

Can insignificant evidence yield a significant result?

sub-grouping Southern Kurdish based on imperfective allomorphs

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Abstract

This chapter traces the development of the imperfective marking system in Southern Kurdish, demarcating as many as seven sub-groups. However, the progressive to imperfective cycle (Deo, 2014) responsible for these developments is semantically motivated. In other words, it is likely to occur (repeatedly) in languages regardless of initial conditions or contact languages. In the Comparative Method, the most prevalent theory in Historical Linguistics, one should only base subgroupings on shared significant innovations. I make the case here that a set of insignificant innovations can be bundled to create a single significant innovation as long as the set of innovations supports a single relative chronology, which is the significant innovation.

1. Introduction

When sociolinguists or dialectologists demarcate dialects, they use isoglosses, “the lines marking the boundaries between two regions which differ with respect to some linguistic feature” (Chambers & Trudgill 1998:89). Hypothetical isoglosses can be drawn on a map differentiating zones with one exponent from another. Isoglosses tend to group together, forming isogloss bundles, “[t]he coincidence of a set of isoglosses, which are a major criterion for defining dialects (Chambers & Trudgill 1998:94). However, the focus on bundles of isoglosses as a criterion for demarcating dialects ignores ideas about which developments are significant or innovative, leaving any interpretation susceptible to superficial similarities. However, this bundling is not dissimilar to what historical linguists do using many shared innovations to establish a particular subgrouping relationship.

In the Neo-Grammarian Comparative Method, it is recognized that the only reliable way to establish the genealogical relationship between languages is by considering shared significant innovations (following Campbell 2013:346, Hock & Joseph 2009:425, etc.). However, scholars disagree about the primacy of morphological or phonological innovations (see Korn 2019, Clackson 2007, etc.). The issue of significance is predicated on the heuristic of Naturalness: some changes are more likely to occur, and, as such, their existence in two related varieties is unremarkable. For instance, losing an *h* sound at the end of a syllable is common cross-linguistically; its occurrence should not be used to propose a particular subgrouping. An example of a morphological change thought of as natural is the recruitment of a locative construction to necessitate an act-in-progress reading, i.e., the progressive aspect. Examples of this include the dialectal English *be* *a'*VERBing < **be* on VERBing (1a) (see Smith 2007). Likewise, similar constructions occur in Gilaki (1b), where the locative *dār* is added to the infinitive to signal an act-in-progress reading; in Japanese (1c), the location noun *tokoro* ‘place’ forms a relative clause with the existential verb *iru* and the gerund to necessitate an act-in-progress reading.

1. a) *Change is a'- comm-in'*
change COP.3SG LOC- come-PCPL
Dialectal English: 'Change is coming.'
- b) *gift-án-dər-am*
take-INF-LOC-1SG
Western Gilaki: 'I am taking' (Stilo 2001)
- c) *haçit-te i-ru tokoro da*
run-GER exist-NPST place COP.NPST
Japanese: 'I am running'

This change is considered natural because it is semantically motivated (see Deo 2015). Following the proposal of Karim (2020; 2021; in review b), a locative was recruited for an act-in-progress reading several times in the history of Kurdish. See Belelli (2022a:259), "A Cross-Dialect Account of Kurdish Past Tense Categories, with special reference to Southern Kurdish," which also proposes the locative to be the etymon of the Southern Kurdish *-ya* Imperfects.

In this paper, I argue that, despite the naturalness of the changes at every stage (e.g., recruitment of a locative for an act-in-progress reading, generalization to the entire imperfective domain, etc.), this development can be used to make claims about the genealogical relationship among Kurdish varieties. The particular developments of the formatives marking the imperfective aspect in Kurdish varieties point to a particular Relative Chronology with respect to other phonological, morphological, and contact-induced developments. Although each of the individual changes is insignificant on its own, the relative chronologies, to the extent that they differ, suggest a particular shared history.

The paper is structured thus. I give an overview of Southern Kurdish in section 2. In section 3, I summarize Karim's (2020; 2021; in review b) account of the development of imperfective marking in Southern Kurdish. In section 4, I give an overview of the position of Southern Kurdish dialects based on Belelli's (2019) analysis of Fattah's (2000) proposal. Finally, I compare and contrast the genealogy implied by the development of the imperfective markers with Fattah's (2000) proposal in section 5.

2. Background on Southern Kurdish

Southern Kurdish refers to a dialect continuum spoken mainly in Iran, with parts in Iraq. The northernmost reaches of the contiguous Southern-Kurdish-speaking region is Qorva in Kordistan Province (Iran), with a Southern Kurdish island to the north in the city of Bijar. The southernmost reaches of Southern Kurdish are the counties of Abdanan and Dehloran in Ilam Province (Iran). The westernmost reaches of Southern Kurdish extend across the border to Khanaqin in the Diyala province (Iraq), and the easternmost edge is in Tuyserkan in Hamadan province (Iran). See Belelli (2019) for more information on the geographic and sociolinguistic background of Southern Kurdish.

Deciding which varieties belong to Southern Kurdish at the periphery can be difficult. For instance, Fattah (2000) includes the varieties spoken in Bisitun, Chihr, Harsin, and Payrawand in his description of Southern Kurdish. These varieties are also known under the designation Laki, often considered a

separate language. In Belelli's (2019) study of Southern Kurdish dialects, she refrains from making a claim about whether Laki should be included in the Southern Kurdish dialect continuum (Belelli 2019:76). Another example of questionable inclusion in Southern Kurdish is the variety spoken in Kerend. Fattah (2000) leaves this variety out of his study of Southern Kurdish, with a notable gap cut into his map of the Southern Kurdish region around Kerend. The variety spoken there has all the phonological, morphological, and lexical marks of Southern Kurdish but with the inherited split-ergative alignment retained. I have chosen to exclude the Kerendi variety from this study only because it is not included by Fattah (2000), and thus, the validity of data from the Kerend variety is inaccessible to scholars who wish to interact with my analysis. Conversely, I include the Laki-Kermanshahi varieties here despite their questionable status because the data necessary for comparison is included in Fattah (2000). Both Fattah (2000) and Belelli (2021) consider these varieties to be transitional between Southern Kurdish and the Laki spoken in Ilam and Lorestan.¹

3. The development of imperfective markers in Southern Kurdish

Southern Kurdish has a present indicative/imperfective marker that variably surfaces as *de-*, *d-*, *e-*, or $\emptyset$. These markers conform in position and function with other regional languages, e.g., the non-Iranian languages Neo-Aramaic *q-/k-* and Armenian *ga-*, and the Iranian languages New Persian *mi-*, Hewrami/Gorani *m-*, etc.² One feature that sets Southern Kurdish apart from Northern and Central Kurdish is the existence of an imperfective suffix *-a*, *-ya*, or *-wa*, which can combine with a prefix forming a circumfix, e.g., *e-STEM-ya*. The etyma of the Kurdish imperfective prefixes, suffixes, or circumfixes proposed by Belelli (2022a) is the locative circumposition (e.g., *de* NP=*da*, *e* NP=*a*, *le* NP=*da*, etc.), the same origin as imperfective markers in the contact languages Neo-Aramaic, Armenian, etc.³

Because the variation between each group aids diachronic reconstruction, it is essential to look at each variety as a separate entity capable of possessing a piece of the puzzle. For this reason, I refer to each variety by the city, town, village, or region where it is spoken or the tribe that speaks it following Fattah (2000).⁴ In the following two sections, I show two perspectives on reconstructing the imperfective markers. In section 3.1, I show how the form **de-STEM-da* is reconstructable based on the dialectal variation of the prefixes and suffixes, and in 3.2, I show the top-down approach, how the individual reflexes came to be.

¹ Belelli (2021) agrees with Fattah (2000) that Laki-Kermanshahi have Southern Kurdish aspects. However, Belelli (2021) conceptualizes them as mixed dialects.

² See (Noorlander & Stilo 2015 and Stilo & Noorlander 2015) for a discussion of convergence on this point and others.

³ See Windfuhr (1989) and Stilo (2007) for alternative etymologies for similar particles in the Central Plateau Dialects and other Iranian languages based on the Persian imperfective. Although, they stop short of definitively connecting these forms with the Kurdish imperfective markers. Note that MacKenzie (1961:223) originally concluded that the imperfective markers in Central Kurdish *de-* and *e-* must have had separate etyma largely because he did not have access to the Southern Kurdish data, which is less ambiguous.

⁴ I have adapted Fattah's (2000) transcriptions to standard Kurdish notation to avoid ambiguity throughout. The names of cities have been quoted in simplified transcriptions to promote the reader's ability to conduct a simple internet search for any given town.

3.1. The bottom-up approach

In Table 1, I show the imperfective markers in Southern Kurdish varieties as described by Fattah (2000:371-378, 395-398) and summarized in (Belelli 2019:253-259).⁵ Most Southern Kurdish varieties with an imperfective suffix in the past tense only show the suffix on stems ending in a high vowel. For those varieties, the imperfective suffix merges with the final vowel *î* or *û*, yielding the suffixes *-ya* or *-w̄a-*, where *w̄* is a labialized palatal glide *corresponding* to the high front vowel *û*. Southern Kurdish varieties with an imperfective suffix on stems ending in consonants, and non-high vowels use the suffix *-ya* with the glide /y/, e.g., (2).

2. *la* *Kirmaşan* *kar* *kird-ya-m*
 in Kermanshah work do.PST-IPFV-1SG.A

'I used to work in Kermanshah.' (Kermanshah, Qasiri Shirin, etc., Fattah 2000:376).

PRS.IPFV	PRS.IPFV.NEG	PST.IPFV	PST.IPFV.NEG
Bijar:			
<i>di-</i>	<i>nî-</i>	<i>di-...(-ya)</i>	<i>nî-...(-ya)</i>
Bilavar, Sahana:			
<i>e-</i>	<i>na-</i>	<i>e-...(-ya)</i>	<i>na-...(-ya)</i>
Kolyai, Qorva (C.D.ÿ.), Bayray:			
<i>=y#e-</i>	<i>na-</i>	<i>= y#e-...(-ya)</i>	<i>na-...(-ya)</i>
Dinavar:			
<i>e-</i>	<i>na-</i>	<i>e-...(-ya)</i>	<i>neye-...(-ya)</i>
Bisitun, Chihr, Harsin, Payrawand:			
<i>=e me-</i>	<i>nime-</i>	<i>=e me-...(-ya)</i>	<i>nime-...(-ya)</i>
Khanaqin:			
<i>∅-</i>	<i>nye-</i>	<i>e-</i>	<i>nee-</i>
Malikshahi:			
<i>(di)∅-</i>	<i>nye-</i>	<i>di-</i>	<i>nye-</i>
Myakhas, Ilam, Mihran, Rika (Sarna), Saleh Abad, Warmizyar, Zurbatiya, Kordali:			
<i>∅-</i>	<i>nye-</i>	<i>di-</i>	<i>nye-</i>
Kalhor (Shahabad), Chamchamal, Harasam, Kermanshah, Qasiri Shirin, Sanjabi, Xalesa:			
<i>∅-</i>	<i>nye-</i>	<i>∅-...-ya</i>	<i>nye-...-ya</i>
Arkvaz, Dushaykh, Iwan, Kaprat, Mandili, Sarpol, Sherwan:			
<i>∅-</i>	<i>nye-</i>	= PST	

Table 1: The formatives of the imperfective markers in Southern Kurdish (Fattah 2000)

The present tense is generally understood as conveying imperfective aspect by default. As such, Kurdish (and Iranian in general) feature a present-tense stem where the main distinction is modal (indicative vs subjunctive). In contrast, the past-tense stem distinguishes aspect and mood. This has led some scholars

⁵ Fattah (2000) lists each of the formatives and the variants that exist in Southern Kurdish, followed by the areas where each of those variants occurs. This strategy serves to obscure the coherency of individual language systems. For instance, Fattah (2000) lists Dinavar as a variety that shows the negative imperfective marker as *neye-*. He, additionally, lists (part of) Dinavar in the section with the marker *na-*, along with Bilavar and Sahana. In Table 1, I restrict each variety to the group representing the majority of speakers.

to define the present-tense imperfective marker as an indicative marker despite their unity in most varieties (e.g., Mahmoudveysi et al. 2012, Khan 2018, etc.).

There is more variety among the imperfective prefixes than the suffixes in Southern Kurdish. In the affirmative, the prefixes variably appear as *d(i)-*, *e-*, *Ø-*, or the preposed enclitics *=y* or *=e*. Eleven Southern Kurdish varieties represented in Fattah (2000) show the marker *e-* as the prefix *e-* or the preposed enclitic *=e*.⁶ Ten varieties show the *d* marker with an epenthetic vowel *i*, separating it from consonant initial roots. Three varieties show the preposed enclitic *=y*, which attaches to any vowel-final preverbal matter, e.g., (3).⁷

3. *xorma=y xwe-m*

date=IPFV eat.PRS-1SG

'I eat dates' (Bayray, Fattah 2000:372)

The prefix *e-* occurs in all three varieties with the preposed enclitic *=y* in lieu of preverbal matter ending in *e* or *a*, e.g., (4).

4. *e-ç-im*

IPFV-go.PRS-1SG

'I am going away' (Qorva, Bayray, Kolyai, Fattah 2000:372)

Following Fattah (2000), I consider both the preposed enclitic and the prefix as the imperfective marker. However, I recognize that these forms have yet to be independently confirmed, i.e., by scholars other than Fattah (2000). In Tables 2, 3, and 4, I present the sound correspondences among the imperfective markers in 2; I show only the past imperfective formatives for varieties with different markers in the past and present, and I have listed the varieties in the same order presented in Table 1. If a given variety has a consonantal reflex of the imperfective marker, they are presented as correspondences whether *t-*, *d-*, *y-*, or *=y*. If there is a vocalic outcome, those are included as a separate correspondence set. If there is a marker with both consonantal and vocalic reflexes, i.e., *de-*, there is a marker in both sets. From this comparison, it looks as if the *d*-form imperfective markers and the *e*-forms do not have any overlap. In

⁶ According to Belelli (2022b:fn.23), Windfuhr (1989; 2009:259) suggests that "the various imperfective markers may all ultimately be related to a single OIr. adverbial complex **hama-aiva(-da)* meaning '(at the) same time, for all the time/duration,' or parts thereof." However, this hypothesis is built upon two unproven foundational assumptions: (1) that these languages went through a development parallel to New Persian at an early point in their development while New Persian was still in Central Asia (see the forthcoming book by Kevin van Bladel). (2) such a form as **hama-aiva(-da)* actually existed in the history of these languages. Windfuhr's (2009) theory can account for languages where the imperfective markers are ambifixial as the adverbial **hama-aiva(-da)* could, in principle, occur before or after the verb. However, it cannot explain the circumfixial realization in Southern Kurdish and Laki.

⁷ It was pointed out to me by Sara Belelli that Fattah's (2000) examples of the *=y* clitic are ambiguous. According to her, *xorma=y* in (3) could also be interpreted as having an indefinite suffix. In correspondence with Masoud Mohammadirad, I could not confirm the existence of this particle. I include Fattah's (2000) analysis here for completeness. If he is mistaken, it does not change the outcome of this analysis.

contrast, the *y* formative does occur with *e*. However, this division is less clear when examining internal variation.

One issue is that the imperfective marker undergoes certain changes when attaching to an *h*-initial stem. The most common outcome of the combination of the imperfective prefix and the *h* of *h*-initial stems is the alveolar outcome, usually with devoicing to *t*. Examples include from the root *hat-* ‘to come,’

tya⁻⁸, *té*⁻⁹, *tya*⁻¹⁰, *d(i)ya*⁻¹¹, and *ya*⁻¹² (Fattah 2000:360). A very different picture arises when these variants are added to the sound correspondences. In Table 3, I show the sound correspondences augmented by the form that occurs with *h*-initial stems. Here, it is clear that there is an alveolar element in all varieties except for Bayray, Sherwan (south), and the four Laki-Kermanshahi varieties Harsin, Bisitun, Chihr, and Payrawand. In Bayray and Sherwan (south), the consonantal reflex of the imperfective marker is *y*, also available as a preposed enclitic in Qorva, Kolyai and Bayray. In the Laki varieties, the imperfective prefix surfaces as the preposed enclitic =*e*, which is always separated from the verb by a third imperfective marker, *ma-*, e.g., (5).

5. (=*e*) *me-res-ya-m*
 (=IPFV) IPFV-arrive.PST-IPFV-1SG
 ‘I arrived’ (Harsin, Fattah 2000:378)

Using this bottom-up approach, one might reconstruct a marker with an alveolar element *d* or *t*, a palatal element *y*, and a possible vocalic element *e*, i.e., **dy(e)-* or **ty(e)-*. However, some independently attested facts of Southern Kurdish allow us to reason a more nuanced reconstruction:

(1) Many *d* forms were preserved only when attached to *h*-initial stems. Assuming some sort of assimilation that preserved the alveolar exponent of the imperfective marker, the voiceless variant *t* is a natural change and a likely innovation. This makes the **dy(e)-* reconstruction a better possible solution.

(2) The so-called Zagros *d* sound change. According to (McCarus 2009:597), “As a widespread regional feature, termed the “Zagros *d*” (Windfuhr 1989: 254), postvocalic *d* is softened to glide-like [-*y*-], or -*w*-, and contracts with adjacent high vowels: [*e-de-m*] ~ [*e-ye-m*] ‘I give’; [*nadir*] ~ [*nayir*] ‘Nadir’ (masc. proper name); [*bed*] ~ [*bey*] ‘bad’; *xwa* ~ *xuwa* ‘God’ [< **xuda*].” This sound change suggests that a word beginning with the *d*-initial prefix would become glide-initial when preceded by a vowel final word. This naturally yields the forms observed in Kolyai, Qorva, and Bayray with the preposed enclitic =*y* alongside the regular *e-* prefix. The question then is what motivates the forms with both alveolar and palatal components, i.e., *ty*.

⁸ Kermanshah, Qasiri Shirin, Sanjabi, Xalesa, Chamchamal, part of Dinavar, Sarpol, Khanaqin, countryside of Khanaqin, part of the Kalhor, Iwan, Sherwan south, and as an additional form in some of Bayray

⁹ Qorva, Kolyai, Bilavar, Sahana, most of Dinavar, the majority Kalhor and of Sherwan (except south), Harasam, part of the Sanjabi, and Chamchamal

¹⁰ Much of Mandili and its villages, Kaprat, Dushaykh, Warmawa, partly from the Sanjabi, and Chamchamal

¹¹ Ilam, Myakhas, Malikshahi, Arkvaz, Mihran, Saleh Abad, Rika (Sarna), partly Kordali, Zurbatiya, and Bijar

¹² Bayray, secondarily Sherwan south (Züri) of Baghdad, marginally Qorva and sometimes around Bijar.

Bij.	Bil.	Sah.	Kol.	Qor.	Bay.	Din.	Bis.	Cih.	Har.	Pây.	Xân.	Mal.	Mya.	Ilam	Mih.	Rik.	SÂ	War.	Zur.	Kor.	Kal.	Čam.	Har.	Kir.	Qš	Sanj.	Xâl.	Ark.	Dš.	Iwan	Kap.	Man.	Sar.	Šer.
d	Ø	Ø	y	y	y	Ø	Ø	Ø	Ø	Ø	Ø	d	d	d	d	d	d	d	d	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø
Ø	e	e	e	e	e	e	e	e	e	e	e	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø

Table 2: Sound correspondences by most common imperfective prefix allomorphs.

Bij.	Bil.	Sah.	Kol.	Qor.	Bay.	Din.	Bis.	Cih.	Har.	Pây.	Xân.	Mal.	Mya.	Ilam.	Mih.	Rik.	SÂ.	War.	Zur.	Kor.	Kal.	Čam.	Har.	Kir.	Qš.	Sanj.	Xâl.	Ark.	Dš.	Iwan.	Kap.	Man.	Sar.	Šer.
d/dy	t	t	ty	ty	y	t	Ø	Ø	Ø	Ø	ty	d/dy	d/dy	d/dy	d/dy	d/dy	d/dy	d/ty	d/dy	d/dy	t	ty	ty	ty	ty	ty	ty	dy	ty	ty	ty	ty	ty	y
Ø	e	e	e	e	e	e	e	e	e	e	e	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø

Table 3: Sound correspondences Table 2 with imperfective prefix allomorphs on /h/-initial roots.

Bij.	Bil.	Sah.	Kol.	Qor.	Bay.	Din.	Bis.	Cih.	Har.	Pây.	Xân.	Mal.	Mya.	Ilam.	Mih.	Rik.	SÂ.	War.	Zur.	Kor.	Kal.	Čam.	Har.	Kir.	Qš.	Sanj.	Xâl.	Ark.	Dš.	Iwan.	Kap.	Man.	Sar.	Šer.
d/dy	t	t	ty	ty	y	t	Ø	Ø	Ø	Ø	ty/y	d/dy/y	d/dy/y	d/dy/y	d/dy/y	d/dy/y	d/dy/y	d/ty/y	d/dy/y	d/dy/y	ty	ty/y	ty/y	ty/y	ty/y	ty/y	ty/y	dy/y	ty/y	ty/y	ty/y	ty/y	ty/y	y
Ø	e	e	e	e	e	e	e	e	e	e	e	e	e	e	e	e	e	e	e	e	e	e	e	e	e	e	e	e	e	e	e	e	e	e

Table 4: Sound correspondences Table 3 with negative allomorphs.

One possible solution is that both the alveolar element *d* or *t* and the palatal element *y* are independent reflexes of the alveolar formative. First, the original alveolar element univerbates with the *h*-initial stem, forming a new imperfective stem, i.e., **de-* ‘come.’ Then the regular imperfective marker is added to the imperfective stem, which is no longer parsable into its constituent parts, like the English word *child-r-en*, which diachronically speaking has two plural formatives *-(e)r* and *-en*: **de-he* > **de* > **d(i)-de* > *dye*. This solution seems complicated. However, it is independently attested in some varieties that have lost the alveolar exponent in most environments, e.g., (6), etc. Due to these many examples of stem reanalysis and the Zagros *d* sound change, Karim (2020; 2021; in review b) reconstructs the prefix **d(e)-*.¹³

6. a) *e-t-ê-m* or *e-tê-m*
 IPFV-IPFV-come.PRS-1SG ~ IPFV-come.PRS.IPFV-1SG
 ‘I am coming’ (Qorva, Fattah 2000:542)
- b) *der=nye-t-y-e-m* or *der=nye-tye-m*
 PV=NEG.IPFV-IPFV-IPFV-come.PRS-1SG ~ PV=NEG.IPFV-come.PRS.IPFV-1SG
 ‘I’m going out’ (Qasri Shirin, Fattah 2000:569)
- c) *er=e-t-y-e-m* or *der=e-tye-m*
 PV=IPFV-IPFV-IPFV-come.PRS-1SG ~ PV=IPFV-come.PRS.IPFV-1SG
 ‘I’m going out’ (Bayray, Fattah 2000:570)
- d) *e-t-y-er-im* or *e-tyer-im*
 IPFV-IPFV-IPFV-bring.PRS-1SG ~ IPFV-bring.PRS.IPFV-1SG
 ‘I am bringing’ (Sherwan South, Fattah 2000:546)

The last aspect of the prefix to consider is whether or not the vowel **e* should be reconstructed. There are three reasons in favor of the reconstruction **de*: (1) naturalness; It is more likely that something was lost than being inserted. Note that the epenthetic vowel typically used to break up illegal consonant clusters in Southern Kurdish is /i/. (2) there is a phonological explanation for the vowelless variant, e.g., the pretonic reduction of the vowel *e* to *i*. (3) The form of the negation marker in the context of imperfective occurs as the unimorphated forms *nye-* < **ni-*de-*, *neye-* < **ne-*de-*, and *na-* < **ne-*de-*; see section 3.2.4 (also proposed by Belelli 2022a:257). I have updated the sound correspondence given the preservation of the *e* formative as part of the negative imperfective marker in Table 4.

The imperfective prefix can be reconstructed as **de-*. However, the suffixes *-a*, *-ya*, and *-wā* cannot be directly from **-ya*. Instead, from what we know of the Zagros *d* sound change, the suffixal element could be from the postvocalic outcome of an original **-da* (also proposed by Belelli 2022b). This reconstruction makes some sense given the varieties that lost the suffix except when attaching to a root ending in a high vowel. In these cases, the Zagros *d* sound change causes the *d* of the suffix to merge with the stem

¹³ Note that it is now recognized that Zagros *d* is the likely source of the many of the unimorphated prefixes such as the negative *nye-* from **ni-de-* (Belelli 2022a:257) .

vowel, e.g., *bû* + **da* > *bwā* [be.PST.IPFV, *dî* + **da* > *dya* [see.PST.IPFV]. Given this development, a better reconstruction for the imperfective marker is the circumfix **de-V-da*.

3.2. The top-down approach

Once the imperfective formatives are reconstructed, a top-down approach is warranted. The question is, what are the possible etyma for this construction? In Kurdish, adpositions occur as prepositions, postpositions, and, combined, as circumpositions. The locative circumposition *de* NP=*da* has been preserved in some Northern and Central Kurdish varieties, e.g., *de jûrê da* ‘in the room’ (Mukrî, Öpengin 2016:104), with the reduced vowel *di vî gundî da* ‘in this village’ (Sheran, Matras et al. 2016), and without the prefix *gûnd da* ‘in the village’ (Basselhaya, Matras et al. 2016). In Southern Kurdish, the locative preposition surfaces as *le*, *we*, *de*, *el*, and *e*. Note that the reflexes of the imperfective marker are a proper subset of the locative prepositions. The reflexes of the locative suffix in Southern Kurdish are =*a*, =*wa*, etc. (Fattah 2000: 629-632). Again, the reflexes of the imperfective suffix correspond to the forms of the locative postposition.¹⁴

The recruitment of a locative to mark the progressive aspect is one of several well-attested sources for the progressive (see Bybee, Perkins, & Pagliuca 1994), and the progressive-to-imperfective shift is also a well-understood phenomenon. According to Deo (2015), this shift is part of a cyclic diachronic pattern with four stages:

- 1) **zero-prog state**: there is only one marker throughout the imperfective domain;
- 2) **emergent-prog state**: progressive marking is grammaticalized but is optional;
- 3) **categorical-prog**: progressive and imperfective marking have clearly demarcated sub-domains;
- 4) **generalized-prog**: a return to the zero-prog state with the progressive marker acting as the only imperfective form.

This cycle has occurred in all the Southern Kurdish varieties and is now repeating, except notably in the Malikshay variety. Where the prefix formative still distinguishes a difference between progressive and the rest of the imperfective domain.

Here, I summarize the changes proposed in Karim (2020; 2021; in review b).

3.2.1. Locative recruitment

The locative circumposition **de* NP **da* (still attested in other varieties) is recruited in combination with a non-finite verbal form for an emergent progressive. This is used to specify an act-in-progress reading but is not mandatory. The non-finite form is the inherited Past Participle¹⁵, which eventually becomes the past-tense stem. See (7), which uses the verb ‘to rain’ as an example.

7. *barî-* ‘rained’ > **de-barî-da* COP ‘be raining (and its duration is particularly salient)’

Two additional points about this stage are essential to this account: (1) the PP was the non-finite form recruited for the emergent progressive construction. This is true in all varieties. As such, this form must

¹⁴ Note that there are superficially similar verbal affixes like Laki-Kermanshahi *a* and Southern Kurdish =*ew*(*e/a*), =*wa*, and =*ow*, which have known non-locative origins; see Jügel (2013) and Beilelli (2022b: 63-64).

¹⁵ The past participle is often referred to in the literature as the “Past Passive Participle” although it is not always passive and does not always have past reference. For more on its status in regard to tense and aspect, see Jamison (1990), Drinka (2007), etc.

have been recruited before the reanalysis of the verbal adjective/PP as the past-tense stem of this stem and the emergence of the innovative infinitive, e.g., *barîn*, which is recruited in the modern emergent progressive constructions. (2) At this stage, the copula would be responsible for encoding tense.

3.2.2. Categorical progressive

Progressive construction becomes mandatory when there is an act in progress (Deo 2015). This change (8) is shared by all Kurdish varieties.

8. *de-barî-da COP 'be raining (and its duration is particularly salient)' > *de-barî-da COP 'be raining'

Note that this is an integral part of the progressive-to-imperfective cycle. Each variety of Kurdish has passed through this stage.

3.2.3. Aoristic drift

In its early history, Kurdish and other Indo-Iranian languages developed a past-tense stem from a participle through a process sometimes referred to as "Aoristic Drift" based on Vincent (1982), Squartini & Bertinetto (2000). Drinka's (2017) concise definition of aoristic drift, based on Squartini & Bertinetto (2000), is "a universal tendency through which perfect structures take on preterital or aoristic (perfective past) value increasingly over time." This is a common change that occurred in all Iranian and Indic languages at different times in their development. The participle construction was used to mark the perfect tense. Then, it was generalized to a perfective past. Karim (2020; 2021; in review b) adds to this development by proposing that the progressive, built on the same stem, becomes relegated to the past tense. See (9).

9. *de-barî-da COP 'be raining' / *barî COP 'has rained' > *de-barî-da COP 'was raining' / *barî COP 'rained'

There are two notable outcomes of this change: (1) The fact that there was no longer a way to express the present progressive, paired with the reanalysis of the formerly periphrastic construction, provided the impetus for the extension of these now verbal formatives to the present tense stem. (2) The PP must have become the past stem before the univerbation of the imperfective suffix and the stem, as there is no independent motivation for a progressive form to be reinterpreted as a past form.

3.2.4. Zagros *d*

Postvocalic *d* becomes a glide following a vowel. This change fuses the progressive suffix with the stem, as in (10). Note that Zagros *d* is a sound change shared by all Kurdish varieties. In the northernmost varieties, the original *d* is retained at all morpheme boundaries where the original formative is retrievable. In other words, postvocalic sandhi forms are leveled away, e.g., Kurmancî *didem* 'I give' < *dedem but *bû-* 'was' < *bûd-. This can be seen as a historical change that is not part of the active phonology in Northern Kurdish. However, it is active in Southern Kurdish, where borrowed words can also follow the rule, e.g., SK *beyda* (elsewhere *beya* or *beydad*).

As a result of the phonological reduction in (10) and the grammaticalization of (9), these are now finite verbal forms, likely with the copula support fused to the stem.

10. *de-barî-da > *de-barya

prog-rain.pst-prog.3sg > prog-rain.pst.prog.3sg

`was raining'

3.2.5. Formatives extended to the present tense

The prefix **de-*, the remaining progressive marker, was extended to the present tense stem to mark the present-tense acts in progress (11). Note that at this point, the prefix *de-* is part of the verbal system and attaches to a finite verb form.

11. **de-barya* `was raining' / \**barê* `rains' > **de-barya* `was raining' / \**de-barê* `is raining' / **barê* `rains'

Note that the latter system is observed in Malikshahi, albeit with the reduced prefix *d-* and the loss of the suffixal element across the board.

3.2.6. Pretonic reduction

There is a shift where the vowel *e* is reduced to *(i)* when it is the unstressed nucleus of a word-initial syllable. This regional feature affects all of Southern Kurdish, most of the Gorani languages of the region, and Laki. This change did not take place in Central Kurdish. However, it did occur in Northern Kurdish, perhaps independently. An example from the nominal system is the word *imro* 'today,' cf. the Central Kurdish *emro* 'idem.' This change transformed the indicative prefix in Southern Kurdish from *de-* to *d(i)-*. This shift allowed the unimorphated stems of 'come' and 'bring' to become *te-* and *ter-* from an original **dhe-* and **dher-* with voicing assimilation.

Another consequence of this shift is that there were two imperfective allomorphs *d(i)-* in the affirmative and *de-* in the negative, where it was preceded by the stressed negation marker *ni-*. The latter form **ni-de* surfaces as *nye*, following the Zagros *d* sound change.

3.2.7. Leveling allomorphs of the imperfective

The point at which many Kurdish varieties begin to differ is the allomorphs of the imperfective. At the heart of this difference is the realization of the imperfective marker after vowels. This is particularly salient after the inherited negation marker *ne-*, which occurs in all varieties when attached to bear verb stems, i.e., the present subjunctive and the perfective past. Additionally, many Southern Kurdish varieties spoken in proximity to the Gorani varieties have a reduced form of the negation marker **ni*¹⁶, which occurs only before the imperfective prefix, e.g., (12).

12. a) *qsê ni-me-ker-u*
talk NEG-IPFV-do.PRS-1SG
`I am talking' (Paweyane, Gorani)
- b) *qsê=m ne-kerd*
talk=1SG.A NEG-do.PST

¹⁶ It was pointed out to me by Sara Belelli that "the reduction of an unstressed /a/ [(/e/ in my orthography)] bordering a stressed syllable is a very common phenomenon throughout the area." This explains the reduction to *ni-* in Laki and Gorani before the stressed imperfective prefix *me-*. The Kurdish prefixes are not stressed. As such, there is a likelihood of contact being the reason for the adoption of this variant.

`I talked' (Paweyane, Gorani)

Another aspect of the Gorani verbal system of note is that the imperfective prefix *me-* and, by extension, the negation marker that precedes only it do not occur in the past tense. The imperfective past has its own stem, e.g., (13).

13. *qsê* *ne-kerên-ê*
 talk NEG-do.PST.IPFV-1SG

`I was talking' (Paweyane, Gorani)

This fact is particularly salient in the variety spoken in Khanaqin; see below.

In Bijar, the imperfective prefix is *d(i)-* with pretonic reduction (Section 3.2.6)-. Bijar uses the negative marker **ni-*, which combines with the *d(i)-* prefix, yielding *nî-* the expected result given Zagros *d* (*nî- < *niy- < *ni-d-*).

In Dinavar, Bilavar, Sahana, Kolyai, Qorwe, and Bayray, the prefix **de-* likely occurred as **di-* utterance-initially or after a consonant. In contrast, it surfaced as **y-* in the postvocalic position and as **ye*, following the negative marker *ne*.¹⁷ Dinavar, Bilavar, and Sahana show the variant *e-* across the board. The inherited negation marker *ne-*, which occurs in all varieties, merged with the original prefix **de-*, yielding *ne-ye-*, which is still heard in the areas around Qorva and Dinavar, reflecting how this sequence contracted in the different varieties. This has been replaced by the reduced form *na-* through regularly observed changes in most varieties (the sound change **eye > a* was not shared by all varieties).

In Bisitun, Chihr, Harsin, and Payrawand, the Gorani-like imperfective prefix *me-* and negation marker *ni-* may have been borrowed in addition to the already existing imperfective prefix *e-*, which was displaced by the borrowed formatives becoming a preposed enclitic; see Table 1. However, it is more likely that *ni-*, in the Laki-Kermanshahi varieties, represents a regular reduction of *e* to (*i*) preceding a stressed syllable, i.e., *e* → *i*_(C)V.

In Khanaqin, Malikshay, Myakhas, Ilam, Mihran, Rika (Sarna), Saleh Abad, Warmizyar, Zurbatiya, Kordali, Kalhor (Shahabad), Chamchamal, Harasam, Kermanshah, Qasiri Shirin, Sanjabi, Xalesa, Arkvaz, Dushaykh, Iwan, Kaprat, Mandili, Sarpol, and Sherwan, the Gorani-like imperfective negation marker *ni-* was borrowed, unimorphating with the inherited imperfective marker **de*, yielding *nye-*, the expected outcome given Zagros *d* (independently proposed by Belelli 2022a:257). Once the imperfective marker and the negative marker unimorphated, it was no longer clear that there was a separate imperfective marker from the negative imperfective *nye-* [NEG.IPFV-].

The resulting system had a negative imperfective marker with cumulative exponence, i.e., **ni-de-barê* [NEG-IPFV-rain.PRS.3SG] became *nye-∅-barê* [NEG.IPFV-IPFV-rain.PRS.3SG]. In the affirmative, the indicative marker **d(i)-* featured pretonic vowel reduction, i.e., **d-barê* [IPFV-rain.PRS.3SG], eventually becoming the

¹⁷ Assuming Fattah's (2000) theory about the imperfective proposed enclitic =y is correct, in the three varieties Kolyai, Qorva, and Bayray, the result was the preposed enclitic =y attached to a vowel-final word and the leveled prefix *e-* in all other positions.

form Ø-barê [IPFV-rain.PRS.3SG]. This parallels the analogical developments in varieties with the inherited negation marker *ne. In other words, *ne-de > ne-(y)e analogically led to e- becoming the new imperfective marker just as *ni-de > nye-Ø- led to Ø- becoming the new imperfective marker Ø-barê [IPFV-rain.PRS.3SG]. However, there is a regional parallel in the Hewramî (Gorani) varieties spoken in the same area as these Southern Kurdish varieties. Just like Southern Kurdish, Hewramî underwent pretonic reduction, leading to one imperfective marker in the affirmative *m(i)-* and another in the negative *nmé-* (Hewramî: Bizlana). An additional sound change led to the reduction of word-initial consonant clusters changing *m(i)-* to Ø- in most environments (and *nmé-* to *mé-* as well). Note the parallel in (14).

14. Southern Kurdish: *de-/nide > *d-/nye > Ø-/nye

Hewramî: *me-/níme- > *m-/nmé- > Ø-/mé-

Based on the parallel phonological developments in Hewramî and Southern Kurdish, it is likely that just as Gorani influence caused the *ni-* marker to replace the inherited *ne-, these varieties underwent parallel phonological developments. More data from the rest of the Southern Kurdish systems of these areas is necessary to understand if this is Sound Change in the regular Neogrammarian sense or analogy to the Hewramî (Gorani) model, i.e., pattern borrowing (see Karim & Mohammadirad, in review).

The variety of Khanaqin stands out from the rest of this group with the negative past imperfective *nee-*, showing the result of the negative marker *ne-* and the imperfective marker *de*.¹⁸ This is a different negation marker in the present tense *ni- from the one in the past *ne-*. There is no internally motivated reason for this except that the Gorani-like negation marker *ni-* from which this was likely borrowed does not occur in the past tense. The varieties of Malikshay, Myakhas, Ilam, Mihran, Rika (Sarna), Saleh Abad, Warmizyar, Zurbatiya, and Kordali have kept the independent/post-consonantal variant of the prefix *d(i)-* with the pretonic vowel reduction as seen in Bijar in affirmative contexts but retains the reflex of the original *de in negative contexts.

Based on the different ways the leveling took place, we can divide Southern Kurdish into two major categories: (1) one where the languages have the reflex of the Gorani-like negation marker, and (2) another without. Based on subsequent developments, we can further subdivide those groups into between 6 and 8 subgroups. See section 5 for a complete analysis.

3.2.8. Generalized progressive

The final stage salient for this discussion is the generalization of the progressive marker to an imperfective marker. This is a common shift that is semantically motivated, as described by Deo (2015). As such, it could have happened at any stage. However, evidence from Malikshay seems to support a late shift. In Malikshay, the negative variant is extended to the affirmative domain, leading to zero marking, and the negative imperfective marker *nye-* covers the whole imperfective domain. However, the independent/post-consonantal variant of the prefix *d(i)-* remains a progressive aspect marker.

As a tangent, it is worth noting that most Kurdish varieties have now begun to reenter the emergent progressive phase. They have recruited many different constructions. Some have even recruited the

¹⁸ See forthcoming work by Sara Belelli which poses an alternative hypothesis about the forms in Khanaqin. She explores contact with Central Kurdish which has *ne-(?)e-* as a possible source for the past-tense negative imperfective *ne-e-*.

current locative constructions with the non-finite infinitive, e.g., (15). See Belelli (2022a:265) for a discussion of emergent progressive periphrases in Southern Kurdish.

15. *le* *nan-xward-in=a=m*

loc bread-eat-inf=loc=cop.1sg

‘I am eating [lit. I am in bread-eating]’ (Suleymanî, Central Kurdish)

4. Fattah’s (2000) account of Southern Kurdish dialectology

Fattah (2000) has proposed a genealogical affiliation of Southern Kurdish dialects with seven distinct subbranches/dialect groups: (1) Bijari (BIJ), (2) Kolyay (KOL), (3) Laki-Kermanshahi (L-KER), (4) Kalhori-Sanjabi-Zangane (KSZ), (5) Malekshahi (MAL), (6) Badre’i (BAD), and (7) Kordali (KOR) (Fattah 2000).

Much of the following discussion is based on Belelli’s (2019) analysis of Fattah’s (2000) proposed subgroups.

Belelli (2019) argues that Fattah’s (2000) classification of Southern Kurdish dialects is probably more geographical than anything else; see Fattah’s (2000) map Figure 1. Furthermore, (Belelli 2019:81) points out that these geographically defined groups are likely grouped together because they represent varieties associated with specific ethnocultural groups. Note that Fattah (2000) proposes these groups without necessarily supporting the subdivisions based on significant shared innovations.

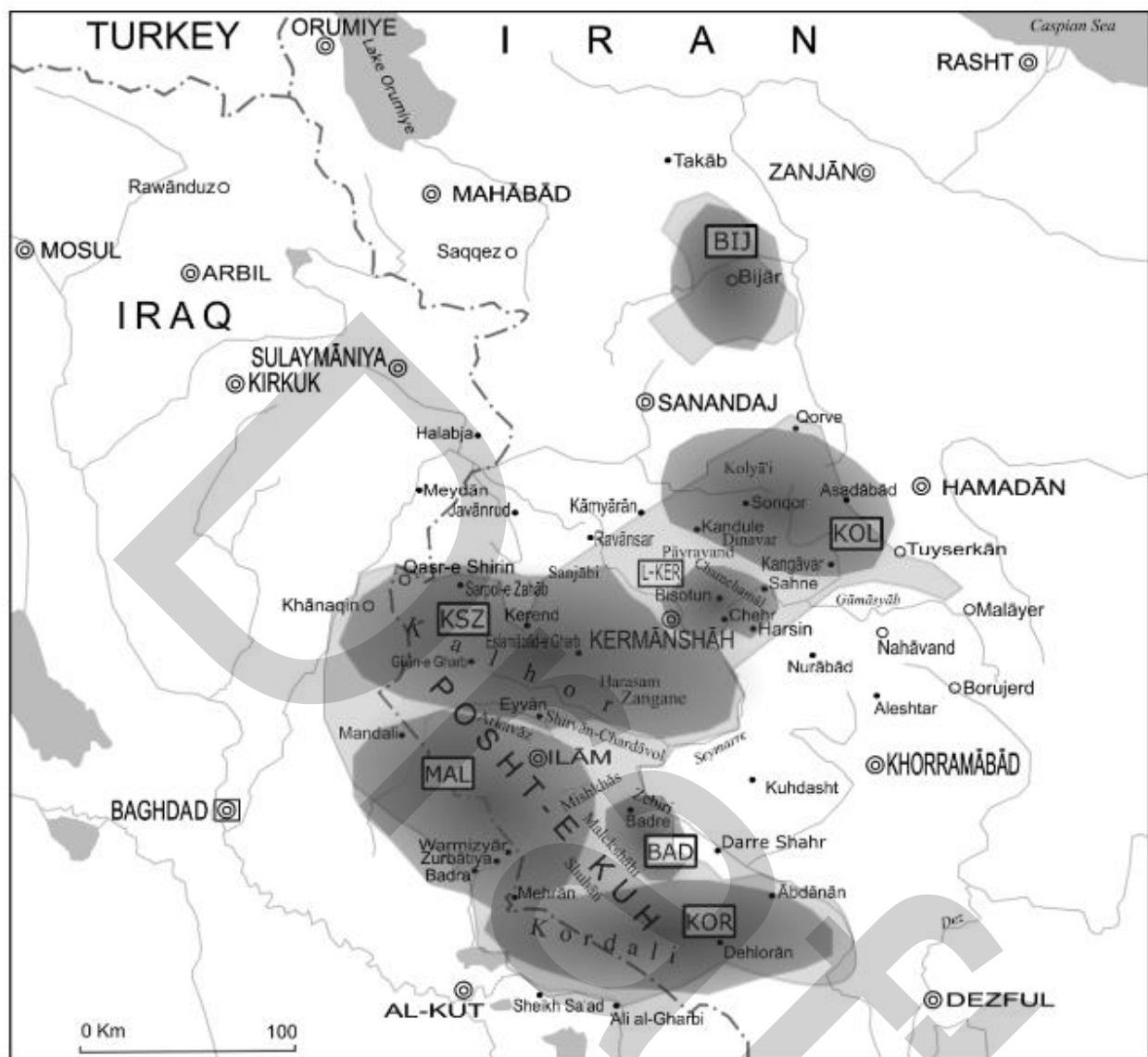


Figure 1: Map of Southern Kurdish Varieties

(superimposing SK subgroups Belelli's 2019:80 on the spread of SK Fattah 2000:iv)

Belelli (2019) provides some specific traits that could, in principle, be used as the basis for the demarcation of the Southern Kurdish dialects. She did so without the expressed goal of proposing the correct dialect subgroupings, which will be the topic of further research. These traits are divided into the phonetic/phonological, the morphosyntactic, and the lexical. Her account of the lexical divergences focuses on the existence of borrowings from nearby languages, e.g., words from Laki proper in L-KER and Arabic borrowings in the varieties of Iraq, which belong to three of Fattah's (2000) subgroups (KSZ, MAL, and KOR). I do not address these here as it is generally understood that borrowings obscure the picture of genealogical relationships. In other words, words not present in the protolanguage cannot tell us anything about that protolanguage.

Here, I present some highlights of Belelli's (2019) isoglosses. Note that she evaluates them in the context of Fattah's (2000) subgroups and not individual varieties. As such, it is impossible to glean precisely which varieties group, according to Belelli's (2019) account alone.

- **w → v:** According to Belelli (2019), the shift from /w/ to /v/ is a feature of the L-KER group, affecting some of KOL. Based on Fattah (2000: 158-159), this is confined to the Laki group except for "environs de Sahana." The inclusion of Sahana in the Laki-Kermanshahi group continually comes up throughout Fattah (2000), implying that there are Laki-Kermanshahi speakers in the region of Sahana, e.g., geographically but not linguistically part of Kolyai.
- **ɫ → l:** Belelli (2019) describes the loss of the dark ɫ in Kermanshah City (L-KER) and Mandali (MAL).
- **l → ʎ:** The palatalization of /l/ occurs in Laki and some of the rest of L-KER.

Belelli (2019) includes several examples of the active parts of the Zagros *d* sound change, proving that it is more complex than McCarus (2009) described.¹⁹

- **d → ʃ:** The palatal stop ʃ is the postvocalic reflex of /d/ in Qorva (KOL) and Bijar (BIJ), separate groups according to Fattah (2000).
- **d → Ø/V_:** There is a complete loss of postvocalic/d/ in Harsin but not the rest of L-KER.
- **d → y/V_:** Postvocalic/d/ becomes a glide in KOL, the result expected as a stage, at least historically, in all Kurdish varieties.
- **ü → i:** Many Southern Kurdish varieties have the high-front-round vowel [ü] as the reflex of the inherited high-back-round vowel /u/, e.g., *mü`fur`* (Qasri Shirin, Fattah 2000:164). However, a subgroup of southern Kurdish, described by Belelli (2019) as MAL and KOR, have [i], e.g., *mî`fur`* (Ilam). These include at least Ilam, Mihran, Kordali, Mandali, Warmizyar, and Zurbatiya (following Fattah 2000: 164-166).
- **a → o/_N:** The raising of /a/ before nasals occurs in the KOR group.

Belelli (2019) describes several Morphological changes as potential defining isoglosses. The nominal system has two definite suffixes: the *-eke/ege/eğe* variant and the *-e*. The former is favored in KOL, while the latter is favored in MAL. The varieties in between form a continuum. There is a typical Southern Kurdish plural marker from a collective noun *gal* with several variants that differ in phonology, not etymology. These occur regularly everywhere but Bijar, which uses the inherited *-an* suffix. It should also be noted that the collective plural suffix occurs in languages across the Iranian world (for information on the spread of this feature, see Karim in review a). Despite the choice of the plural marker, BIJ, KOL, and KSZ varieties use the inherited definite-plural suffix *-egan/-eğan/-ekan*, while the L-KER, BAD, MAL, and KOR varieties use a combination of the collective suffix and the definite-singular suffix used in that variety, e.g., *-ala(ga)*, etc. For nominal attribution, the varieties L-KER, BAD, MAL, and KOR use simple juxtaposition instead of the inherited *ezafe* construction. Another feature setting BIJ apart from the rest of southern Kurdish is the use of the participle with a conjugated present-tense copula.

¹⁹ The Zagros *d* sound change is not just the post-vocalic outcome of *d in regional languages but rather a range of outcomes in several contexts, e.g., post-vocalic, post-sonorant, and as generalized sandhi variants Karim (2020; 2021; in review b)

In contrast, the rest of SK uses a verbal suffix and a fixed third-person copula. Belelli (2019) points to a split in the origins of the new innovative periphrastic progressive with the verbs *nîştin* (some MAL and BAD) and *daştin* (elsewhere). In BIJ, KOL, and KSZ, the definite plural suffix is compatible with enumeration, which contrasts with the rest of Kurdish, which uses singular forms with numbers. There is much variation in the formatives of the past-participle KOL, L-KER, and most of KSZ show *-î/-ê*, BIJ, MAL, and BAD have *-îg/-îğ*, and KOR has *-a*. Some varieties in the Kordali have a third-person plural pronoun *ownî*. Finally, some features set the Laki varieties apart from the rest of SK, e.g., the use of Lori prepositions, the second-person plural pronoun *(h)omê*, the reflexive pronoun *wij*, etc. L-KER has the inherited clitic pronouns *=man/=dan/=yan*, while the rest of SK has these forms augmented by the vowel */î/*, e.g., *=îman/=îtan/=îyan*.

I have grouped these morphological changes together in Table 5 for comparison. I have chosen to leave out the specific phonological features that Belelli (2019) presented because they seem to be regional features not confined to any of Fattah's (2000) subgroups. Rather, there is significant diversity among groups. A future study of this issue should look at phonological innovations through the Comparative Method, i.e., controlling for possible contact-induced features. Additionally, I have left out the periphrastic progressive; as discussed in section 1, developing a periphrastic progressive in a language with a single variant for the entire imperfective domain is cross-linguistically common and could be innovated at any time. I have ignored the formatives of the definite singular as it is not explicitly clear from Belelli (2019) or Fattah (2000) which variant is used in which location.

BIJ	KOL	KSZ	L-KER	MAL	BAD	KOR
DEF.PL = -EKAN			DEF.PL = -GELE(KE)			
ezafe			juxtaposition			
CARD N-DEF.PL			CARD N.SG			
PL = -an			PL = -GEL			
PRS,PRF = PCPL-COP.PN			PRS,PRF = PCPL.PN-COP.3SG			
PCPL = -îğ			PCPL = -î/-ê		PCPL = îg	
					PCPL = -e	

Table 5: Divisions based on Morphological features

In Table 5, the varieties of BIJ, KOL, and KSZ share the definite plural marker -EKAN²⁰, the consistent use of an ezafe construction, and the use of the compatibility of the definite plural with cardinal numbers. However, only the use of cardinal numbers with a plural is an innovation pointing to a shared development. The development of the definite plural -GELE(KE) is an innovation. Likewise, the use of juxtaposition instead of an ezafe construction is an innovation. BIJ separates from KOL, KSZ, and the rest of SK in its retention of the inherited plural, perfect, and participle forms. The rest of SK varieties have developed the collective plural marker and a fixed perfect suffix, which are both common across Kurdish and Iranian. Finally, the participle-forming suffixes, from *îg, *ag, and *ûg, show the same amount of variation observed across Kurdish, making anything that can be gleaned from their form poor evidence

²⁰ I use small capital letter here to show that this is a morpheme with corresponds to a variety of different formatives with a shared origin but phonological differences reflecting sound changes in individual varieties. Note that -EKAN and GELE(KE) are not reflective of how these formatives typically surface; the form *geleke may not surface in any variety. However, the combination of the indefinite plural marker from the word for 'flock' does occur with the reflex of the singular definite article in some varieties. Additionally, italics is used in Table 5 when referring to extant forms in individual languages not cognate constructions generically.

for subgrouping. Perhaps the only meaningful data point here is the development of the -GELE(KE) forms suggesting a unit between L-KER, MAL, BAD, and KOR. However, a single change is not a basis for genealogical subgrouping, and the development may be the logical result of the Kurdish demonstrative circumposition, e.g., *em* NP=*e* [DEM NP=DEM] (see Karim in review a).

5. Discussion

The development of imperfective markers proposed by Karim (2020; 2021; in review b) bears on our understanding of Kurdish dialectology. As far as imperfective marking is concerned, the highest level of diversity among Kurdish varieties is among those classified as Southern Kurdish. Moreover, many varieties superficially appear very different (e.g., Malikshahi and Kermanshahi) but are more closely related. This section represents a discussion of how these facts may be interpreted in the context of what has been discussed in the literature previously.

Belelli (2019:87) remarked that the forms of the imperfective markers in Southern Kurdish are “[p]articularly illustrative.” Presumably, this means they may be useful in deciding the dialect groupings. The changes that took place to create the various imperfective marking strategies are too common to be deemed significant on their own. I caution against using the individual forms alone to group dialects. For instance, the imperfective prefix *di-* is shared by varieties in Fattah’s (2000) MAL and KOR groups. This convergence was noticed by both Fattah (2000) and Belelli (2019); “The closeness of Bijari to the vernaculars of Posht-e Kuh is indeed mentioned by Fattah (2000: 18), who states that at least a section of Bijari speakers was resettled in its present location from Ilam sometime during the last three centuries” (Belelli 2019:89). It is not clear what that assertion is based on if not superficial similarity. Additionally, This assertion has not been confirmed by the overall picture of imperfective development, i.e., the Relative Chronology proposed in Karim (2020; 2021; in review b) and reiterated here does not support that conclusion.

Suppose we propose a genealogical relationship between varieties solely based on the development of the imperfective. In that case, the tree would look like Figure 2. All Southern Kurdish varieties follow the same evolutionary path--in regard to the imperfective markers--up to the borrowing of the Gorani-like negation marker. Borrowings are not to be used as evidence of genealogy, as they could have happened independently at any time. For instance, the Laki-Kermanshahi varieties of Harsin, Chihr, Payrawand, and Bisitun have also borrowed the negative marker *ni-* (along with the imperfective prefix *me-*) albeit at a different evolutionary stage, after the grammaticalization of the preposed enclitic =*e* and the suffix =*a*, and to a very different effect. In the case of the Kurdish varieties that borrowed the formative before the sound change, unimorphation, and leveling described in section 3.2, the Gorani-like negation marker *ni-* acts as a tracer. A good analogy is the ink injected into the bloodstream by a surgeon to find the source of internal bleeding. We can follow the development of the *ni-* forms that occur throughout a group.

At the point *ni-* entered the Southern Kurdish system, a new category was born, the Kurdish (SK2), with the reduced negation marker only in the present. Next, the extension of the Gorani-like negation marker in the past tense caused the creation of a third category, the Kurdish (SK3). Then, some of the varieties from each Southern Kurdish group (SK1, SK2, and SK3) leveled the affirmative imperfective markers to match the postvocalic (usually post-negation-marker) allomorphs. In Figure 2, I have color-coded the languages. The dark colors have been leveled, and the corresponding light colors have not. The light green signifies Laki-Kermanshahi, which I characterize as the Kurdish (SK1) varieties that first leveled the

postvocalic prefix and then borrowed the Gorani-like imperfective marker *me-* and negation marker *ni-*. The Kurdish (SK3) leveled forms are broken into two columns: the first column has lost the suffix *-ya*, causing the appearance of no imperfective markers except in certain circumstances (e.g., the negative).

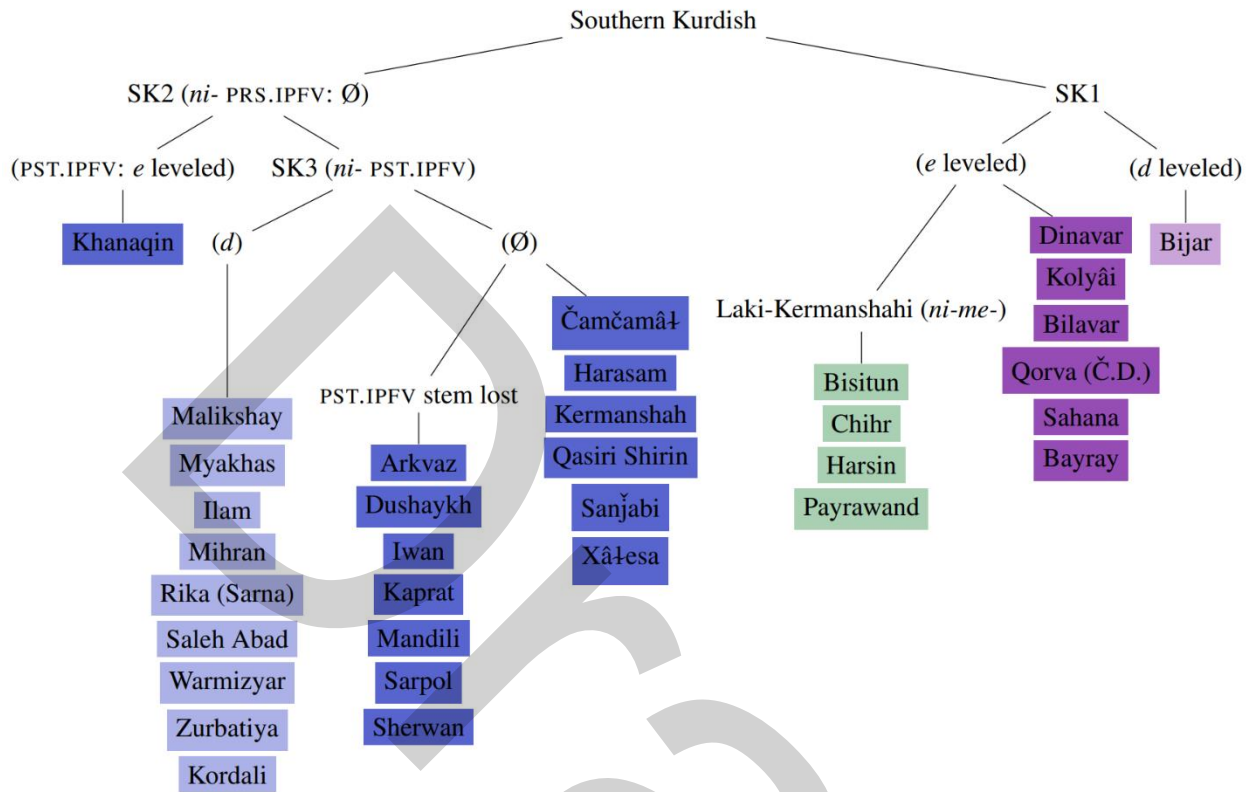


Figure 2: Subgrouping of Southern Kurdish based on Imperfective Markers

Fattah's (2000) seven dialect groups are not necessarily coherent regarding the divisions proposed based on imperfective markers alone. His first three distinctions (1) Bijari, (2) Kolya'i, and (3) Laki-Kermanshahi correspond to Kurdish (SK1) *d* leveled, Kurdish (SK1) *e* leveled, and Kurdish (SK1) leveled with the Gorani-like imperfective marker *me-*. (4) Kalhori-Sanjabi-Zangane corresponds to Kurdish (SK2) leveled and Kurdish (SK3) *e* leveled, and (5) Malekshahi, (6) Badre'i, and (7) Kordali all refer to Kurdish (S3), except for Khanaqin being grouped in with the leveled Kurdish (S3) forms. Fattah (2000) seems to overgenerate dialect groupings. This, coupled with Belelli's (2019) assertion that isoglosses did not necessarily support Fattah's (2000) groupings, leads me to believe that despite much diversity between Southern Kurdish varieties, the relationship between these varieties may be very close with much mutual independent innovation.

Based on the morphology of the imperfect tense, there are essentially only two major divisions, the Kurdish (SK1) group and the Kurdish (SK2/3), the latter having radically transformed its verbal system due to the borrowing of the imperfective marker *ni-*. This account aligns with Belelli's (2019) assertion that "The KSZ and MAL dialects are the broadest subgroups but seemingly not the most internally differentiated" (Belelli 2019:89). There is greater diversity between the SK1 varieties. However, much of that diversity can be attributed to isolation and contact phenomena. For instance, the canton of Bijar

often differs from the rest of SK by the retention of inherited forms, e.g., the plural marker *-an*, the retention of the participle-final consonant, a declined copula in the present perfect, etc.

An overview of Fattah's (2000) groupings and Belelli's (2019) possible isoglosses highlights one crucial point. Going forward, a comprehensive account of (Southern) Kurdish genealogy must consider significance. Many of the shared features of SK varieties are independently motivated, cross-linguistically common, or predicted based on initial conditions. Furthermore, much of what looks like radical differences can be attributed to the same processes of sound change and analogy affecting all the languages equally, with minute variation in the initial conditions (i.e., the introduction of the Gorani-like negation marker *ni-*).

6. Conclusion

There is nothing significant about recruiting a locative marker for an act-in-progress reading. Nothing is significant about a stative being recruited as a periphrastic perfect or that form to be generalized as a perfective/aorist. However, the recruitment of the stative participle as the nominal form in the periphrastic progressive crucially occurring before that participle verbalizes may be significant.

Postvocalic lenition of voiced stops is cross-linguistically common. However, the reduction represented by that lenition paradoxically preserved formatives lost in other environments, pointing to a shared development. I propose here that this chronology is a significant development despite the commonality of the individual changes. In an ideal world, this theory would be tested by a fairly well-established genealogy. If this subgrouping supported the establishment, then it would appear to have significance. In reality, the study of Southern Kurdish is impoverished, and a comprehensive study that looks at a range of innovations is greatly needed. That being said, there is a clear correlation between the forms that shared the same changes in the same relative order and their geographic location; compare the map in Figure 1 with the tree in Figure 2. My subgroupings differ from Fattah's (2000) only where his grouping violates geography in favor of superficial similarity, e.g., the contention that the separate group BIJ bears a close similarity with the MAL group. I take these points to be a tentative confirmation of the validity of the current hypothesis.

The current hypothesis is important to historical linguistics in general for several reasons. There is a perceived, if not actual, gap between the approaches of sociolinguists and historical linguists. Demarcating dialects based on morphological, phonological, syntactic, and lexical isoglosses without concern for what is significant should, in theory, produce the wrong results. More often than not, these two types of linguists come to similar conclusions. One possible explanation is that bundled isoglosses may preserve significant relative chronologies. Additionally, this hypothesis emphasizes the point that there is merit in telling complicated stories. Each of the stages described here has left remarkable evidence that has persisted throughout the evolution of Southern Kurdish, and much can be gleaned from the specifics.

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