr

[§]metin.bagriacik@boun.edu.tr

2 Standard Kurmanji

Standard Kurmanji is a tense based split ergative language with an accusative alignment in present tense and an ergative alignment in the past tense.¹

[unacc.]

[unerg.]

(5) Accusative Alignment - Present Tense

. ez dı-kev-ım I.NOM IMPF-fall-1SG

'I fall.'

b. ez di-rv-im I.NOM IMPF-run-1SG

'I run.'

c. ez **te** dı-wun-ım

I.NOM you.OBL IMPF-see-1SG

'I see you. [tran.]

(6) Ergative Alignment - Past Tense

a. ez ket-ım

I.NOM fall.PAST-1SG

'I fell.'

ez rvi-m

I.NOM run.PAST-1SG

'I ran.'

 \mathbf{te} ez di-m

you.OBL I.NOM see.PAST-1SG

'You saw me.

[tran.]

[unerg.]

[unacc.]

Summary of Case Alignment in Standard Kurmanji

present tense			past tense		
valence	arg. count	pattern	valence	arg. count	pattern
unaccusative	1	NOM	unaccusative	1	NOM
unergative	1	NOM	unergative	1	NOM
transitive	2	NOM - OBL	transitive	2	OBL - NOM

3 Heritage Kurmanji (HK)

Our language consultant (34) is a Turkish-Kurmanji bilingual from Adıyaman, Turkey. They grew up in a community where grandparents are monolingual Kurmanji speakers while parents are Turkish-Kurmanji bilinguals but the parents' contact with Turkish was late (around age 7). The parents decided to raise our language consultant as a monolingual Turkish speaker, however, our consultant was able to pick up Kurmanji as they lived with the extended family including monolingual grandparents.

The key difference between SK and HK is the OBL-OBL pattern observed in transitive past tense clauses.

(7) Accusative Alignment - Present Tense

a. ez te diwun-im.
I.NOM you.OBL see.PRES.IMPF-1SG
'I see you.'

(8) OBL-OBL Alignment - Past Tense

a. M1 te di.
I.OBL you.OBL see.PAST
'I saw you.'

Summary of Case Alignment in Heritage Kurmanji

resent tense			past tense		
valence	arg. count	pattern	valence	arg. count	pattern
unaccusative	1	NOM	unaccusative	1	NOM
unergative	1	NOM	unergative	1	NOM
transitive	2	NOM - OBL	transitive	2	OBL - OBL

¹The defining property of the "standard" is split-ergativity. The standard split ergative patterns can be observed across many geographical variants where lexical and grammatical variation is observed. The data we present comes from the Adıyaman variety and matches the "standard" variety described by Dorleijn (1996) and Thackston (2006) in all the relevant aspects.

The heritage pattern indicates a shift toward accusativity.

Shift towards Accusativity

Standard	l Kurmanji	Heritage	Kurmanji
tense	pattern	tense	pattern
present	NOM - OBL	present	NOM - OBL
past	OBL - NOM	past	OBL - OBL

Key observations

- 1. The heritage pattern emerges in a PLD context where obl-obl is not observed.²
- 2. The heritage pattern described above is the same as the "non-standard dialect" described by Dorleijn (1996), Haig (2004), and Gündoğdu (2011). We will call it Dialect B.
- 3. Dialect B has been reported to be spoken in Diyarbakır, Muş, and Şırnak, which have no geographical contact with where our consultant was brought up (Adıyaman).

Conclusion

HK and Dialect B developed independently and converge on the same case patterns.

Key Question

• Is this change due to contact with Turkish or is it due to language internal factors?

Sneak Peek: Short Answer and a Speculation

- Claim: The shift towards accusativity in Kurmanji is emergent due to the nature of split ergativity.
- Speculation: The impact of contact with Turkish might be reduced input.

4 Accounting for Ergativity: Dependent Case Theory

Dependent Case Theory (DCT) Marantz (1991) was proposed to account for structural accusative and ergative case. We adopt the particular implementation of the DCT as formulated by Baker (2015).

(9) Dependent Case Rules

a. ↑: If NP1 c-commands NP2, assign NP1 ergative.
b. ↓: If NP1 c-commands NP2, assign NP2 accusative.
upward dependent case downward dependent case

The Dependent Case Rules formulated above predict the following case patterns.

intransitive verbs: no dependent case We assume NOMINATIVE to be the realization of no dependent case. valence external argument internal argument unaccusative NOM aNothing hinges on this assumption. It is quite possible for NOMINATIVE to be the realization of lack of case, default case, agree assigned case, unmarked case, etc. We are also agnostic about the terminology on nominative vs. absolutive.

²Parents and the extended family members of our consultant find sentences with the OBL-OBL pattern unacceptable.

transitive v	transitive verbs: dependent case patterns						
Alignment	Case Pattern	Direction	Dependent Case Rule				
Accusative	NOM-ACC	\downarrow	downward dependent case				
Ergative	ERG-NOM	\uparrow	$upward\ dependent\ case$				
Tripartite	ERG-ACC	$\uparrow \downarrow$	both rules apply				
Unmarked	NOM-NOM		neither rule applies				

The Learning Problem

• How does one learn the Dependent Case Rules?

Working Hypothesis

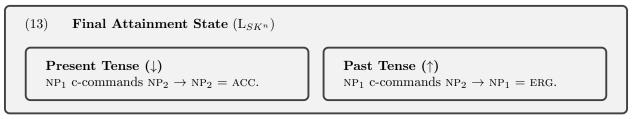
- Positive evidence is required for learning the Dependent Case Rules.
- Learning the Dependent Case Rule amounts to setting the direction parameter of the dependent rule given "sufficient" data.
- Generalization follows from underspecification.

For example, the accusative alignment in Turkish can be accounted for as the reasult of a learnt downward dependent case rule with sufficient data. Once the learner learns the rule in (10) with sufficient input like in (11), they can generate (12) thanks to underspecification in the rule.

- (10) Final Attainment State in Turkish (L_{T^n}) NP₁ c-commands NP₂ \rightarrow NP₂ = ACC.
- (11) Turkish: Present (NOM-ACC)
 - a. Ali Ayşe-yi gör-üyor. ali.NOM ayşe-ACC see.PRES.IMPF 'Ali sees Ayşe.'
 - b. Ali Ayşe-yi bil-iyor.ali.NOM ayşe-ACC bil.PRES.IMPF 'Ali knows Ayşe.'
- (12) Turkish: Past (NOM-ACC)
 - a. Ali Ayşe-yi gör-dü. ali.NOM ayşe-ACC see.PAST 'Ali saw Ayşe.'

4.1 Accounting for Split Ergativity: Dependent Case Theory

Split ergativity complicates the *learning problem* significantly. Two distinct alignment patterns are observed in the same language under different contexts. The target attainment state is given in (13).



 L_{SK^n} generates the correct patterns for Standard Kurmanji. Following Atlamaz and Baker (2018), we assume that the split ergativity in Kurmanji can be captured by the grammar in (13).

4.2 Learning L_{SK^n}

We entertain a Single Grammar Hypothesis where Kurmanji case patterns emerge from a single case grammar across tenses.³

Single Grammar Hypothesis

• In Kurmanji, a single case grammar is learnt and parameterized across tenses.

4.3 Learning Paths in the Single Grammar Hypothesis

General Assumptions:

- 1. Primary Linguistic Data is random.
- 2. Learning paths are not random. Learning case rules is guided by the principles of grammar, i.e. the Dependent Case Theory.

Specific Assumptions for Split Ergativity:

- 1. Two Dependent Case Rules need to be learnt (DOWNWARD and UPWARD).
- 2. Context associated with each rule needs to be learnt (e.g. PAST vs. PRESENT)
- 3. Dependent case rules and context specifications can be learnt simulatenously or separately.

Given these assumptions, our Single Grammar Hypothesis predicts the following learning paths.⁴

Path 1

Step 1: Learn the Downward Rule

 NP_1 c-commands $NP_2 \rightarrow NP_2 = ACC$.

NOM-OBL

Step 2: Learn the Upward Rule

 NP_1 c-commands NP_2 & T=PAST $\rightarrow NP_1 = ERG$.

NOM-OBL in present tense
OBL-OBL in past tense

Step 3: Add Tense in Downward Rule

NP₁ c-commands NP₂ & T=PRESENT

 \rightarrow NP₂ = ACC.

NOM-OBL in present tense
OBL-NOM in past tense

Step 3 reaches L_{SK^n} .

Path 2

Step 1': Learn the Upward Rule

 NP_1 c-commands $NP_2 \rightarrow NP_1 = ERG$.

OBL-NOM

Step 2': Learn the Downward Rule

 NP_1 c-commands NP_2 & T=PRESENT $\rightarrow NP_2 = ACC$.

OBL-OBL in present tense
OBL-NOM in past tense

Step 3': Add Tense in Upward Rule

 NP_1 c-commands NP_2 & T=PAST

 \rightarrow NP₁ = ERG.

NOM-OBL in present tense OBL-NOM in past tense

Step 3' reaches L_{SK^n} .

³We also entertained a multiple grammar hypothesis where the case systems for present tense and past tense are learnt as two distinct grammars. However, this made some predictions falsified by acquisition data. Thus we abandoned this hypothesis.

⁴Step 2 and 2' incorporates tense in a single step. The reasoning for this is that learning a more specific rule accompanies some specific context. This conflation is not a logical necessity. One could separate Step 2 into two independent learning steps applying in random order. The trojectories and the ultimate state wouldn't change. It would only introduce an optionality into the system until tense is encoded. We don't have any evidence for or against this optionality in child acquisition data in Kurmanji.

4.4 Monolingual Acquisition Data

Monolingual acquisition data indicates that the predictions of Step 2 and Step 2' are attested. Facts in this section are from Mahalingappa (2009), who documents the monolingual acquisition of split ergativity in Kurmanji with a cross-sectional longitudinal study.

Facts

- 1. Repeated use of split ergative starts as early as 2;6.
- 2. Adult language is consistently split ergative.⁵
- 3. Children aged 3;6 4;3 dominantly use OBL-OBL in past tense. (as predicted by Step 2)
- 4. There are instances of OBL-OBL in present tense although rare.

(14) Adult - child dialogue

```
a. mı tu ne-bir-i
I.OBL you.NOM NEG-take.PAST-2SG
'I didn't take you.'
```

adult

b. na te mı bir. no you.OBL I.OBL take.PAST 'No, you took me.'

child (2;6)(Mahalingappa 2009:56)

OBL-OBL in past tense is quite common in child speech.

```
(15) a. te wi diti-ye you.OBL he.OBL see.PAST-COP 'You saw him'
```

(Mahalingappa 2009:51)

b. te mi xist you.OBL I.OBL hit-PAST 'You hit me.'

(Mahalingappa 2009:59)

(16) wey te pir meryan digre wow you.OBL very people.OBL hold.PRES.IMPF 'you hold on to people too much'

child (2;6-3;3) (Mahalingappa 2009:60)

4.5 Accounting for Heritage Kurmanji

Heritage Kurmanji lacks the tense specification for the Downward Dependent Case Rule.

(17) Final Attainment State(L_{HK^n})

```
Downward Case Rule (\downarrow)
NP<sub>1</sub> c-commands NP<sub>2</sub>
\rightarrow NP<sub>2</sub> = ACC.
```

Upward Case Rule (\uparrow)

NP₁ c-commands NP₂ & T=PAST \rightarrow NP₁ = ERG.

- L_{HK^n} emerges naturally as the Step 2 in Path 1.
- The learner needs to do **hypothesis testing** to verify the predictions of the *downward dependent case* rule to be able to learn the tense specification.
- They never revise the downward rule and they are stuck at Step 2.

Speculation: This might be due to Turkish being the dominant language causing reduced input.⁶

⁵Mahalingappa (2009) reports some small numbers of OBL-OBL use in adult language but the examples provided seem to be instances with lexical case which we exclude from the consideration as lexical case is distinct from dependent case.

 $^{^6}$ We remain agnostic as to whether the reduced input is absolute or relative.

5 Georgian

- (Standard) Georgian is a split-ergative language:
 - accusative alignment in imperfective aspect
 - ergative alignment in perfective aspect (Harris 1982).
- The ergative alignment in Georgian is different from the canonical type that Standard Kurmanji illustrates.
 - Georgian exhibits what Woolford (2015) calls an 'active-ergative' alignment where subjects of unergatives and subjects of transitives are uniformly marked with ERG while subjects of unaccusatives are NOM along with objects of transitives.⁷
 - (18) Standard Georgian Nash (1996)
 - a. Gogo-m xe daxat'a girl-ERG tree.NOM draw.PST.3SG 'The girl drew a tree.'

[transitive]

b. K'ats-ma i-t'ira.
man-ERG VAL-cry.PST.3SG
'The man cried.'

[unergative]

c. K'ats-i movida.
man-NOM come.PST.3SG
'The man came.'

[unaccusative]

• Summary of Case Alignment in Standard Georgian

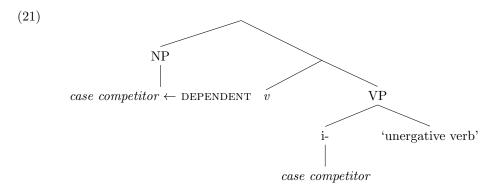
accusative	e alignment in impo	
valence	external argument	internal argument
unaccusative		-i
unergative	-i	
transitive	-i	-S
_	tive alignment in p	
valence	external argument	internal argument
unaccusative		-i
unaccusative unergative	-ma	-i

5.1 A DCT account of case alignment in Standard Georgian

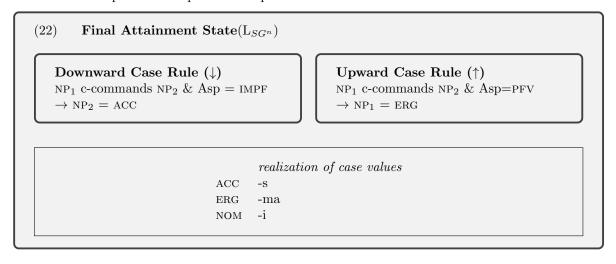
- Georgian has an important difference from Kurmanji where there are only two case forms: OBL and NOM. In Standard Georgian, we have three distinct case forms:
 - -i : NOM as it clearly has the widest distribution in the case system.
 - -s : we take this to realize the \downarrow DEPENDENT CASE in the imperfective
 - (19) St'udent'-i ts'eril-s ts'ers student-NOM letter-ACC write.IMPF.PRS.3SG 'The student is writing a letter.'

 $^{^{7}}$ Setting aside the pronouns, ERG is -ma on consonant-final stems, -m on vowel-final stems whereas NOM: -i on consonant-final stems and $no\ marking$ on vowel-final stems.

- -ma: This is a case formative that appears exclusively on external arguments in the perfective.
 - * Hence, it seems that it does not realize \(\) DEPENDENT CASE because subjects of unergatives also have it.
 - * However, Nash (2017) defends the idea that unergatives in Georgian are concealed transitives occurring with the reflexive/valency prefix i-, as in (20).
 - (20) K'ats-ma i-t'ira.
 man-ERG VAL-cry.PST.3SG
 'The man cried.'
 - * Baker and Bobaljik (2017) adopt this idea and argue that i- is a case competitor on par with object DPs in transitive clauses, making it possible that -ma realizes ↑ DEPENDENT CASE. We will adopt this proposal for consistency.⁸



• Accordingly, it appears that final attainment state for Standard Georgian speakers has two Dependent Case rules each specified to a particular aspect:



5.2 Case alignment in Heritage Georgian

We report data from a heritage variety of Georgian.⁹

• Our language consultant (61, male) is a Turkish-Georgian bilingual from İnegöl, Turkey (4th generation immigrant from Batumi, Georgia). He grew up in a community where Turkish and varieties of heritage Georgian co-exist.

⁸Note that the proposed learning path is compatible with the idea that ERG in Standard Georgian is an inherent case (Woolford 2006) rather than a upward dependent case specified to be assigned under perfective.

⁹Some of the Georgian data that we report here appeared in two talks by one of the authors: Öztürk, Demirok, and Göksel (2011) and Demirok (2019).

• The variety we report differs from Standard Georgian in one crucial aspect: the case marker -ma has been extended to the subjects of unaccusatives. Accordingly, in the perfective aspect, all subjects uniformly bear the formative labelled ergative.

(23) a. Bağv-**ma** xink'al-**i** ç'ama. child-ERG xink'al-NOM eat.PST.3SG 'The child ate the xink'al.'

[transitive]

j. Ğarç-ma i-t'ira.baby-ERG VAL-cry.PST.3SG'The baby cried.'

[unergative]

c. Tsxen-ma mok'da horse-ERG die.PST.3SG 'The horse died.'

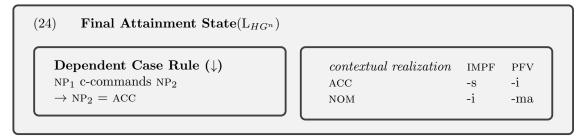
[unaccusative]

• Importantly, in this variety of Georgian, -ma is no longer ergative in any sense. The case alignment in (23) is clearly accusative.

Summary of Case Alignment in Heritage Georgian

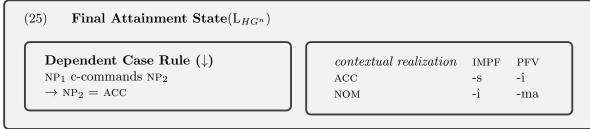
	accusative	alignment in impe	erfective aspect
	valence	external argument	internal argument
•	unaccusative		-i
	unergative	-i	
	transitive	-i	-s
		e alignment in per	
	valence	external argument	internal argument
	unaccusative		-ma
	unergative	-ma	
	transitive	-ma	-i

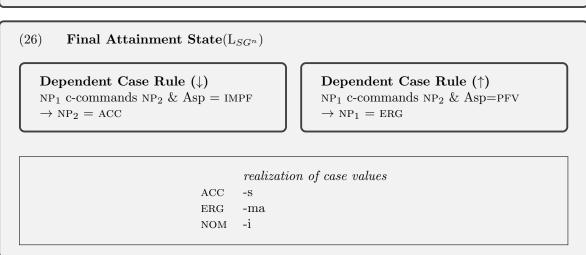
- Notably, in this variety, NOM has two distinct aspect-dependent forms.
 - We hypothesize that heritage Georgian has one case rule only, namely Downward Case Rule \downarrow .
 - This yields a system with two aspect-dependent realizations of ACC and NOM:



5.3 Learning L_{HG^n}

- As in the case of Heritage Kurmanji, we hypothesize that L_{HG^n} is a step in the acquisition trajectory of L_{SG^n} that arose due to *incomplete attainment*.
- We can identify what must have been picked up on the path from (25) to (26):





- What has to happen on the path from L_{HG^n} to L_{SG^n} ?
 - The Upward Case Rule is learnt.
 - Learner settles on a non-contextual realization for NOM.
 - The Asp = IMPF is added to the Downward Case Rule.
- We consider a likely acquisition path that includes these learning steps and finds support from acquisition diaries on Georgian.
- Two crucial notes from the acquisition diaries on (Standard) Georgian (Imedadze and Tuite 1992):
 - The child is aware of the fact that **aspect affects case forms** from the beginning. Not a single over-extension error of using -ma on subjects in the IMPF and -s on objects in the PFV.
 - No error reported for the Downward Case Rule. But Upward Case Rule seems to come later. Initially, -ma seems to be NOM in the PFV!
 - (27) (Imedadze and Tuite, 1999:63)
 - a. Čemi saxl-**ma** ase geindzra my house-ERG thus shake.PST.3SG 'My house shook like this.' (child data. Tina [3;8])
 - b. Čemi saxl-i ase gaindzra my house-Nom thus shake.PST.3SG 'My house shook like this.' (adult form, Standard Georgian)

A possible acquisition path

Step 1: Learn the Downward Rule

 NP_1 c-commands NP_2

$$\rightarrow$$
 NP₂ = ACC.

$contextual\ realization$	IMPF	PFV
ACC	-S	-i
NOM	-i	-ma

Step 2: Learn the Upward Rule

 NP_1 c-commands NP_2 & Asp=PFV $\rightarrow NP_1 = ERG$.

```
contextual realization IMPF PFV
ACC -s -i
non-contextual realization
NOM -i
ERG -ma
```

Step 3: Add Asp in Downward Rule

 NP_1 c-commands NP_2 & Asp=IMPF $\rightarrow NP_2 = ACC$.

$$\rightarrow NP_2 = ACC.$$

NOM -i ACC -s ERG -ma

Step 3 reaches L_{SG^n} .

- \rightarrow consistent with the absence of over-extension across aspects.
- -ma is unattested in IMPF, -s is unattested in PFV.

 \rightarrow predicts -ma on unaccusative subjects! attested in child language

incomplete attainment $\to L_{HG^n}$.

 \rightarrow PLD: -ma is not found on subjects of unaccusatives:

Then, -ma \neq NOM; Upward Rule is a better fit.

At Step 3, the learner adds Asp specification to the Downward Rule, settling on -i being NOM everywhere.

- To sum up, we argue that learners move from L_{HG^n} to L_{SG^n} .¹⁰
 - In case of incomplete attainment, L_{HG^n} emerges. (Learners stuck at Step 1.)
 - In case of complete attainment, the learner must observe from PLD that the -ma is absent on unaccusative subjects
 - * This gives rise to the Upward Rule and sets -ma to be the realization of Upward Case
 - We again speculate that heritage Georgian might emerge due to Turkish being the dominant language causing reduced input.

¹⁰There is a question about the move from Step 2 to Step 3, which is vacuous with respect to the outputs grammar generates. If learning stops at Step 2, learners reach a grammar which generates the same set of strings that L_{SG^n} generates. Whether Standard Georgian speakers ever go through Step 3 is an issue we are not able to settle in the present context. Notably, at Step 2, the grammar has a tripartite ERG-NOM-ACC alignment in PFV, which is an analysis fully consistent with the adult grammar of Standard Georgian.

6 Conclusion

Our Contribution

- 1. The Dependent Case Theory accounts for all the standard and heritage case patterns in Kurmanji and Georgian in contact with Turkish.
- 2. Heritage patterns in Kurmanji and Georgian are instances of **incomplete attainment** of the grammar rules that generate the standard patterns.
- 3. Heritage patterns emerge naturally during the course of monolingual acquisition as predicted by the Dependent Case Theory.
- 4. The role of contact might be reducing the input.

Left open

- 1. Our findings suggest that the Downward Rule is learnt first.
 - Is this due to a universal bias in learning? (\approx unmarkedness of accusativity?)
 - Is it a feature of split ergative systems only?

References

- Atlamaz, Ümit, and Mark Baker. 2018. On partial agreement and oblique case. Syntax 21 (3): 195–237.
- Baker, Mark, and Jonathan David Bobaljik. 2017. On inherent and dependent theories of ergative case. In *The Oxford handbook of ergativity*, ed. Jessica Coon, Diane Massam, and Lisa Demena Travis, 111–134. Oxford University Press.
- Baker, Mark C. 2015. Case: Its Principles and its Parameters. Cambridge University Press.
- Demirok, Ömer. 2019. "Ergative as a default case: Evidence from a Georgian dialect". TALK PRESENTED AT TU+4, NYU, FEB 16-17.
- Dorleijn, Margareet. 1996. The decay of ergativity in Kurmanci. Tilburg University Press.
- Gündoğdu, Songül. 2011. The phrase structure of two dialects of Kurmanji Kurdish: Standard dialect and muş dialect. *Unpublished MA Thesis*). *Boğaziçi University, Turkey*.
- Haig, Geoffrey. 2004. Alignment in Kurdish: a diachronic perspective. Unpublished Habilitationsschrift: Philosophische Fakultät der Christian-Albrechts-Universität zu Kiel.
- Harris, Alice C. 1982. Georgian and the unaccusative hypothesis. Language 58 (2): 290–306.
- Imedadze, Natela, and Kevin Tuite. 1992. The acquisition of Georgian. In *The crosslinguistic study of language acquisition*, ed. Dan Slobin, 39–109. Hillsdale, NJ: Erlbaum.
- Mahalingappa, Laura Jahnavi. 2009. The Acquisition of Split-Ergativity in Kurmanji Kurdish. PhD thesis, The University of Texas at Austin.
- Marantz, Alec. 1991. "Case and Licensing". In *Proceedings of the 8th Eastern States Conference on Linguistics*, ed. Benjamin Westphal and Hee-Rahk Chae, 234–253. Ithaca, NY: CLC Publications.
- Nash, Léa. 1996. "The internal ergative subject hypothesis". In North East Linguistics Society, 26:15. 1.
- Nash, Léa. 2017. The Structural Source of Split Ergativity and Ergative Case in Georgian. In *The Oxford Handbook of Ergativity*, ed. Jessica Coon, Diane Massam, and Lisa Demena Travis. Oxford University Press.
- Öztürk, Balkız, Ömer Demirok, and Aslı Göksel. 2011. "Implications of case and agreement patterns in three Caucasian dialects spoken in Turkey: Pazar Laz, Ardeshani Laz and Inegol (Adjarian) Georgian". Talk presented at Conference on Caucasian languages, Max Plank Institute, Leipzig, May 13-15.
- Thackston, Wheeler M. 2006. Kurmanji Kurdish:-A Reference Grammar with Selected Readings. Renas Media.
- Woolford, Ellen. 2015. Ergativity and transitivity. Linquistic Inquiry 46 (3): 489–531.
- Woolford, Ellen. 2006. Lexical Case and Inherent Case and Argument Structure. *Linguistic Inquiry* 37 (1): 111–130.