

## RESEARCH

# Vestigial ergativity in Shughni: At the intersection of alignment, clitic doubling, and feature-driven movement

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This paper provides an account of two related aspects of the past-tense morphosyntax of Shughni (Eastern Iranian): (i) the use of second-position clitics, rather than the verbal suffixes of the present tense, to index past-tense subjects'  $\varphi$ -features; and (ii) a curious alignment pattern – sometimes referred to as *vestigial ergativity* – in which third-singular subjects of transitive and unergative verbs, but not unaccusative verbs, trigger a second-position clitic matched to their  $\varphi$ -features. After applying a battery of diagnostics to the Shughni clitics, I argue that these morphemes are the result of a clitic-doubling operation rather than agreement proper. A significant clue for this conclusion is the lack of any morphological material co-indexing third-singular unaccusative subjects, which I take to indicate that the past-tense clitics, unlike the present-tense suffixes, lack a default morpheme. This account not only provides support for the validity of diagnostics developed by previous authors for object clitics, but also highlights the importance of including subject clitics when developing a theory of clitic doubling and agreement. In the latter part of the paper, I build upon recent work on the alignment system of Davani (Western Iranian) to provide a feature-driven movement account of Shughni syntax, whereby all unaccusative subjects except third-singular move to a phase edge, where they are found by a probe on T<sup>0</sup> and trigger a second-position clitic bearing their  $\varphi$ -features.

**Keywords:** Pamir languages; Shughni; ergativity; alignment; clitic doubling; feature-driven movement

## 1 Introduction

This paper provides an account of two related aspects of the past-tense morphosyntax of Shughni (Eastern Iranian): (i) the use of second-position clitics, rather than the verbal suffixes of the present tense, to index past-tense subjects'  $\varphi$ -features; and (ii) a curious alignment pattern – sometimes referred to as *vestigial ergativity* – in which third-singular subjects of transitive and unergative verbs, but not unaccusative verbs, trigger a second-position clitic matched to their  $\varphi$ -features.

In Shughni, like in many other Iranian languages, the  $\varphi$ -features of verbal arguments are expressed by means of both *suffixes* – i.e. morphemes attaching directly to a verb stem – and *clitics* – i.e. phonologically weak morphemes which may attach to syntactic phrases of various types, and which, in the Iranian context, typically appear in second position. Also like in other Iranian languages which exhibit this phenomenon, Shughni  $\varphi$ -feature-bearing suffixes and clitics are in complementary distribution with respect to the grammatical contexts in which they are used. The Shughni pattern is simple: suffixes are used to co-index subjects of present-tense verbs and no past-tense verbs, while second-position

clitics are used to co-index subjects of past-tense verbs and no present-tense verbs.<sup>1</sup> This is illustrated in the following examples, where the present-tense environment in (1) calls for a suffix to index the second-person subject, but its past-tense counterpart in (2) calls for a second-position clitic:<sup>2,3</sup>

(1) Present tense → SFX  
 Tu mu win-i.  
 you me see.PRS-2SG.AGR  
 ‘You see me.’

(2) Past tense → CLTC  
 Tu = t mu wint.  
 you = 2SG me see.PST  
 ‘You saw me.’

The first goal of the present paper is to seek a deeper understanding of the Shughni clitics by establishing whether they are the result of *agreement* (i.e. the morphological spell-out of an Agree relation between a DP and a probe on a functional head, as in Chomsky 2000; 2001) or *clitic doubling* (i.e. the movement of a D<sup>0</sup>-like morpheme matched in  $\varphi$ -features to a doubled DP, as in e.g., Rezac 2008; Roberts 2010). I assume here that both agreement and clitic doubling depend on a prior Agree relation between a probe on a functional head (e.g. T or  $\nu$ ) and a DP, with the crucial difference being the type of morpheme generated in each. Section 2.3 gives more detailed background on the theoretical underpinnings regarding these two types of syntactic relations.

In the Iranian context, determining whether the morphophonological clitics bearing subjects’  $\varphi$ -features are the result of agreement or clitic doubling is by no means a trivial task. Many Iranian languages are like Shughni in making use of both morphophonological clitics and suffixes for indexing arguments’  $\varphi$ -features, but the distribution of each morpheme and the types of arguments for which they are used vary from language to language. Given this variability, coupled with their distribution as morphophonological clitics and their development from what were clearly pronominal clitics in prior stages of

<sup>1</sup> Past and perfect stems in Shughni are the descendants of Indo-European participles ending in *-ta* (e.g. Haig 2008), and as such are referred to by Stump & Hippisley (2011 :104) as “participial verb forms”. In general, the form of a perfect stem is predictable given a past stem (typically via affrication of the past-stem-final /t/ or /d/; e.g. *wint* ‘saw’ and *winch* ‘seen’). These stems are canonically used to refer to events or states which have already occurred, and may combine periphrastically with other elements to express nuances in aspect. Present stems, on the other hand, are canonically used to express current or future events and states and have a different etymological origin from past stems. In this paper, I use the term *past stem* as an umbrella term for past and perfect stems, which behave identically with respect to the grammatical phenomena in question, and to distinguish them from present stems, which form a class of their own with respect to the same phenomena.

<sup>2</sup> All Shughni examples come from my own fieldwork with a native speaker of the Shughni dialect spoken in the Badakhshan province of Afghanistan. However, the core patterns addressed in this paper are confirmed in other sources on the language, such as Stump & Hippisley (2011) and Payne (1980: 171; 1989: 437–438); see these same publications, as well as Wendtland (2009), for a description of non-canonical alignment systems in other Pamir languages.

<sup>3</sup> The orthographic situation for Shughni is rather complicated due to a combination of political and linguistic factors. According to Mueller (2015), those working with the language at Khorog State University in Tajikistan are using an alphabet with a mix of characters from Latin, Greek, and Cyrillic scripts. In Afghanistan, the Shughni-speaking community is collaborating with SIL and the Academy of Sciences to develop an alphabet for the language based on the Arabic script. Among the English-language publications on the language, there is little consistency with respect to the symbols used for transcribing the language. For ease of exposition in this paper, I have chosen here to use a working transcription system which uses no special IPA characters, in which the following graphemes represent the following Shughni phonemes: <th> = /θ/; <dh> = /ð/; <kh> = /x/; <gh> = /ɣ/; <sh> = /ʃ/; <zh> = /ʒ/; <ch> = /tʃ/; <j> = /dʒ/; <xh> = /ɣ/; <jh> = /z/; <c> = /ts/.

Iranian (Haig 2008), the languages of this group should be examined on a case-by-case basis to determine whether their  $\varphi$ -feature-bearing clitics are agreement morphemes or doubled clitics.

Nonetheless, a number of scholars have, often in passing, referred to these morphemes as agreement, suggesting that Iranian clitics of this kind are fundamentally the same type of morpheme as their suffixal counterparts (e.g. Roberts 2000 for Pashto; Haig 2008 for Pamir languages; and Moghaddam 2016 for Davani). While they often display a number of agreement-like properties in that they tend to be both obligatory and in complementary distribution with verbal suffixes, they bear a number of the hallmark properties of doubled clitics as well, most notably their distribution as morphophonological clitics (in the sense of Zwicky 1977 and Zwicky & Pullum 1983; see also Corbett 2006 and Kramer 2014 on the use of this property as a diagnostic). A significant point to be made in this paper is thus that determining the syntactic status of these morphemes in Iranian languages is not always a straightforward matter. As such, this research falls in line with a growing number of studies dedicated to distinguishing agreement from clitic doubling in other languages (e.g. Kramer 2014 for Amharic; Harizanov 2014 for Bulgarian; and Preminger 2019 for Basque). Here, I apply a number of diagnostics developed by Kramer (2014) to the Shughni clitics and ultimately conclude that they are the result of clitic doubling and not simply the morphological spell-out of an agreement relation.

The second issue at hand regards the morphosyntactic alignment of these clitics, in which all past-tense subjects obligatorily trigger a second-position clitic bearing their  $\varphi$ -features, with the exception of third-person singular subjects of unaccusative verbs. This phenomenon has been called *vestigial ergativity* (Hippisley & Stump 2011), as it is believed to be a remnant of a more robust ergative system which existed in the past tense of earlier Iranian languages (see Haig 2008 and references therein). The relevant pattern is exhibited in examples (3)–(6). In (3), the third-singular subject of the transitive verb *qīwdōw* ‘call’ is obligatorily co-indexed by the second-position clitic =*yi*, as is the subject of the unergative verb *zhēxhtōw* ‘run’ in (4). However, as (5) demonstrates, the appearance of the clitic is illicit when the verb in question is the unaccusative verb *tīdōw* ‘go’. To be sure, example (6) shows that when the subject is not third-singular, a clitic is required with the same unaccusative verb:<sup>4</sup>

- (3) 3SG TRANS → CLTC  
 Yā=**yi** khu nān-ard qīwd.  
 she = 3SG her mom-DAT call.PST  
 ‘She called her mom.’
- (4) 3SG UNERG → CLTC  
 Yā=**yi** tar khu chīd zhēxht.  
 she = 3SG to her house run.PST  
 ‘She ran to her house.’
- (5) 3SG UNACC → ~~CLTC~~  
 Yā(\*=**yi**) tōyd.  
 she = (3SG.CLTC) go.PST.F  
 ‘She went/left.’

<sup>4</sup> Note that throughout the paper, a hyphen is used to mark the boundary between a suffix and its host, and an equals sign is used to signal the boundary between a clitic and its host.

- (6) N3SG UNACC → CLTC  
 Wuz\*(= **um**) tōyd.  
 I = 1SG go.PST.F  
 'I went/left'

After having established that the morphemes in question are the result of clitic doubling, I provide what is to my knowledge the first detailed description of Shughni alignment, including the phenomenon of vestigial ergativity. I then offer a feature-driven movement account of this pattern which draws from and builds upon previous work by Moghaddam (2016) on a similar pattern found in the Western Iranian language Davani. Ultimately, I show that the same tool of feature-driven movement used by Moghaddam for Davani can be adapted to capture the Shughni pattern. In Shughni, I contend, movement of internal arguments occurs when an argument has at least one of the features [PLURAL] and [PARTICIPANT], where the latter includes both speaker and hearer, as in Harley & Ritter (2002). Hence, only internal third-singular subjects, which have neither of these features, fail to move to the phase edge where they are visible to a  $\varphi$ -probe on  $T^0$ . Importantly, however, I argue that despite their similarities, Davani and Shughni display a crucial difference at the structural level. Whereas the former has retained an ergative-assigning  $v^0$ , the latter has developed a fundamentally accusative system. Hence, the term *vestigial ergativity* is in fact something of a misnomer with respect to the Shughni data, as the language has now reached a stage in its history in which the only traces of ergativity are superficial and are derived not via some inherently ergative property of the language's structure, but rather by the interaction of features and movement of internal arguments. I suggest ultimately that the tool of feature-driven movement of internal arguments might be applied across the Iranian family and beyond to capture complex alignment splits of the kind found in Davani and Shughni.

The remainder of the paper is organized as follows. Section 2 provides background information on Shughni as well as some important preliminary discussion, including an overview of morphosyntactic alignment and terminology, particularly as pertains to the Iranian languages, and a primer on agreement versus clitic doubling. Section 3 then applies a battery of diagnostic tests to the Shughni second-position clitics used in the past tense, ultimately providing a clitic-doubling analysis for these morphemes. Section 4 takes this result a step further in providing a feature-driven movement analysis of these clitics, taking into account the curious phenomenon of vestigial ergativity in the language. Finally, Section 5 demonstrates how this feature-driven movement analysis compares to a similar analysis provided by Moghaddam (2016) for the Western Iranian language Davani, and suggests that the tool of feature-driven movement might be used across the Iranian family and beyond to account for hybrid morphosyntactic alignment systems of the type found in these languages. Section 6 summarizes and offers some concluding remarks regarding directions for further research.

## 2 Background

This section discusses important preliminary information that will set the stage for the analysis in the following sections. I first present an overview of the Shughni language (2.1), followed by a discussion of morphosyntactic alignment and relevant terminology (2.2), and finally a primer on agreement and clitic doubling which aims to lay the theoretical foundation for the following sections (2.3).

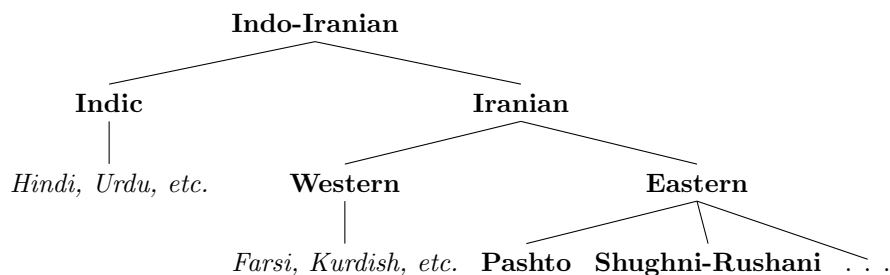
## 2.1 Shughni background

Shughni (ISO: sgh) is an Eastern Iranian language spoken in the Pamir Mountains of the Badakhshan Province of Northeastern Afghanistan and the Gorno-Badakhshan Autonomous Oblast' of Tajikistan. Although it is the most widely spoken of the Pamir languages, with approximately 40,000 speakers in total (*ethnologue.com*, Simons & Fennig 2017), Shughni is a relatively understudied and underrepresented language, both in the socio-political context of the countries where it is spoken and with respect to its representation within linguistic research.

Due to the current political climate and the tightly controlled border between Tajikistan and Afghanistan, it seems that Shughni speakers in each country generally do not have much contact with one another. Hence, at least since the start of the Soviet era nearly a hundred years ago, the varieties spoken in the two countries have developed largely independently of one another. From my own personal observations, for instance, the Shughni variety spoken in Tajikistan uses a considerable amount of Russian borrowings, while I did not encounter any such borrowings in my fieldwork with a speaker from Afghanistan. Thus, while this paper focuses on the Shughni dialect spoken in Afghanistan, an interesting point for future research involves the variation among Shughni dialects with respect to the kinds of morphological phenomena discussed here.

Genealogically, the language belongs to the Eastern Iranian branch of the Iranian group of Indo-European languages and forms part of a group of roughly fifteen languages known as the Pamir languages, spoken from Northern Pakistan and Afghanistan into Tajikistan and western China. Although these languages share a number of phonological and morphological characteristics, there is a lack of evidence to indicate that all languages considered part of this group share a single ancestor which distinguishes them from other Eastern Iranian languages (Wendtland 2008). The term *Pamir languages*, therefore, is best understood as referring to a *sprachbund*, rather than a branch of the Eastern Iranian languages. However, genetic relations among certain languages within the the Pamir group have been established, and Shughni is considered part of the Shughni-Rushani group, along with Rushani, Bartangi, Sarikoli, and a few others (see Wendtland 2008 for an overview of genetic classifications within the Pamir group).<sup>5</sup> A view of Shughni's genetic classification within the Indo-Iranian branch is given in (7):

### (7) Genealogy of Shughni



Like most other Iranian languages, Shughni is primarily head-final. Basic word order is SOV, but is in fact quite variable, as scrambling is common. Nouns are preceded by adjectives.

<sup>5</sup> There is also a lack of consensus as to whether the varieties of the Shughni-Rushani group should be considered dialects of a single language or separate languages. See Mueller (2015: 3–4) and references therein for discussion.

tives, which are in turn preceded by demonstratives (DEM-ADJ-NOUN). The language displays a mix of prepositions, postpositions, and suffixal elements indicating location.

Shughni displays a binary case distinction, with the *direct* (unmarked) case reserved for subjects, and the *oblique* (marked) case used as the *elsewhere* case (i.e. for direct objects, objects of adpositions, adnominal possessors, etc.).<sup>6</sup> Overt case marking in Shughni is restricted to a subset of demonstrative and pronominal forms and is realized through suppletion. Tables 1 and 2 illustrate the direct and oblique pronouns, respectively. Note that the third-person singular and plural forms double as demonstratives (pronouns which have distinct forms for direct and oblique are in bold):

**Table 1:** Shughni direct pronouns.

	<b>SINGULAR</b>	<b>PLURAL</b>
1	<b>wuz</b>	māsh
2	tu	tama
3	<b>yu</b> (m.) / <b>yā</b> (f.)	<b>wādh</b>

**Table 2:** Shughni oblique pronouns.

	<b>SINGULAR</b>	<b>PLURAL</b>
1	<b>mu</b>	māsh
2	tu	tama
3	<b>wi</b> (m.) / <b>wam</b> (f.)	<b>wev</b>

These pronouns are aligned in a strictly nominative-accusative pattern in both the present and the past tenses, without exception. The following past-tense examples illustrate this pattern for the first-singular pronoun, which appears in the direct case as both transitive subject (8) and intransitive subject (9), and in the oblique case as an object (10):

(8) [Wuz]<sub>A</sub> = um wi chōrik wīnt.  
 I = 1SG that.M.OBL man see.PST  
 ‘I saw that man.’

(9) [Wuz]<sub>S</sub> = um biyōr tar xhār firīpt.  
 I = 1SG yesterday to city arrive.PST  
 ‘I arrived to the city yesterday.’

(10) Yu = yi [mu]<sub>O</sub> wīnt.  
 he = 3SG me see.PST  
 ‘He saw me.’

As discussed briefly above, the language employs both suffixes and second-position clitics to co-index the  $\varphi$ -features of subjects. Like many Iranian languages, all tense/aspect combinations in Shughni are formed using one of a handful of verb stems (present, past, perfect, infinitive). For instance, the verb *khīdōw* ‘eat’ has the present stem *khār-* and the past stem *khūd*. Suffixes are used only in present-tense constructions, where they attach invariably to a verb’s present stem (e.g. *wuz khār-um* ‘I eat’), while the second-position clitics are used only in past-tense constructions, where the subject’s  $\varphi$ -features are expressed

<sup>6</sup> Genitive pronouns in Shughni are identical to oblique pronouns (e.g., *wi chīd* ‘his house’ and *wam chīd* ‘her house’).

via a second-position clitic and verbs typically appear as an uninflected past stem (e.g. *wuz = um khūd* ‘I ate’). The paradigm of each type of morpheme is given in Tables 3 and 4.

**Table 3:** Shughni (present) suffixes.

	SINGULAR	PLURAL
1	-um	-ām
2	-i	-ēt
3	-t/-d	-ēn

**Table 4:** Shughni (past) clitics.

	SINGULAR	PLURAL
1	=um	=ām
2	=(a)t	=ēt
3	=(y)i / ∅	=ēn

Present-tense suffixes show a fully nominative-accusative pattern, cross-referencing all subjects and absolutely no objects. The same pattern is found in the past tense, with the exception of third-singular arguments, for which there is a split-intransitive pattern where only transitive and unergative subjects trigger a clitic, while unaccusative subjects behave like objects in lacking a clitic (cf. examples (3)–(6)). This subtle hiccup in an otherwise fully accusative alignment system is addressed further in Section 4, while the status of these clitics as clitic doubling is argued for in Section 3. Section 2.2 below elaborates on morphosyntactic alignment and presents the terminology to be used in this paper.

Shughni has received relatively little scholarly attention in comparison with other Iranian languages such as Persian and Kurdish. A considerable portion of the extant work on Shughni consists of grammatical sketches (e.g. Morgenstierne 1929; Bakhtibekov 1979; Edelman & Dodykhudoeva 2009) and descriptions of specific aspects of the language, including, for instance, Karamshoev (1986) on gender; Dodykhudoeva (1988) on the verbal system; and Alamshoev (1994) on the pronominal system. Others scholars have looked at historical relations between Shughni and other Pamir languages (e.g. Sokolova 1967; 1973; and Morgenstierne 1974). A few dictionaries have been published, though primarily between Russian and Shughni (e.g. Zarubin 1960; Karamshoev 1988; and Badghisi et al. 2004). Only a handful of scholars have produced recent English-language works on the language; those who have include Barie (2009) on cleft sentences; Hippisley and Stump (2011) on morphology; and Mueller (2015) on deixis. While the data presented in this paper conform to descriptions of vestigial ergativity found elsewhere, there is to my knowledge no existing analysis of morphosyntactic alignment in Shughni, and in this paper I seek to fill this gap.

## 2.2 Morphosyntactic alignment and terminology

The description of morphosyntactic alignment systems tends to be based on three fundamental types of verbal arguments: subjects of intransitive verbs; subjects of transitive verbs; and direct objects of transitive verbs. I follow a number of authors in using S, A, and O, respectively, for these types of arguments. Intransitive subjects are subcategorized into unergative ( $S_A$ ) and unaccusative ( $S_O$ ), a distinction which will be important for the purposes of this paper.

Perhaps the two most fundamental types of alignment systems, both of which are relevant in the Iranian context, are *nominative-accusative* (often simply *accusative*) and

*ergative-absolutive* (often simply *ergative*). In an accusative system, transitive subjects (A) and intransitive subjects (S) pattern alike with respect to some morphological phenomenon, to the exclusion of objects of transitive verbs (O). In an ergative system, on the other hand, intransitive subjects (S) and transitive objects (O) pattern alike, to the exclusion of transitive subjects (A) (see Comrie 1978 and Dixon 1994 for an overview of different morphosyntactic alignment systems). A third type of alignment system is the *split-intransitive* system (also called split-S), a pattern which has been described by many authors as being related to ergativity (e.g. Comrie 1978; Dixon 1994; Deal 2015). In this system, transitive and unergative subjects (A and S<sub>A</sub>) pattern in the same way, while unaccusative subjects and objects (S<sub>O</sub> and O) behave another way. Many Iranian languages, including Shughni and Davani, display split-intransitive alignment in one portion of their past tense grammar.

One of the most salient features of the Iranian branch of the Indo-European language family is the variety of morphosyntactic alignment systems found in these languages' past tenses. It is generally agreed upon that a prior stage of Iranian developed split ergativity through the reanalysis of a passive-like construction favored in the past tense, whereby what were originally oblique agents behaving as adjuncts took on subject properties, while semantic patients lost subject properties and took on the properties of canonical objects (see e.g., Haig 2008; Jügel 2012).<sup>7</sup> The typological richness of modern Iranian alignment is a result of the different trajectories this ergative system has taken over time. Some Iranian languages, most notably Pashto, have preserved a robust system of ergativity in both agreement and case-marking (Roberts 2000; David 2014), while others, including Persian, have lost almost every trace of ergativity and now display accusative alignment. However, several modern Iranian languages exhibit alignment systems which do not readily conform to the properties of accusativity or ergativity and might thus be thought of as *hybrid* systems (Haig 2008). Both Shughni, with its vestigial ergativity, as well as the Western Iranian language Davani – examined in detail in Section 5 – fall into the final category.

Such hybrid systems, where the tense-based split is further modulated by the semantics of the verb and/or features of the nominal arguments in question, provide linguists with intriguing and often complex challenges. A handful of descriptive studies have provided a necessary first step in tackling these challenges (e.g. Payne 1980; Bashir 2009; and Wendtland 2009 on the Pamir languages; Farrell 1995 on Balochi; Mackenzie 1961; 1962 on Kurdish; see also Haig 2008; 2017 for an overview of the Western Iranian languages), but many minority Iranian languages remain under-described. Furthermore, only a few researchers have aimed to tackle these problems from a generative perspective, and this paper seeks to aid in filling this gap by describing and analyzing a curious pattern of alignment found in the Eastern Iranian language Shughni.

### 2.3 A primer on agreement vs. clitic doubling

Before looking more carefully at agreement and clitic doubling in the following paragraphs, a few words are in order regarding the usage(s) of the word *clitic*. This term is commonly used in two different ways: (i) to denote a morpheme which falls between

<sup>7</sup> It is well known that a common route from accusative to ergative alignment is through the reanalysis of a passive construction as active (Estival & Myhill 1988), and many scholars believe that the ultimate source of alignment change in Iranian languages was a passive, or passive-like, construction (e.g. Bynon 1979; 1980; Payne 1980; Bubenik 1989; a.o.). However, this is not universally accepted; Benveniste (1952), for instance, argues that the relevant construction was possessive in nature, and, more recently, Haig (2008) argues that it is based on *indirect participation* but is not formally a passive. Nonetheless, the status of this construction as active or passive is not relevant to the discussion here, and I therefore leave this debate aside.



suffixes and independent words with respect to phonological properties (i.e. *morphophonological clitic*; see Zwicky & Pullum 1983); and (ii) to describe the phonologically weak, reduced form of a pronoun which behaves syntactically like a  $D^0$  and often occurs as the result of clitic doubling (i.e. *syntactic clitic*; see e.g. Preminger 2019 and references therein; see also Bennett et al. 2018 for discussion on the different uses of the term *clitic*). Importantly, syntactic clitics tend to behave as morphophonological clitics with respect to their distribution (i.e. they must lean on an appropriate host), but this is only one of many criteria used to diagnose a morpheme as a syntactic clitic. In Section 3, I address the syntactic status of the Shughni past-tense morphophonological clitics and determine that they are the result of clitic doubling. Note that throughout the paper, I use the term *past-tense clitics* to refer to the second-position morphemes bearing the  $\varphi$ -features of subjects in the Shughni past tense.

The co-variance of a DP's  $\varphi$ -features with overt morphology on other elements in the clause is a familiar linguistic phenomenon. It is especially common in the verbal domain, where the  $\varphi$ -features of verbal arguments—most often subjects, but also direct and indirect objects—are expressed morphologically somewhere else in the clause, often on or near the verb itself. The terms *clitic doubling* and *agreement* constitute theoretical notions of how this co-variance in  $\varphi$ -features comes about. The mechanisms involved in each, for their part, are tailored to reflect empirical observations of fundamental differences in the types of morphemes involved in the exponence of an argument's  $\varphi$ -features. For instance, clitic doubling and agreement distinguish between different types of morphemes in examples like the following from Spanish:

(11) *Spanish* – Agreement

[Tú]<sub>DP</sub> habl-as.  
 you speak-2SG.AGR  
 'You speak.'

(12) *Spanish* – Clitic doubling

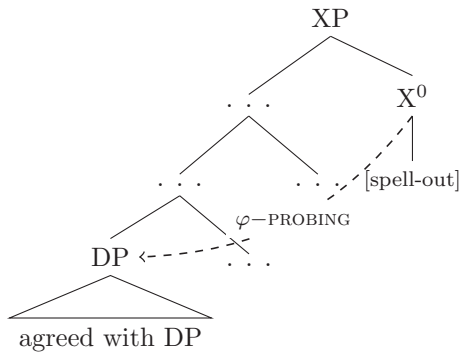
Yo te voy a hablar [a tí]<sub>DP</sub>.  
 I 2SG.CLTC go.1SG to speak to you.DAT  
 'I am going to speak to you.'

In both (11) and (12), the person and number features of the bracketed DP appear as separate morphology away from the DP itself. Though each of these morphemes appears to have a similar function—the co-referencing of the features of the second-person DP—there are two immediate differences between the two. The first regards their distribution: the morpheme in (11) is a verbal suffix, as it attaches only at the right edge of non-finite verb stems, while in (12) it is a morphophonological clitic, as it is more free in its distribution and may optionally occur at the right edge of the infinitive verb *hablar* 'speak'. Secondly, the clitic in (12) bears a much stronger resemblance to its corresponding DP than the morpheme in (11)—compare the similarity between the agreement morpheme *-as* and its corresponding pronoun *tú* to the similarity between the clitic *=te* and its corresponding full pronoun *tí*.

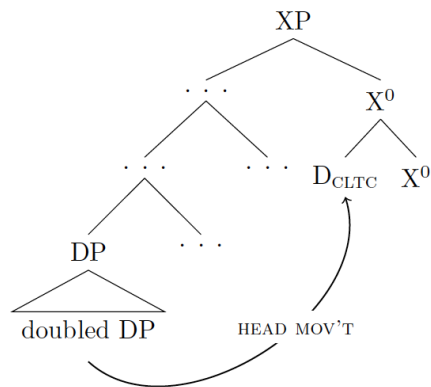
Both of these differences, among others, are reflected in the conceptualization of clitic doubling and agreement in the structure. Current theories have agreement as the morphological spell-out of  $\varphi$ -features on a functional head as the result of a syntactic relation between a probe (the functional head) and a goal (the DP) (Chomsky 2000; 2001). Clitic doubling, on the other hand, refers to the occurrence of a weak pronominal element, generally taken to be a  $D^0$ -head, which is matched in  $\varphi$ -features to the doubled DP and

appears alongside an appropriate host (e.g. Rezac 2008; Roberts 2010; Anagnostopoulou 2017; Preminger 2019). This distinction is modeled in the following structures:<sup>8,9</sup>

(13) **Agreement**



(14) **Clitic doubling**



This distinction is important in explaining some of the differing properties of these two morphemes, including their form—the clitic bears more resemblance to the DP—and their distribution—the suffix is more closely attached to its host. These differences will be discussed in more detail in the following section, which looks at the distinction between agreement and clitic doubling in the context of Shughni.

**3 Shughni past-tense clitics as clitic doubling**

Having discussed the theoretical framework to be used here, I now turn to determining what syntactic mechanism is responsible for the Shughni past-tense clitics. In doing so, I will draw from a recent line of research which has examined the nature of agreement versus clitic doubling in specific languages outside the Iranian family (e.g. Harizanov 2014 for Bulgarian; Kramer 2014 for Amharic; Preminger 2019 for Basque; a.o.). I build on the outcomes of this research to show that in Shughni, the distinction between these two phenomena is in fact not as clear as one might think upon first glance.

<sup>8</sup> Note that, as discussed in Rivero (1991), head movement of the kind in (14) skips other heads—i.e. is not successive cyclic—and therefore constitutes a violation of the Head Movement Constraint of Travis (1984). See also Preminger (2019) for relevant discussion.

<sup>9</sup> On the present account of clitic doubling, clitics are generated and moved from the same place as the doubled DP (following e.g., Preminger 2019). However, the details on how clitic doubling works are still debated in the literature. For Harizanov (2014), for instance, a full DP is moved and all non-head material is subsequently elided. What is important for the purposes of this discussion is that a doubled clitic is a D<sup>0</sup>-like morpheme, a notion which is generally agreed upon.

Ultimately, however, I argue that these morphemes are the result of clitic doubling. A key piece of evidence for this conclusion is the fact that while third-singular subjects of transitive and unergative verbs are indexed by the clitic = (y)i, there is no overt morphology in the clitic slot for third-singular subjects of unaccusative verbs (see Table 4). I take the lack of any morphological material here to indicate that there is no default morpheme to fill the second-position slot. As will be discussed below, lack of default morphology has been cited as a diagnostic which distinguishes clitic doubling from agreement (e.g. Preminger 2009; Kramer 2014).

An investigation into the status of these morphemes as clitic doubling or agreement is important for a number of reasons. Not only does it add the valuable perspective of subject clitics to the literature on clitic doubling, but it also contributes to our knowledge of the tendency for pronominal material to develop, over time, from free morphemes to clitics and ultimately to agreement (Ariel 2000; see Culbertson 2010 for evidence of an ongoing transition from clitics to agreement in French subject pronouns). While the diachronic implications of the Shughni data are a promising topic for future investigation, this section is restricted to the goal of filling in a general lack of analysis of this sort for languages in the Iranian family. Haig (2008: 117), for instance, states that the Shughni clitics are likely “TAM markers” of some kind, but does not go into any detail as to why he draws this conclusion. Likewise, in her analysis of Davani past-tense clitics, which share strikingly similar properties and distribution as those in Shughni, Moghaddam (2016: 24–28) draws only on the obligatoriness of the Davani clitics to argue that they are the result of agreement and not clitic doubling; however, she does not look to further diagnostics to support this conclusion.

I therefore aim to look at the Shughni data in such a way as to promote an approach which takes the distinction between agreement and clitic doubling seriously, particularly in the Iranian context where it seems to be especially blurred. In what follows, I first provide an overview of the diagnostics to be used (3.1) and then address those which point to clitic doubling (3.2) and agreement (3.3).

### **3.1 Diagnostics overview**

The criteria to be used as diagnostics are, in order of appearance: (i) distribution (affix vs. morphophonological clitic); (ii) formal similarity to pronouns and/or determiners; (iii) default morphemes; (iv) obligatoriness; (v) relevance of features of the DP (e.g. semantic features); and (vi) interaction with binding. Crucially, it is not necessarily the case that a given pattern involving the morphological co-referencing of an argument’s  $\varphi$ -features will display all the properties of agreement or all the properties of clitic doubling. In fact, paradigms of this type might even be the minority. Instead, as Kramer (2014: 612) puts it, “power lies in numbers” when it comes to using these properties to distinguish between the two.

This, as we will see, is precisely the problem at hand for the Shughni past-tense clitics. As it turns out, the clitics are evenly split, displaying three characteristics of clitic doubling and three characteristics of agreement. I will argue, however, that the characteristics for which the clitics pattern like agreement are in fact not relevant in the case of Shughni, because these diagnostics were developed for objects, and the arguments in question are subjects. I conclude that the Shughni subject clitics are the result of clitic doubling, and that the diagnostics which appear to class them as agreement are in fact not appropriate because the higher position of external subjects renders them irrelevant.

### 3.2 Clitic-doubling-like properties

#### 3.2.1 Distribution

Agreement tends to be realized as an affix, while clitic doubling tends to be realized as a morphophonological clitic.<sup>10</sup> In the Spanish examples in (11) and (12), for instance, not only is the agreement morpheme bound to its host phonologically, but each is also bound to the other morphologically, as neither can stand alone. In this sense, the agreement marker and its host are complementary. This is generally not the case for clitics, however. While the clitic in (12) is phonologically dependent on its host, the host is not morphologically bound in the same way as an agreement marker, as it does not need to be made complete by a clitic. The same distinction holds of the Shughni agreement suffixes and past-tense clitics. Although both are complementary, the hosts of agreement suffixes – i.e. present stems – cannot occur alone, whereas any element which hosts a clitic must be able to occur alone.

The Shughni past-tense clitics display a number of the properties of morphophonological clitics outlined in the seminal work of Zwicky (1977) and Zwicky & Pullum (1983). First, like the Spanish clitics above, they cannot bear stress. And second, they appear outside all affixal material, as shown in the examples below. In (16), the clitic appears after the infinitival suffix *-ōw* and the locative suffix *-and*. In (16), it appears after the plural suffix *-ēn*:

(15) Xhēd-ōw-and = **um** vud.  
 study-INF-LOC = 1SG be.PST.M  
 ‘I was studying.’

(16) Wēv jhinik-ēn = **um** wīnt.  
 those.OBL women-PL = 1SG see.PST  
 ‘I saw those women.’

Moreover, these clitics can attach to phrases of many different types. That is, unlike affixes, they are not selective with respect to the type of host they select; rather, a number of constituent types may occupy first position, and a clitic, if present, simply attaches to the constituent in first position. Examples (17)–(20) show a clitic attaching to an NP, AP, PP, and V, respectively:

(17) NP  
 [Tu chīd]<sub>NP</sub> = **um** wīnt (wuz).  
 your house = 1SG see.PST (I)  
 ‘I saw your house.’

(18) AP  
 [Biyōr]<sub>AP</sub> = **um** tu wīnt (wuz).  
 yesterday = 1SG you see.PST (I)  
 ‘I saw you yesterday.’

(19) PP  
 [Tar xhār]<sub>PP</sub> = **um** tu wīnt (wuz).  
 in city = 1SG you see.PST (I)  
 ‘I saw you in the city.’

<sup>10</sup> See Corbett (2006: 75–76) for an apparent counterexample in which agreement morphemes behave as morphophonological clitics.

- (20) V  
 [Wint]<sub>v</sub> = **um** tu (wuz).  
 see.PST = 1SG you (I)  
 ‘I saw you.’

The distribution of these morphemes is in stark contrast to the present-tense agreement suffixes, which attach only to present-tense verb stems. With respect to this diagnostic, past-tense clitics in Shughni behave as morphophonological clitics rather than affixes.

### 3.2.2 Similarity to pronouns/determiners

A doubled clitic is more likely to bear resemblance in form to its corresponding pronoun or determiner than an agreement morpheme. Again, this follows from what we know about the nature of clitics and agreement morphemes. If a clitic is a  $D^0$ -like element, then it should be no surprise that it resemble the full pronominal form or determiner whose  $\varphi$ -features it matches. There is no such expectation for agreement morphemes, which are simply the spell-out of a syntactic relation.

Importantly, this criterion should be used with some caution, as agreement morphemes may in fact resemble their corresponding pronouns. This follows from the well-known historical trajectory of these morphemes from pronoun to clitic to agreement (Ariel 2000). This criterion seems to be more helpful in comparing two phenomena within the same language. That is, within a single language, if the morphemes of one paradigm appear more similar to the forms of pronouns or determiners than those of another, then it is more likely that the former are the result of clitic doubling.

This is the type of situation we find in Shughni. Although the paradigm of present-tense suffixes and past-tense clitics are nearly identical in form—differing only in two cells, the second- and third-person singular—the second-person singular clitic form clearly bears more resemblance to the full pronoun form than the second-singular agreement suffix. Compare the second-person singular pronoun *tu* to the agreement suffix *-(y)i* and the clitic *=(a)t*, as shown in Table 5 (the second-person singular pronoun has the same form in the direct and oblique case – see Tables 1 and 2).

**Table 5:** Shughni 2SG forms.

(AGR.) SUFFIX	CLITIC	FULL PRONOUN
-(y)i	=(a)t	tu

The voiceless consonant [t] in the second-singular clitic does not assimilate in voicing to its preceding sound, unlike the third-singular agreement affix, which assimilates to its preceding sound in voicing. Instead, if the preceding sound is a voiced consonant, an epenthetic vowel is inserted and the voiceless consonant is preserved (e.g. *chīd = at*). Hence, the second-singular clitic retains its similarity to its corresponding full pronoun, even in situations where phonotactics dictate it should undergo assimilation.

Taken at face value, the difference in forms between affixes and clitics may seem so slight as to be insignificant. However, what is important is that when compared to agreement suffixes, past-tense clitics bear more resemblance to full pronouns. I suggest here that the near syncretism of present-tense affixes and past-tense clitics in Shughni corresponds to the nature of the language’s ongoing shift toward nominative-accusative alignment. While I maintain here that the Shughni past-tense clitics are indeed clitics rather than affixes, it should not be surprising that, as the shift in morphosyntactic alignment progresses, the present-tense affixes and past-tense clitics show increasing similarity in form and distribution as they fulfill increasingly similar functions in the language. From a

generativist perspective, this amounts to the idea that  $\varphi$ -features on  $T^0$  result in formally similar morphology, regardless of whether they are agreement morphology or a doubled clitic. This syncretism stands in contrast, for instance, to the corresponding agreement and clitic morphemes in the more robustly split-ergative languages Davani and Pashto, which differ rather significantly in form.

### 3.2.3 Default morphemes

Default morphemes are typically used to fill a morphological slot dedicated to agreement in cases where the agreement relation has failed. According to Preminger (2009), features which go unvalued due to a failed agreement relation simply retain their preexisting values, which may be in turn spelled out as default morphology (see also Preminger 2014 for discussion on failed agreement relations and their outcomes). Clitic doubling, on the other hand, “refers to the very *creation* of a feature-matched pronominal morpheme on the basis of an existing noun phrase”, and therefore “its failure should result in the absence of such a morpheme altogether” (Preminger 2009: 623, emphasis mine).

Hence, the discrepancy between agreement and clitic doubling with respect to default morphology is to be expected given the nature of these two phenomena. Moreover, as noted above, agreement morphemes are often morphologically co-dependent with their hosts. As such, it is no surprise that their slot must be filled by some morphological material, even if this material does not reflect the  $\varphi$ -features of any DP in the clause. In the case of clitic doubling, on the other hand, we are dealing with the movement of a  $D^0$ -like morpheme; if, for whatever reason, this morpheme is not generated, then nothing can be moved and no morphological material is spelled out in the slot where the clitic normally appears.

It is clear that the Shughni past-tense agreement clitics lack a default morpheme (see Table 4). Unlike present-tense suffixes, there are instances in the past tense when the slot where a clitic generally appears is not filled, as in (5). (This pattern is discussed further in Section 4.) Although it is common cross-linguistically that certain cells in an agreement paradigm, often third-person singular, be null, the Shughni past-tense clitics *do* have an overt morpheme occupying the third-singular cell. The morpheme = (y)i appears for all third-singular subjects of transitive and unergative verbs, but does not appear for unaccusative subjects, a pattern which was exhibited in (3)–(5). In this sense, the third-singular cell in the paradigm of Shughni past-tense clitics is distinct from an empty cell in an agreement paradigm, for which overt morphology does not appear under any circumstances.

The three properties of the clitics discussed in this subsection – their distribution as morphophonological clitics; their relative formal similarity to pronouns; and their lack of a default morpheme – are all suggestive of clitic doubling.

### 3.3 Agreement-like properties

We now turn to the diagnostics for which these morphophonological clitics pattern like agreement. After outlining each diagnostic and the relevant Shughni data, I present an argument as to why the diagnostic is in fact not relevant in the case of subject clitics like those in Shughni. The reasoning behind the irrelevance of each diagnostic boils down to the idea that because subjects and objects are consistently in different places in the structure, we should expect them to behave differently with respect to clitic doubling, an operation which makes reference to the structural position of the arguments in question. I ultimately conclude, therefore, that these morphemes are the result of clitic doubling rather than agreement.

### 3.3.1 Obligatoriness

Agreement tends to be obligatory, while at least some instances of clitic doubling are optional. Take, for instance, the following examples from Rioplatense Spanish, where the third-person singular object clitic =*lo* is optional, but the third-person agreement suffix -*a* is obligatory:

- (21) *Spanish* (Jaeggli 1982: 14)  
 (Lo) vimos a Guille.  
 3SG.M.CLTC saw.1PL a Guille  
 ‘We saw Guille.’
- (22) *Spanish*  
 Guille siempre mir-a películas.  
 Guille always watch-3SG.PRS.AGR movies  
 ‘Guille always watches movies.’

In Shughni, there is never a case in which the use of a clitic is optional, as was the case in the Spanish example in (21). It is ungrammatical to leave out a past-tense clitic in all cases except when there is a third-person singular unaccusative subject, and in these cases it is always ungrammatical to have an overt past-tense clitic. The following examples illustrate that the use of a clitic is not optional with constructions where the subject is not third-singular unaccusative:

- (23) Tu\*(=t) ruse ziv xheyj.  
 you.SG\*(=2SG) Russian language study.PRF  
 ‘You have studied Russian.’
- (24) Yu chōrik\*(=i) khu nān-ard qīwd.  
 that.M man\*(=3SG) his mother-DAT call.PST  
 ‘That man called his mother.’

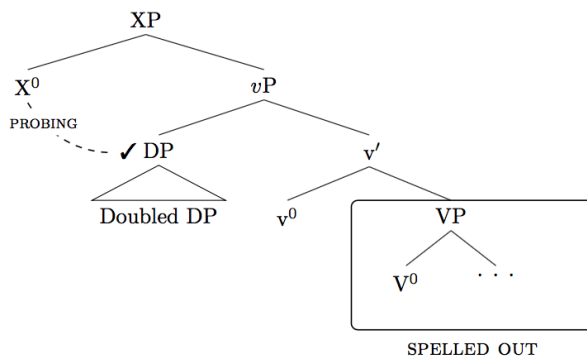
Now, to see why obligatoriness is not relevant in the case of Shughni, consider that under many analyses (e.g. Preminger 2019), it is not the clitic-doubling operation itself which is optional; rather, what is variable is the presence or absence of features which trigger movement of the DP in question to a position from which it can be clitic doubled. This gives the illusion that the clitic-doubling operation is optional, but in fact it is obligatory if an argument is in a position from which it can be clitic doubled. Note further that the same group of features (e.g. definiteness, animacy, etc.) which triggers clitic doubling is often the exact same set of features that triggers Differential Object Marking (DOM), as in Bossong (1985; 1991), an independent reason to believe that the object has moved to a different position from which clitic doubling is obligatory, and that the clitic-doubling operation is not optional.

If clitic doubling is realized by way of a probe somewhere in the CP-phase searching downward for a viable DP-target, then objects which are generated inside of VP would virtually always have to move up to the edge of the phase to be accessible for this operation. This is not the case for subjects, of course, as external subjects would be base-generated in a position from which they can be doubled without any movement at all. Moreover, it follows that in a language where subjects are clitic doubled, only internal (i.e. unaccusative) subjects may fail to be clitic doubled. And indeed this prediction is

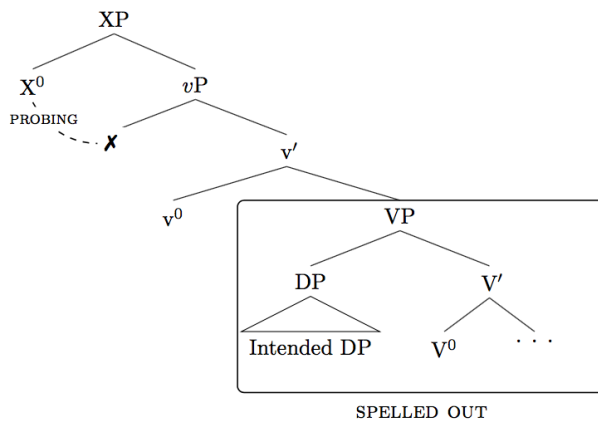
borne out in Shughni. As we will see in the discussion in Section 4, feature-driven movement is a necessary step for Shughni VP-internal arguments (i.e. unaccusative subjects) to reach a place in the structure where they are be visible for the clitic-doubling operation. External subjects, however, are generated higher than VP and are always clitic doubled. In this sense, because it is subjects which are the targets of clitic doubling in Shughni, we should expect the operation to be (more) obligatory than in languages where objects are doubled.

This concept is illustrated in (25) and (26). Note that it is assumed that unaccusative subjects are generated in the same position as an object DP, as in (26), while unergative and transitive subjects are base-generated in Spec, *v*P, as in (25).

(25) **Base-generated subject**



(26) **Base-generated object**



I thus conclude, along with Preminger (2019), that obligatoriness alone is not enough to determine a morpheme’s status as agreement or clitic doubling and that we must take into account the effects of factors such as the structural position of the arguments in question. Similar arguments are provided below regarding the relevance of the semantic interpretation of the DP and binding effects.

**3.3.2 Relevance of the semantic interpretation of the DP**

In many cases, a DP may only be clitic doubled if it has some relevant semantic property which sets it apart, often definiteness or animacy (see e.g., Kramer 2014; Preminger 2019). Such features, however, do not typically modulate the realization of agreement. Semantic interpretation is relevant, for instance, in Spanish clitic doubling, where a DP must be interpreted as both definite and human to be clitic doubled, but it is not relevant for agreement in Spanish.



The realization of past-tense clitics in Shughni is not dependent on semantic interpretation of this kind. Instead, these morphemes appear with all subjects regardless of definiteness, animacy, or any other property. The following examples illustrate that in the Shughni past tense, a subject takes an overt clitic regardless of whether it is definite, as in (27), indefinite specific, as in (28), or indefinite non-specific, as in (29).

(27) **Definite**

Yā divusk\*(=i) wi chōrik zhirōxht.  
 that.F snake(=3SG) that.M.OBL man bit  
 ‘That snake bit that man.’

(28) **Indefinite specific**

Yi divusk\*(=i) wi chōrik zhirōxht.  
 one snake(=3SG) that.M.OBL man bit  
 ‘A snake bit that man.’

(29) **Indefinite non-specific**

Yi muallim\*(=i) ar mēth Mawlodod tar maktab yōd.  
 One teacher=3SG every day Mawlodod to school took  
 ‘A teacher took Mawlodod to school every day.’

**Context for (29):** Mawlodod’s parents are out of town and he needs someone to take him to school everyday. There are ten teachers at Mawlodod’s school, and one of them takes him to school each day, though the teacher who takes him may be a different one from day to day.

Examples (30) and (31), for their part, show that both animate and inanimate third-singular subjects trigger a clitic:

(30) **Animate**

Yu\*(=yi) khu nān wīnt.  
 he(=3SG) his mom see.PST  
 ‘He saw his (own) mom.’

(31) **Inanimate**

Yā zhīr\*(=i) mu dhōst virōxht.  
 that.F rock(=3SG) my hand broke  
 ‘That rock broke my hand.’

Finally, examples (32)–(35) show that clitics are obligatory with both universal and negative quantifiers, as well as *wh*-words.

(32) **Universal quantifier**

Ar muallim\*(=i) Mawlodod tar maktab yōd.  
 every teacher=3SG Mawlodod to school took  
 ‘Every teacher took Mawlodod to school.’

(33) **Negative quantifier**

Ichayath\*(=i) Mawlodod tar maktab na-yōd.  
 no.one=3SG Mawlodod to school NEG-took  
 ‘No one took Mawlodod to school.’

(34) **Wh-word – ‘what’**  
 Chīz\*(=i) khūd?  
 what = 3SG ate  
 ‘What did he/she eat?’

(35) **Wh-word – ‘how’**  
 Carāng\*(=i) wam nosh khūd?  
 how = 3SG that apricot ate  
 ‘How did he eat that apricot?’

The idea that the semantic interpretation of the subject DP should not be relevant for the clitic doubling of external subjects follows the same line of logic as that for obligatoriness discussed above, namely that the position of external subjects within the CP-phase renders them available for the Agree operation which precedes clitic doubling without any prior movement taking place. On the other hand, when an object is clitic doubled, it is generally by virtue of some semantic feature(s) which trigger its movement into a domain where it is visible for Agree (e.g. Diesing 1992; Aissen 2003; Kalin 2018; see Preminger 2019 on the notion that the clitic-doubling operation first requires syntactic  $\varphi$ -agreement to take place). In Spanish, then, it is the features [DEFINITE] and [HUMAN] which allow an object DP to move to the phase edge and, subsequently, be clitic doubled. In the case of subjects, only those generated within VP (i.e. internal subjects), must undergo such movement to be clitic doubled, as they do in Shughni by virtue of the features [PLURAL] and/or [PARTICIPANT] (to be discussed in Section 4). The notion that the clitic doubling of external subjects should not be dependent on semantic features is indeed borne out in Shughni, where all external subjects are clitic doubled regardless of semantic interpretation.

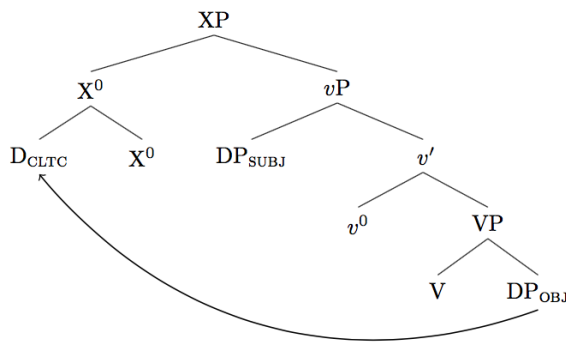
### 3.3.3 Interaction with binding

Finally, doubled clitics have been shown to interact with binding relations, while agreement morphemes do not interact with binding. This is expected given that clitics are pronoun-like morphemes which undergo movement, and that pronouns play an important role in establishing binding relations (Anagnostopoulou 2003 on Greek; Kramer 2014 on Amharic; Harizanov 2014 on Bulgarian). On the other hand, agreement morphemes are the morphological spell-out of feature bundles and therefore cannot refer in the same way as clitics. Moreover, while movement is always involved in clitic doubling, it is not necessarily involved in agreement, and hence hierarchical relations between DP’s are not affected in the case of agreement.

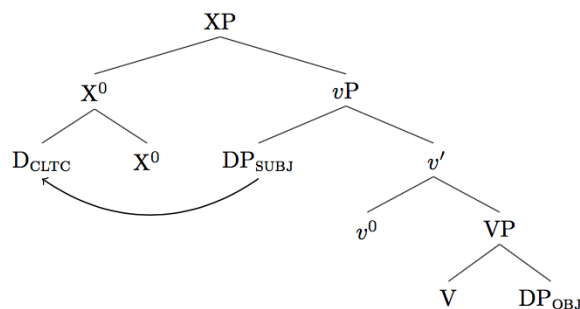
There is no evidence that past-tense clitics in Shughni affect binding relations. However, I argue here that even if these morphemes are syntactic clitics, we should not expect them to affect binding relations. I present three pieces of evidence for this conclusion and conclude that the Shughni past-tense clitics are indeed the result of clitic doubling.

The first situation in which we might expect a change in binding relations is when an object clitic moves above a subject, thereby reversing the hierarchical relation of subject and object. On the other hand, if a subject is doubled, then, all else being equal, it should maintain its relative position in the structure with respect to the object. Compare a moved object clitic in (36) to a moved subject clitic in (37):

(36) **Movement of doubled object**



(37) **Movement of doubled subject**



In (36) the doubled clitic of the object is now higher in the structure than the subject DP, which is in its base-generated position of Spec,vP. In (37), however, the relative positions of the subject and object remain unchanged. Although the doubled clitic of the subject has moved higher in the structure and is adjoined to X<sup>0</sup>, it still maintains the same position relative to the object DP, which is in its base-generated position of Spec,VP.

Secondly, clitic doubling has been shown to repair binding issues like backward pronominalization (see Kramer 2014: 604–605 for a clear instance of this type of repair in Amharic). According to Kramer, the fact that syntactic clitics can affect binding relations is to be expected on the view that they are pronoun-like elements, and pronouns are inevitably implicated in binding relations. In Shughni, however, repairing instances of backward pronominalization is rendered unnecessary by the existence of the reflexive genitive pronoun *khu* ‘self’, which is always bound by an overt DP in the clause. Hence, there is no problem with interpreting the following sentences, which may result in issues of backward pronominalization in other languages, because the noun modified by *khu* must always be co-indexed with an overt NP. This is true whether the construction involves an agreement suffix, as in the present-tense example in (38), or a clitic, as in the past-tense example in (39):

(38) *Khu<sub>i</sub> nān Karim<sub>i</sub> wīn-t.*  
*khu* mom Karim see.PRS-3SG.AGR  
 ‘His<sub>i</sub> mom sees Karim<sub>i</sub>.’

(39) *Khu<sub>i</sub> nān = i Karim<sub>i</sub> wīnt.*  
*khu* mom = 3SG.CLTC Karim see.PST  
 ‘His<sub>i</sub> mom saw Karim<sub>i</sub>.’

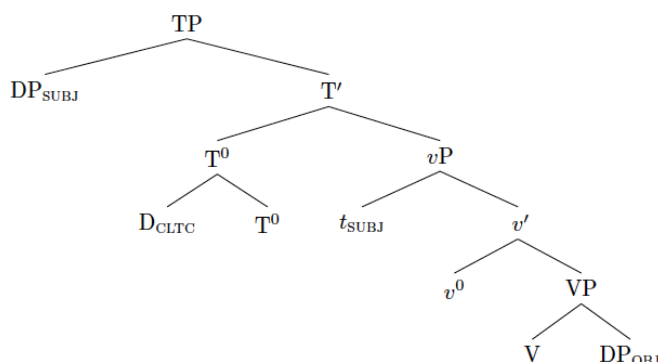
To be sure, if the third-person possessive adjective *wi* – which is identical to the third-person oblique pronoun – is used instead of the possessive pronoun *khu*, it must not be co-indexed with a DP in the clause:

(40)  $Wi_{*i/j}$              $n\bar{a}n$      $Karim_i$      $w\bar{i}n-t$ .  
 3SG.M.OBL mom Karim see.PRS-3SG.AGR  
 ‘His<sub>\*i/j</sub> mom sees Karim<sub>i</sub>.’

(41)  $Wi_{*i/j}$              $n\bar{a}n = i$              $Karim_i$      $w\bar{i}nt$ .  
 3SG.M.OBL mom = 3SG.CLTC Karim see.PST  
 ‘His<sub>\*i/j</sub> mom saw Karim<sub>i</sub>.’

Finally, we might expect inappropriate binding relations to occur in Shughni between a doubled subject DP and its corresponding clitic. In particular, a violation of Principle B would occur in cases where the doubled subject clitic, *qua* pronoun, is bound by the subject DP within the same TP. This situation is illustrated in (42), where the subject DP in Spec,TP binds the doubled subject clitic adjoined to T<sup>0</sup>:

(42) **Principle B violation with subject clitic**



However, as we will see in Section 4, Shughni has an EPP-feature on T which does not target subjects specifically; rather, any constituent can move to its specifier position. Like related movement in V2 languages, the choice of which constituent to move to first position is linked to pragmatic notions of focus and topicality. With this in mind, I take this movement in Shughni to be an instance of  $\bar{A}$ -movement, which is generally taken not to create new binding relations (see van Urk 2015 for an overview of the distinctions between A-movement and  $\bar{A}$ -movement). Therefore, even in examples like (42), where a subject DP appears to bind its associated pronominal clitic, we should not expect ungrammaticality due to illicit binding relations, as the former has reached the specifier of TP via  $\bar{A}$ -movement (see Baker & Kramer 2018 for further discussion on the connection between EPP, clitic doubling, and binding relations).<sup>11</sup> For these reasons, the fact that Shughni past-tense clitics do not interfere with binding relations is irrelevant in determining whether these morphemes are the spell-out of agreement or doubled clitics.

Before concluding this section, note that I purposefully leave out one of Kramer’s diagnostics—allomorphic variation depending on the features of T—which is also alluded to in early work on clitics and affixes (e.g. Zwicky & Pullum 1983) and in Nevins (2011). This diagnostic effectively states that the form of agreement morphemes may vary with features of the functional head with which it is associated (e.g. tense features on T<sup>0</sup>), while

<sup>11</sup> Many thanks to an anonymous reviewer for pointing out this connection between the EPP and tolerance of subject clitics.

doubled clitics, as  $D^0$ -like morphemes, are both more fixed in form and not as closely associated with a functional head in question and should thus not vary in this way.

In the case of Shughni, this diagnostic could be applied to the past-tense clitics and used to argue for either agreement or clitic doubling, depending on one's analysis. The paradigms of agreement suffixes and past-tense clitics are the only two variants of morphemes which expone the  $\varphi$ -features of DP's in Shughni. The use of each depends solely on the type of verb stem in question: suffixes are used with present stems, and clitics are used with past stems. If we wished to analyze both paradigms as agreement, we could say that their difference in distribution and form arises from variation in features on the functional head with which they are associated. That is, agreement with  $T_{PRS}$  results in a suffix, while agreement with  $T_{PST}$  results in a morphophonological clitic. If, on the other hand, we wished to analyze the past-tense clitics as clitic doubling, we could use this same criterion in our favor. In particular, the fact that these morphemes do not vary in form or distribution, regardless of whether they are associated with a past or perfect stem, could be used to argue for their lack of variance with respect to aspectual features of T.

Furthermore, Yuan (2018: 55–58) argues that there is in fact no reason to believe that syntactic clitics cannot undergo allomorphy based on the features of the functional head which hosts them, as they are both structurally and linearly adjacent to this host. She cites as evidence instances in which the presence of two adjacent clitics seems to trigger allomorphy, as in the Spanish *spurious* *se* (Perlmutter 1971; Bonet 1995; Nevins 2007), and a phenomenon from the Yimas language of Papua New Guinea in which syntactic clitics undergo allomorphy based on the features of the functional head which hosts them (Yuan 2019). For these reasons, I leave the criterion of TAM-based allomorphy aside for the purposes of the discussion in this paper and conclude that the Shughni past-tense clitics are the result of a clitic-doubling operation.

### 3.4 Section summary

To sum up, although Shughni past-tense clitics may bear certain hallmarks of agreement (e.g. obligatoriness), I have contended here that once we have done our due diligence and applied the diagnostics of Kramer (2014), a clitic-doubling analysis is in fact more favorable than an agreement analysis. Three properties of these morphemes, namely their distribution, relative formal similarity to full pronouns, and lack of a default morpheme, point clearly to clitic doubling. I have argued further that the other three diagnostics are not relevant to the past-tense clitics of Shughni because the doubled arguments are subjects rather than objects. A summary of the diagnostics applied to Shughni is given in Table 6.

**Table 6:** Summary of diagnostics.

<b>Diagnostic</b>	<b>Result</b>	<b>Indicates</b>
Distribution	Morphophonological Clitic	CLITIC DOUBLING
Form	(More) similar to pronouns	CLITIC DOUBLING
Default Morpheme?	No Default Morpheme	CLITIC DOUBLING
Obligatoriness	Obligatory	N/A
DP-features relevant	Not relevant	N/A
Binding Interactions	Binding not affected	N/A

Before concluding this section, I will stress what I believe are two important aspects of this research. First, there is a general need, throughout the scholarship on Iranian languages, for a more thorough approach toward analyzing morphological phenomena

such as the Shughni past-tense clitics. Thus, I hope to have modeled such an approach here, and I hope that in the near future endeavors such as this one will be taken up for similar paradigms of morphemes in other Iranian languages. And second, this investigation into Shughni clitics not only highlights the importance of tailoring these diagnostics depending on the details of language in question – in this case the distinction between subject and objects; it simultaneously provides evidence for the validity of the existing diagnostics in that the subject clitics of Shughni behave quite predictably given the formulation of these criteria and the positional differences between subjects and objects.

#### 4 A feature-driven movement account for Shughni

Having determined that the Shughni past-tense clitics are the result of clitic doubling, we now turn to an analysis of these clitics based on the feature-driven movement of internal arguments. The analysis in this section is inspired by and builds upon a similar analysis by Moghaddam (2016) for a hybrid alignment system found in the Western Iranian language Davani. After presenting my account of Shughni here, in Section 5 I turn to a comparison of this account with Moghaddam’s Davani analysis. A key advantage of the Shughni analysis presented here is that it uses the same core tool used by Moghaddam for Davani, namely feature-driven movement of internal arguments, to account for past-tense clitics in Shughni and capture the phenomenon of vestigial ergativity. Before moving to the analysis, however, in 4.1 we briefly review morphosyntactic alignment in Shughni and bring to the forefront the core pattern of vestigial ergativity. This will inform the account presented in 4.2.

##### 4.1 Review of Shughni alignment

Recall that Shughni retains morphological case, albeit only in a subset of pronouns and demonstratives (cf. Tables 1 and 2), and that case-marking in Shughni is strictly nominative-accusative in both tenses. Shughni employs both suffixes and clitics to cross-reference the  $\varphi$ -features of subjects; suffixes are restricted to the present tense, while second-position clitics are restricted to the past tense, without exception. In Shughni, the only break in the monotony of nominative-accusative alignment is found in the past-tense clitics and only with third-singular arguments. Here, transitive and unergative subjects obligatorily trigger the second-position clitic  $=(y)i$ , while unaccusative subjects behave like objects in triggering no clitic.<sup>12</sup> This pattern is shown in (43)–(45) below (repeated from (1)–(5)). Recall further that non-third-singular subjects of past-tense verbs are *always* co-indexed by a second-position clitic, even when the verb is unaccusative, as is shown with the first-singular subject in (46) ( $=$  (6)).

- (43) 3SG TRANS → CLTC  
 Yā = **yi** khu nān-ard qīwd.  
 she = 3SG her mom-DAT call.PST  
 ‘She called her mom.’

<sup>12</sup> At present, I have not identified any independent diagnostics which distinguish unergative verbs from unaccusative verbs in Shughni, nor are such diagnostics discussed in the literature, as far as I am aware. However, the set of verbs which behave alike in disallowing the 3SG clitic  $=(y)i$  co-referencing their subject are uniformly the kinds of verbs typically considered unaccusative (Perlmutter 1978) – e.g. verbs of directed motion such as *tīdōw* ‘to go’; *yattōw* ‘to come’; and *fīriptōw* ‘to arrive’, as well as non-volitional actions such as *mīdōw* ‘to die’ and *virēxhtōw* ‘to break’. Verbs which call for the 3SG clitic, for their part, are consistently verbs which denote manner of motion or volitional actions – e.g. *zhēxhtōw* ‘to run’ and *nīwdōw* ‘to cry’. Further diagnostics for the unaccusative vs. unergative distinction in Shughni remain a topic for future investigation.

- (44) 3SG UNERG → CLTC  
 Yā = **yi** tar khu chid zhēxht.  
 she = 3SG to her house run.PST  
 ‘She ran to her house.’
- (45) 3SG UNACC → cltc  
 Yā(\* = **yi**) tōyd.  
 she = (3SG.CLTC) go.PST.F  
 ‘She went/left.’
- (46) N3SG UNACC → CLTC  
 Wuz\*( = **um**) tōyd.  
 I = 1SG go.PST.F  
 ‘I went/left’

Tables 7 and 8 display the alignment of non-third-singular arguments and third-singular arguments, respectively.

**Table 7:** Shughni past-tense alignment (non-3SG).

ARG. TYPE	CASE-MARKING	CLITIC?
A	DIR	✓
S <sub>A</sub>	DIR	✓
S <sub>O</sub>	DIR	✓
O	OBL	×

**Table 8:** Shughni past-tense alignment (3SG).

ARG. TYPE	CASE-MARKING	CLITIC?
A	DIR	✓
S <sub>A</sub>	DIR	✓
S <sub>O</sub>	DIR	×
O	OBL	×

As these tables indicate, for all subjects except third-singular, Shughni is accusative with respect to both case-marking and past-tense clitics. In the case of third-singular subjects, the language still shows an accusative pattern with respect to case-marking, but a split-intransitive pattern with respect to the patterning of past-tense clitics. In this regard, the split is found in a domain even smaller than the third-person singular cell of past-tense subjects; it is restricted to only a single grammatical phenomenon (rather than, say, both case and agreement). It appears that Shughni is as close as possible to showing accusative alignment throughout its past tense without fully being there. The subtlety of this pattern can be appreciated in the Table 9, which shows which arguments trigger overt

**Table 9:** Shughni past-tense subjects and overt clitics.

	SING	PLUR
1		
2		
3	TRANS/UNERG	
	UNACC	

clitics. Cells which trigger overt clitics are in gray; note that it is only the third-singular cell which exhibits a split.

The remainder of the section shows that this pattern of vestigial ergativity can be derived – via feature-driven movement of internal arguments – without making recourse to an ergative-assigning  $v^0$ .

#### **4.2 A feature-driven movement account of vestigial ergativity**

This subsection presents an account of past-tense clitics in Shughni which crucially addresses the pattern of vestigial ergativity, as illustrated in (43)–(46). The analysis is presented in three steps; first, Section 4.2.1 argues that Shughni lacks an ergative-assigning  $v^0$ ; Section 4.2.2 then lays out a system of feature-driven movement which captures the pattern of vestigial ergativity; and finally, Section 4.2.3 discusses case assignment in the language.

As mentioned above, the analysis presented here is based on a similar analysis provided by Moghaddam (2016) for the Western Iranian language Davani, and I follow her in making three important assumptions: (i) ergative is an inherent case assigned by  $v^0$  to the argument occupying its specifier (e.g. Legate 2006; 2008; 2017; Woolford 2006; see also Deal 2015 for a discussion of other approaches to ergative case); (ii)  $vP$  constitutes a phase (Chomsky 2000; 2001; 2008); and (iii) subjects of intransitive verbs may be either internal arguments (unaccusative) or external arguments (unergative) (Perlmutter 1978).

##### **4.2.1 Shughni lacks ergative-assigning $v$**

As discussed above, Shughni past-tense clitics display nominative-accusative alignment everywhere except with third-person-singular arguments. Given how restricted this pattern is in the grammar, I see no motivation for positing that the language maintains an ergative-assigning  $v^0$  in its past tense. I therefore make the claim here that Shughni has a fully nominative-accusative system throughout its grammar. That is, the second-position clitics used to co-index the  $\varphi$ -features of past-tense subjects in Shughni are not the result of inherent ergative case assignment; instead, both past-tense clitics and present-tense suffixes in Shughni are the result of a  $\varphi$ -probe on  $T^0$  entering into a syntactic relation with an eligible DP. We will see in Section 5 that Davani shows a similar pattern of split alignment with respect to its past-tense clitics, but according to Moghaddam's (2016) analysis, does indeed maintain an ergative-assigning  $v^0$  in its past tense.

An important feature—and, I believe, advantage—of this account is that it derives a non-canonical (split-intransitive) alignment pattern without recourse to an ergative-assigning  $v^0$ . I take the lack of an ergative-assigning  $v^0$  in Shughni to indicate that it is at a different stage than Davani in the development from ergativity to accusativity. Importantly, vestigial ergativity, under the view advocated here, is not ergativity of the kind found in Davani or Pashto. Rather, this pattern is one which descriptively fulfills the argument-structure property of ergativity (Deal 2015), but is in fact the result of feature-driven DP-movement which operates for all internal arguments except third-singular.

##### **4.2.2 Feature-driven movement in Shughni**

Now, if the pattern of vestigial ergativity in Shughni is not derived via an inherently ergative property within the language's grammar, then how exactly does this phenomenon come about? I propose here that certain internal arguments in Shughni undergo feature-driven movement to the phase edge, a position from which they can be targeted by an Agree relation which results in a second-position clitic matched to their  $\varphi$ -features. Feature-driven movement in Shughni, I argue, is similar in nature to the object shift of



Davani in that a probe on a functional head searches downward for a DP with a certain set of features and that movement only occurs if a viable DP is found. In Section 5 it will be seen that the features which allow internal arguments to move in Davani are [HUMAN], [SPECIFIC], and [HIGHLY AFFECTED], a set of rather common features in the phenomenon of DOM (e.g. Aissen 2003; Naess 2004; Kalin 2018). A viable DP, if found, moves upward in the structure into the domain of the probe.

In Shughni, however, the relevant features are not semantic features such as definiteness, but rather the grammatical features [PLURAL] and [PARTICIPANT].<sup>13</sup> Importantly, an internal argument in Shughni may have either or both of the features [PLURAL] and [PARTICIPANT] to move up, and, hence, it is those which are least marked with respect to person (third-person) and number (singular) which fail to move. The features [PLURAL] and [PARTICIPANT] appear to be a rare combination to modulate feature-driven movement of this kind, but the Shughni pattern is nonetheless in line with the cross-linguistic pattern where arguments which are more marked on a given scale are targeted by the probe and moved.<sup>14</sup> Shughni pronouns and their features are shown in Table 10. Light gray cells represent pronouns which are endowed with one of the two features, while dark gray cells represent those which have both features.

**Table 10:** Shughni pronouns and relevant features.

			[PLUR.]
[PART.]	1	wuz	māsh
	2	tu	tama
	3	yu/yā	wadh

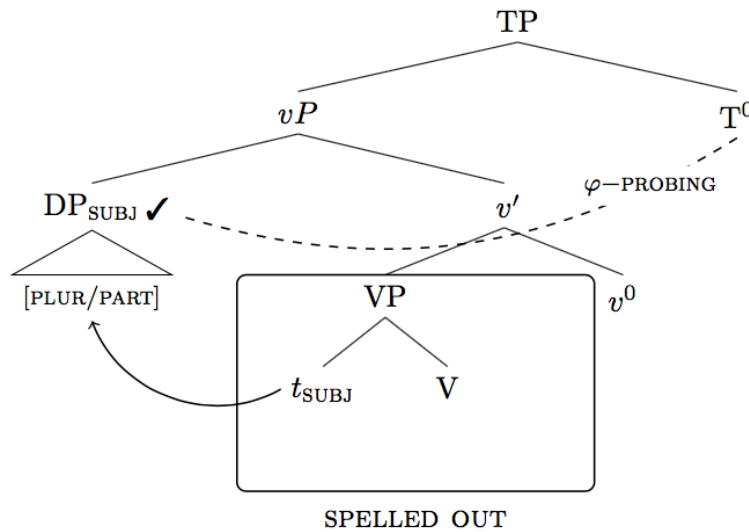
An internal subject with the necessary feature(s) in Shughni moves out of VP to the phase edge, where it becomes visible to a probe on T<sup>0</sup>. The syntactic relation established between the probe and the moved DP triggers a clitic matched to the DP's  $\varphi$ -features, which moves up in the structure and appears in second position at surface structure.<sup>15</sup> This movement and the subsequent syntactic relation between probe and DP is displayed in (47):

<sup>13</sup> This type of movement in Davani occurs presumably for reasons of semantic interpretation – i.e. to escape existential closure – as proposed by Diesing (1992). However, it would be difficult to attribute the movement of Shughni internal arguments to the notion of existential closure or related semantic concepts, and I remain agnostic here as to the precise impetus behind this movement and leave this to future work.

<sup>14</sup> Note further that despite its restricted presence in the language, the split-intransitive pattern is found precisely in the corner of the grammar that we would predict, given what is known about the typology of split-ergativity. Cross-linguistically, in languages which display split-ergativity based on some property (or properties) of the arguments in question, it tends to be the least marked, or arguments lowest on a salience hierarchy, which show the ergative pattern, while the more salient argument types show the accusative pattern (see e.g. Dixon 1972; McGregor 2009). This same pattern holds for the Shughni data, where the split is based not only on person, but also on number.

<sup>15</sup> It is well known that second position is an important position for clitics in Indo-European languages, but even within the Indo-European family there is significant variation with respect both to the types of clitics that appear in this position, and to what counts as second position (see e.g., Anderson 1992; 1993, who builds upon the observations of Wackernagel 1892). A number of authors have provided accounts on this topic for both modern and classical Indo-European languages, with seemingly little consensus on the structural underpinnings of second-position cliticization (see Pancheva 2005: 103–109 for an overview of these studies). Likewise, much work remains to be done regarding the details of the operations by which subject clitics end up in second position in Shughni, and I leave this topic to future research.

(47) Probe finds moved internal subject



Internal arguments in Shughni which lack both of the features [PLURAL] and [PARTICIPANT] – i.e. third-singular internal arguments – do not undergo feature-driven movement.<sup>16</sup> Moreover, I propose here that Shughni has an EPP-requirement on T<sup>0</sup>, but the EPP feature in Shughni does not require that unaccusative subjects – or any subject for that matter – move to Spec,TP. Rather, the EPP feature on T<sup>0</sup> in Shughni simply requires that some constituent, not necessarily the subject, occupy the specifier position of TP.

I take EPP-movement in Shughni to be an instance of topic- or focus-related  $\bar{A}$ -movement and propose further that it is the constituent which has moved to the specifier of TP in Shughni which hosts the past-tense second-position clitics. Movement of this kind is similar to the movement that derives V2 word order in languages like German and Dutch, where the moved element precedes an unaccented finite verb. In Shughni, this movement is needed to provide the host for second-position clitics, including the  $\varphi$ -feature-bearing past-tense clitics. However, while the first element of V2 clauses in Dutch and German is generally taken to occupy the specifier of CP, there is evidence that the first element in the Shughni clause occupies the specifier of TP. This is seen through the fact that in embedded clauses, these clitics must attach to the first constituent following the complementizer, and never to the complementizer itself, as exhibited in examples (48) and (49) below. Here, the second-person singular clitic =t must attach to the first constituent following the complementizer *idi* ‘that’ – as in (48) – and is prohibited from attaching to the *idi* itself – as shown in (49):

(48) Wuz fām-um [idi tu=t nōsh-ēn khūd].  
 I know-1SG.AGR [COMP you=2SG.CLTC apricot-PL ate]  
 ‘I know that you ate the apricots.’

(49) \*Wuz fām-um [idi=t tu nōsh-ēn khūd].  
 I know-1SG.AGR [COMP=2SG.CLTC you apricot-PL ate]

<sup>16</sup> I make no claim here as to whether the features in question are binary or not. That is, I represent the features [PARTICIPANT] and [PLURAL] as privative, but whether they are bivalent or privative does not have an effect on the analysis here.

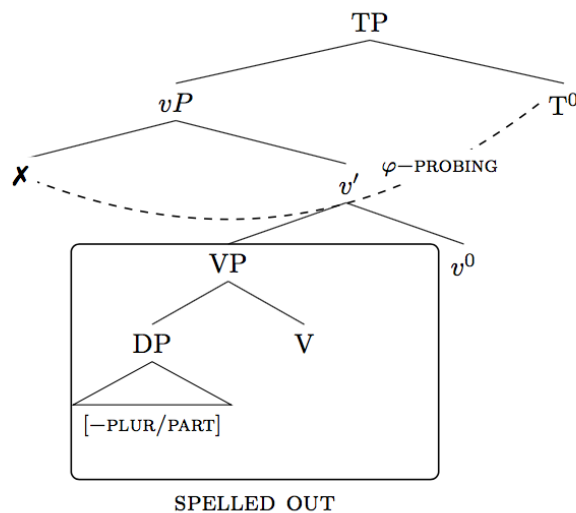
In addition, the existence of (non-pronominal) second-position clitics in non-past tenses suggests that this type of EPP-movement is not restricted to the Shughni past tense. For instance, the second-position clitic =*ta*, which indicates future tense, behaves identically to past-tense clitics in its distribution; that is, it can attach to any type of constituent, including subjects, and as in (50), as well as non-subjects, as in (51), as long as it occurs in second position within TP:

(50) Wuz = **ta** nūr ar chīd s̄a-m.  
 I = FUT.CLTC today to home go.PRS-1SG  
 ‘I will go home today.’

(51) Nūr = **ta** (wuz) ar chīd s̄a-m.  
 today = FUT.CLTC (I) to home go.PRS-1SG  
 ‘I will go home today.’

Internal subjects in Shughni must therefore undergo feature-driven movement to be eligible for agreement, and those lacking the relevant features stay low within the phase and are not found by the probe on  $T^0$ . Furthermore, it is well known that cases where a probe does not find a viable DP do not necessarily cause the derivation to crash. Instead, the derivation may simply proceed as normal, with failed agreement operations often resulting in default morphology occupying the slot where the spell-out normally occurs, and failed clitic-doubling operations often resulting in no morphology at all occupying the clitic slot (Preminger 2009; 2014). Here, I argue that the failure of the probe to find the third-singular internal subject does not cause the derivation to crash; the result is simply the lack of a third-singular clitic = (*y*)*i* co-indexing the internal subject, as was the case in (45). Recall, further, that the lack of any morphology occupying the clitic slot in examples like these was an integral piece of the clitic-doubling analysis presented in Section 3. The structure for such an example is given in (52):

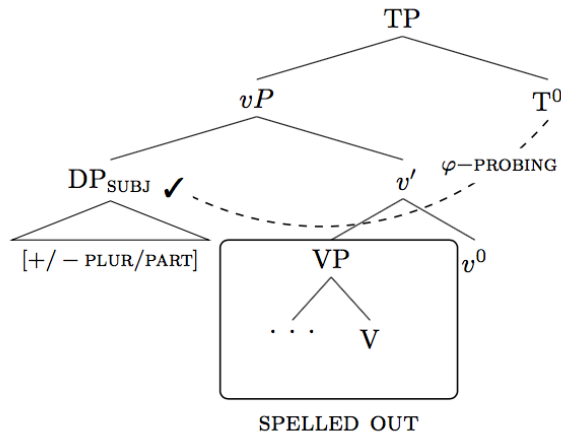
(52) **Probing fails for in-situ unmoved internal subject**



Third-singular subjects of transitive and unergative verbs (i.e.  $A$  and  $S_A$ ) also lack the features necessary for movement, but, crucially, are generated high enough in the structure to be accessible to the probe responsible for the appearance of a second-position clitic. This is shown in the structure in (53), where the external subject in Spec, $vP$  represents the

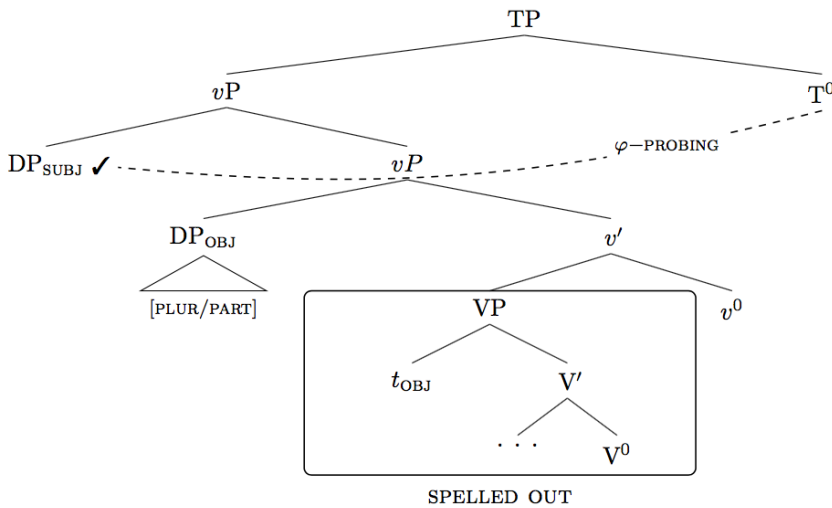
subject of any transitive or unergative verb in Shughni. Here, the probe on T<sup>0</sup> successfully finds the subject, which ultimately results in the appearance of a second-position clitic:

(53) **Probe finds external subject**



Note further that, on the analysis presented here, movement of this kind is not restricted to internal subjects, but occurs for internal objects as well. I follow Moghaddam in proposing that objects which undergo feature-driven movement in Shughni *tuck in* within *vP* (as in Richards 2001), a mechanism which serves to maintain the base order of hierarchical relations. Thus, even after movement and tucking in, internal arguments which undergo movement of the kind in (47) are ultimately still in a position lower than external subjects. The probe on the functional head would therefore still find the external subject before the moved object. This is shown in (54):

(54) **Tucking-in of moved object**



I further posit that the same movement shown above in the past tense also occurs in the present tense. That is, third-singular subjects of unaccusative verbs also fail to move in present-tense constructions. If this analysis is on the right track, then the agreement probe associated with T<sup>0</sup> in the present tense would likewise fail to find a viable DP in the case of third-person singular unaccusative subjects, and the agreement morphemes associated with these subjects are in fact default morphemes. An independent piece of evidence suggesting that the default morpheme is indeed identical to the third-person singular agree-

ment morpheme is that it is used in both weather predicates and clausal predicates, as in (55) and (56), respectively:

- (55) Nūr borün/zhinij dhē-d.  
 today rain/snow hit-3SG.DFLT  
 ‘Today it is raining/snowing.’
- (56) Ar bōzōr sett-ōw mu nervne kixh-t.  
 To market go-INF me nervous make-3SG.DFLT  
 ‘Going to the market makes me nervous.’

Crucially, the reason that even in these cases the suffix slot is filled in the present tense is because it is an agreement morpheme rather than the result of clitic doubling. Of course, it is not uncommon that default agreement morphemes be identical in form to third-person singular morphemes (see e.g., Preminger 2009; 2014, and references therein), and it would therefore be unsurprising if this were the case in Shughni.

#### 4.2.3 Case assignment in Shughni

Finally, one may wonder how case assignment works in Shughni, given that third-singular unaccusative subjects are not in the same syntactic configuration as other subjects. In particular, under a system of inherent case assignment in which case is assigned via a probe-goal relation between a functional head and the DP in its specifier – the approach adopted by Moghaddam for Davani – it is not immediately clear how third-person singular unaccusative subjects in Shughni would be licensed, as they remain within VP while all other subjects are either generated in the specifier of  $\nu$ P ( $A$  and  $S_A$ ), or move to this position (non-3SG  $S_o$ ). One solution would be to adopt a dependent-case approach for both Shughni and Davani. In Shughni, nominative case would be assigned to the highest DP in the structure, regardless of its specific syntactic position (i.e. *default case*; see Baker & Bobaljik 2017 for an overview). In Davani, on the other hand, ergative case would be assigned to the highest of two DPs in the past tense, with the lower of the two receiving nominative case. A similar approach has been used elsewhere in the literature for languages with non-accusative alignment. Ershova (2019), for instance, adopts a dependent-case analysis for the ergative language West Circassian (NW Caucasian), a language which is like Shughni in displaying a direct-oblique distinction. In Ershova’s analysis, a DP is assigned oblique (dependent) case by virtue of being c-commanded by another DP within the case domain of TP. A similar approach could be taken for Shughni.

An alternative solution would be to posit that nominative case in Shughni (and Davani) is the result of the absence of case assignment in the syntax, as argued for by e.g., Kornfilt & Preminger (2015). Case assignment in these languages is a topic for future research, but I see no reason at this point why a similar account based on either dependent case or nominative as the absence of case cannot be applied to both Shughni and Davani.

#### 4.3 Section summary and discussion

To sum up this section, I have presented an account which derives the pattern of past-tense clitics in Shughni, including the phenomenon of vestigial ergativity, without making use of an ergative-assigning  $\nu^0$ . Instead, the lack of a second-position clitic for internal third-singular arguments is explained through feature-driven movement of internal arguments. In Shughni, internal arguments with one or both of the features [PLURAL] and [PARTICIPANT] – that is, all internal arguments which are not third-singular – move to the phase edge, and from here they are viable targets for the  $\varphi$ -probe on  $T^0$  and ultimately

co-indexed by a clitic. Importantly, it is assumed that movement of this kind does not discriminate between internal subjects and objects in either language. Rather, both internal subjects and objects undergo feature-driven movement, but objects are never found by the Agree probe on  $T^0$  because the latter always finds the higher subject first.

Under this analysis of Shughni, as a result of the feature-driven movement described above, third-singular unaccusative subjects occupy a lower position than transitive and unergative subjects. As we will see in the following section, Davani objects with the features [HUMAN], [SPECIFIC], and [HIGHLY AFFECTED] occupy a higher position than objects which do not have these features. Nonetheless, there is no independent evidence at this time to support this distinction, neither in Shughni, nor, to my knowledge, in Davani. Possible diagnostics such as adverb placement do not seem to differ for third-person singular subjects in Shughni, and independent evidence to support the different positions of these arguments is left for further research.

## 5 Feature-driven movement and hybrid alignment in Davani

Having seen how feature-driven movement of internal arguments derives the pattern of past-tense clitics in Shughni, we now turn to a language which shows a similar pattern of split alignment, the Western Iranian language Davani. The discussion of feature-driven movement in Shughni in Section 4 made a number of references to Moghaddam's (2016) work on Davani, and this section shall provide a more thorough look at her description and analysis of the language and will discuss relevant distinctions and correlations with the analysis of Shughni presented in this paper. Here, I lay out the relevant data on the Davani alignment system and summarize Moghaddam's account of the language, in which, like in Shughni, certain internal arguments undergo feature-driven movement to a phase edge where they can be targeted by a probe on  $T^0$ . It will be seen that in Davani, as in Shughni, feature-driven movement nicely captures the split-alignment pattern in the past tense of Davani. However, a crucial difference between the two languages is that despite their striking similarity in alignment, Shughni alignment has developed to such a stage that the language no longer has an ergative-assigning  $v^0$ , while Davani still maintains this feature.

Davani lacks morphological case, and, hence, all clues toward its morphosyntactic alignment come from head-marking on the predicate. Davani, like Shughni, is pro-drop and makes use of both suffixes and morphophonological clitics to index the  $\varphi$ -features of subjects. The paradigms of each are given in Tables 11 and 12.<sup>17,18</sup>

The core of Moghaddam's analysis is that Davani suffixes (Table 11) are the spell-out of an Agree relation between a DP and a probe on  $T^0$ , while second-position clitics (Table 12) are the exponence of  $\varphi$ -features generated via an inherent spec-head relation between  $v$  and the external argument in its specifier. In the Davani present tense, suffixes are used to cross-reference all subjects and no objects; present-tense agreement in the language, just as in Shughni, is strictly nominative-accusative. The past tense is more

<sup>17</sup> Moghaddam labels the paradigms of these clitics and suffixes Set A and Set B, respectively. However, because the discussion here involves multiple languages which have similar series of morphemes, I forgo the use of these arbitrary labels and, for the sake of clarity, maintain the labels *clitic* and *suffix* for Davani as well as Shughni.

<sup>18</sup> A reviewer points out that the Davani clitics are clearly morphologically decomposable into a person component ( $=m$ ,  $=t$ ,  $=j$ , for first, second, and third person, respectively) and a number component (plural  $=u$ ). In this way, they resemble Farsi pronominal clitics, whose person component is phonologically identical to that of the Davani clitics, and whose plural component is  $-ān$ . An interesting puzzle regards the step-by-step derivation of the plural clitics and the mechanisms by which they attain both their number and person components. However, because this puzzle is not addressed by Moghaddam (2016), and because the Shughni past-tense clitics are not morphologically decomposable in this way, I leave it aside in this paper.

**Table 11:** Davani  $\varphi$ -suffixes.

	SINGULAR	PLURAL
1	-ε	-u
2	-ε	-i
3	-t (pres.) / -∅ (past)	-εn

**Table 12:** Davani  $\varphi$ -clitics.

	SINGULAR	PLURAL
1	=m	=mu
2	=t	=tu
3	=f	=fu

complex, however. Past-tense external subjects (A and S<sub>A</sub>) obligatorily trigger a second-position clitic, as in (57) and (58):<sup>19</sup>

(57) *Davani* (Moghaddam 2016: 83)

To=t      una xa.  
 you = 2SG they ate  
 ‘You ate them.’

(58) *Davani* (Moghaddam 2016: 134)

Xænd-æ = **fu**      kε.  
 laugh.PST-a-3PL did  
 ‘They laughed.’

Past-tense unaccusative subjects, on the other hand, trigger the same suffixes used for present-tense agreement, as shown in (59):

(59) *Davani* (Moghaddam 2016: 31)

To    **ʃεð-ε**.  
 You go.PST-2SG  
 ‘You went.’

At this point, we can see that Davani employs a split-intransitive system in its past tense, in that some intransitive subjects behave differently than others with respect to whether they are co-indexed by clitics or suffixes. Davani is like Shughni in that the split-intransitive portion of its grammar is restricted to the past tense; however, it differs from Shughni in that subjects of all person and number combinations are involved, not merely third-singular.

To fully understand the alignment picture in Davani, however, we need to know what happens with past-tense objects. If the language were canonically split-intransitive in its head-marking, we might expect past-tense objects to behave like internal subjects in being co-indexed by verbal suffixes. In reality, however, only some objects in the Davani

<sup>19</sup> Moghaddam analyzes constructions like (58) as transitive, as they are built on the transitive light verb *kε* ‘do’; thus, a literal translation for (58) would be ‘they did laughing’. However, for the purposes of the discussion here I label the subject of this construction as S<sub>A</sub> (unergative). This choice is not crucial, since it is clearly an external subject, whether A or S<sub>A</sub>.

past tense behave in this way; in order to agree with a past-tense verb, an object must be human, specific, and highly affected. The example in (60) exhibits such an instance, where the object *Hasan and Ali* has all three of these necessary features, and is thus co-indexed by the third-person-plural suffix *-en*. Note that the first-person plural subject has been dropped but is evident through the second-position clitic =*mu*:

- (60) *Davani* (Moghaddam 2016: 33)  
 Hæsan-o æli = **mu** zeð-**en**.  
 Hasan-and Ali = 1PL hit.PST-3PL  
 ‘We hit Hasan and Ali.’

*Davani* therefore exhibits a type of DOM, in that only certain objects trigger verbal suffixes bearing their  $\varphi$ -features. Importantly, if any of the aforementioned semantic properties are not present, an object cannot be co-indexed by a verbal suffix. Such an example is seen in (61), where the object *apples* is not human, and thus does not trigger a verbal suffix matched to its  $\varphi$ -features:

- (61) *Davani* (Moghaddam 2016: 64)  
 Sev-gæl-ku-**fu** xa.  
 apple-PL-DEF-3PL eat.PST  
 ‘They ate the apples.’

To account for this data, Moghaddam proposes that past-tense external subjects in *Davani*, like the A in (57) and the  $S_A$  in (58), are assigned ergative case by virtue of being generated in Spec, $\nu$ P, and call for a second-position clitic, which she analyzes as the spell-out of  $\varphi$ -features. In other words, *Davani* has an ergative-assigning  $\nu^0$  in the past tense, in which inherent case assignment to the external subject results in a second-position clitic co-indexing its  $\varphi$ -features. Unaccusative subjects like the one in (59), on the other hand, are not generated in Spec, $\nu$ P and do not receive ergative case. Instead, internal subjects move to Spec,TP in order to fulfill an EPP-requirement, and the same probe on  $T^0$  responsible for this movement is also responsible for suffixal agreement.

Recall that in Shughni, unlike *Davani*, past-tense clitics are not generated through the assignment of ergative case by  $\nu^0$  to the argument in its specifier. Instead, Shughni past-tense clitics are the result of clitic doubling triggered by an Agree relation between a probe on  $T^0$  and the subject DP. Hence, in Shughni and *Davani*  $\varphi$ -feature-bearing second-position clitics in the past are the result of different operations with loci on different heads (i.e.  $\nu^0$  in *Davani* and  $T^0$  in Shughni). While the notion that the same morphology in related languages is generated at different heads in the structure may seem less than intuitive, this can be a natural result of language change over time. Cross-linguistically, it is not unheard of for cognate morphology to be linked to different heads in related languages. For instance, Coon et al. (2014) propose that absolutive morphemes in Mayan languages, which also happen to be the result of clitic doubling of the absolutive DP, can be linked to either  $\text{Infl}^0$  (HIGH-ABS languages) or to a head within  $\nu$ P (LOW-ABS languages), accounting for independent differences in the distribution of ABS morphology in the relevant languages.

A further distinction between the two languages is that while in Shughni, a single head is responsible for both agreement morphemes and doubled clitics, in *Davani* this morphology is realized via two separate heads. That is, in Shughni  $T_{\text{PRS}}$  calls for agreement and  $T_{\text{PST}}$  for clitic doubling, but in *Davani* agreement is linked to  $T^0$  and clitic doubling to  $\nu^0$ . Again, the idea that the same head is responsible for these two operations may seem conceptually



odd. However, this once again makes sense in light of the changes taking place in Shughni during the diachronic development of these morphemes in connection with past-tense alignment. In particular, it is clear that in modern Shughni past-tense clitics are essentially fulfilling the same role as agreement morphemes in the language's grammar, and it appears that diachronically these morphemes have been gradually shifting from clitic doubling to agreement (see e.g., Haig 2008 on the shift of pronominal clitics to affix-like material in Iranian languages). In addition, Shughni has lost its ergative-assigning  $v^0$  in the past tense and these clitics no longer represent ergative case. What seems more intuitive, then, is that as agreement morphemes and doubled clitics in Shughni have converged and continue to converge considerably in their usage, they have also converged with respect to the head responsible for their exponence.

With respect to the quirk whereby only certain objects are indexed by a verbal suffix matched to their  $\phi$ -features, Moghaddam proposes that objects with the semantic features [HUMAN], [SPECIFIC], and [HIGHLY AFFECTED] move up in the structure to the edge of the  $vP$  phase, a position from which they can be targeted by the probe on  $T^0$  – the same probe responsible for suffixal agreement with present-tense subjects and past-tense internal subjects. The Davani alignment pattern is summarized in Table 13; note that shading indicates alignment in each tense by showing the argument types which pattern together with respect to these morphological phenomena.

**Table 13:** Davani past-tense alignment.

ARG. TYPE	Present Tense		Past Tense	
	MORPHEME	SOURCE	MORPHEME	SOURCE
<b>A</b>	SUFFIX	$T^0$	CLITIC	$v^0$
<b>S<sub>A</sub></b>	SUFFIX	$T^0$	CLITIC	$v^0$
<b>S<sub>O</sub></b>	SUFFIX	$T^0$	SUFFIX	$T^0$
<b>O</b>	–	–	SUFFIX	$T^0$

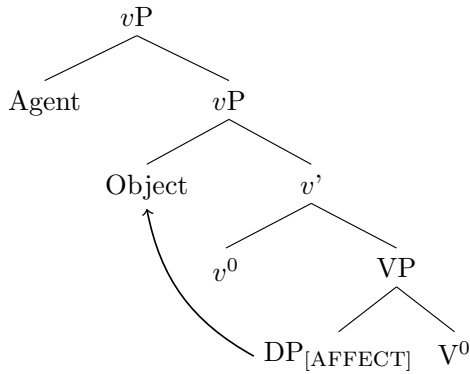
Although not fully spelled out in Moghaddam's analysis, I take feature-driven movement in Davani, like in Shughni, to be triggered by a probe on  $v^0$  which searches downward within VP for a DP with some particular feature(s) – i.e. [PLURAL] or [PARTICIPANT] in Shughni, and [HUMAN], [SPECIFIC], and [HIGHLY AFFECTED] in Davani. In both languages, a viable DP, if found, is moved to the edge of the  $vP$  phase, a position from which it is eligible for further syntactic operations such as agreement. Note further that in cases where an object does not undergo this kind of movement, the features on both the probe and object NP remain unvalued. As explained in the preceding section, I adopt the approach of Preminger (2014) in assuming that a failed agreement relation of this kind is not fatal, and that in both Davani and Shughni the derivation simply continues with these features unvalued.

Furthermore, feature-driven movement, as it occurs in both Davani and Shughni, is to be understood as an instance of object shift, a phenomenon which has been argued to underlie DOM (e.g., Diesing 1992; Bhatt & Anagnostopoulou 1996; Baker & Vinokurova 2010), where the presence of certain semantic features on an object allow it to move higher in the structure to a new domain or phase in which an agreement or clitic-doubling operation can occur. The semantic features which trigger object shift are often related to definiteness or specificity, but may also include focus and topicality, affectedness, and even number (for an overview, see Kramer 2014: 621–622 and Kalin 2018: 113–114, and references cited therein). We saw in Section 4 that internal arguments in Shughni also undergo a type of movement akin to the object shift which occurs in Davani. However,

whereas the features which trigger this movement in Davani are related to animacy, specificity, and affectedness, in Shughni the relevant features are person and number.

Object shift in Davani is schematized below (following Moghaddam 2016, [AFFECT] on a DP is a comprehensive label meant to represent the three features [HUMAN], [SPECIFIC], and [HIGHLY AFFECTED], all of which are necessary for movement to take place):<sup>20</sup>

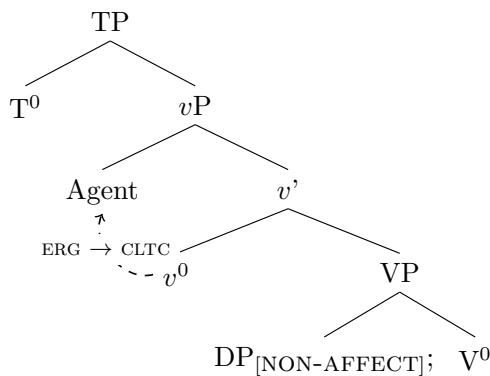
(62) **Feature-driven movement of object out of VP (cf. Moghaddam 2016: 77)**



Importantly, on Moghaddam’s analysis, objects which undergo feature-driven movement of the kind represented in (62) *tuck in* within vP (following Richards 2001). I argued in Section 4 that Shughni internal arguments undergoing feature-driven movement also tuck in, and as such feature-driven movement of this kind never results in the object being higher than the subject in either Shughni or Davani.

In past-tense transitive clauses in which the object lacks any or all of the features [HUMAN], [SPECIFIC], and [HIGHLY AFFECTED], the object stays in VP and is not targeted by the nominative probe on T<sup>0</sup>, and therefore no agreement suffix is spelled out. This was the case in (63), and the derivation for such an example is given in (61). Note that even in the absence of a moved object, v<sup>0</sup> still assigns ergative case to the agent in its specifier:

(63) **Past-tense transitive clause with unmoved object, (cf. Moghaddam 2016: 83)**



To summarize briefly, Moghaddam proposes that v<sup>0</sup> in the past tense of Davani assigns ergative case to external subjects, resulting in the spell-out of a second-position clitic. Unaccusative subjects, for their part, move to Spec,TP to fulfill an EPP-requirement, and the same probe on T<sup>0</sup> responsible for this movement also triggers the spell-out of a verbal suffix as a result of Agree. A subset of objects, namely those which are human, specific, and highly affected, move to the phase edge from where they can be successfully targeted

<sup>20</sup> The tree in (62) has been slightly modified for expository purposes.

by the same probe on  $T^0$ , and these objects are thus co-referenced by the same suffixes as past-tense unaccusative subjects.

The Davani split-intransitive pattern thus resembles vestigial ergativity in Shughni, but the alignment of each language also differs in some noteworthy ways. First, whereas in Shughni this non-accusative pattern is restricted to the third-person singular subjects, in Davani it is found for all person-number combinations. Moreover, Davani unaccusative subjects and certain objects behave alike with respect to overt morphology (i.e. suffixes), but in Shughni it is the *lack of overt morphology* (i.e. lack of co-referencing second-position clitics) which bring together third-singular unaccusative subjects and objects.

Ultimately, however, the same mechanisms of feature-driven movement and tucking-in of internal arguments can be applied in both languages to capture their respective alignment systems. Their differing characteristics with respect to the types of arguments which pattern together are derived by (i) an ergative-assigning  $v^0$  which exists in the past tense of Davani but is absent in Shughni and (ii) the differing features to which the Agree probe on  $T^0$  is relativized in each language (i.e. in Davani [HUMAN] and [SPECIFIC], and [HIGHLY AFFECTED], and in Shughni [PLURAL] and [PARTICIPANT]).

Shughni and Davani are by no means the only languages in the Iranian branch of Indo-European languages which exhibit hybrid alignment systems. A number of languages in the Pamir group – to which Shughni also belongs – exhibit varying types of non-canonical alignment, including the double-oblique system of Rushani, in which subjects of intransitive verbs appear in the direct case, while both transitive subjects and objects appear in the oblique case (see Payne 1980 for an overview of alignment in the Pamir languages). It has been shown in this article that the tool of feature-driven movement can be adapted and used to capture nuances in alignment across two Iranian languages with hybrid systems. I suggest further that this same tool might be applied throughout the Iranian group to deal with the vast array of non-canonical alignment systems. This tool is particularly promising in the Iranian context given that the languages of this group share a common ancestor which originally developed ergative alignment. As such, an intriguing and likely tenable possibility would be to track the relevant changes to the grammar diachronically, an endeavor which should not only show which changes have taken place, but also shed light on what kinds of patterns and restrictions are at play in this development.

## 6 Concluding remarks

In this paper I have addressed two aspects of the morphosyntax of Shughni: the use of second-position clitics to index past-tense subjects'  $\varphi$ -features and the phenomenon of vestigial ergativity. Regarding the former, I looked in detail at the system of past-tense clitics in Shughni with the goal of determining whether these morphemes are the result of agreement or clitic doubling. Previous authors have given only cursory looks at the nature of these morphemes and have generally labelled them as agreement. The objective here, then, was to take the distinction between agreement and clitic doubling seriously, and, as such, I applied a battery of tests developed in recent research—especially Kramer (2014)—to the Shughni past-tense clitics. Although these morphemes are essentially split with respect to the diagnostics, I argued that three of Kramer's diagnostics are in fact not applicable in Shughni. In particular, obligatoriness, relevance of DP features, and interaction with binding relations are not relevant in the case of Shughni because the clitic-doubled arguments are subjects rather than objects. Ultimately, I concluded that the Shughni past-tense clitics are the result of a clitic-doubling operation rather than an agreement relation. It is precisely for this reason that there are instances in the language's past tense, namely for third-singular unaccusative subjects, in which an overt morpheme does not

show up. In the present tense, on the other hand, where verbal suffixes are the result of an agreement relation, there are no cases in which the suffix slot of the verbal template is left empty. In the end, I hope to have shed light not only on the importance of implementing due diligence when distinguishing between clitic doubling and agreement, but also to highlight important distinctions between the clitic doubling of subjects and objects.

With respect to the more specific mechanisms by which these clitics are generated, including the phenomenon of vestigial ergativity, I argued for a feature-driven movement account based in part on a similar account by Moghaddam (2016) for the related language Davani. I provided an analysis of Shughni vestigial ergativity which is built on the same assumptions and theoretical tools as used by Moghaddam, but whereas in Davani the features necessary for movement were [HUMAN], [SPECIFIC], and [HIGHLY AFFECTED], in Shughni the active features are [PARTICIPANT] and [PLURAL]. On this analysis, all internal arguments in Shughni, with the exception of third-person singular internal arguments, move to the phase edge where they can be clitic doubled. Third-singular external subjects, for their part, are base-generated in a position from which they are accessible to a probe. This account therefore derives the pattern whereby all past tense subjects except third-person singular subjects of unaccusative verbs trigger an overt second-position clitic. Crucially, for third-singular subjects there is no overt clitic—or any other overt morpheme—that shows up in the position normally occupied by a clitic.

Much work remains to be done, both with Shughni and with Iranian languages more broadly. In particular, further research is needed to provide independent evidence that all non-third-singular internal arguments move to a position higher in structure, to the exclusion of third-singular internal arguments. It will also be of interest to look for other systematic differences between unaccusative and unergative verbs in Shughni, beyond the relevant distinction here regarding the presence or absence of a third-singular clitic in the past tense. Finally, the modern Iranian languages, many of which are threatened and some of which (e.g. Davani) are in grave danger of disappearing, possess a wealth of knowledge concerning the nature of morphosyntactic alignment and the constraints which shape it both synchronically and diachronically. There is therefore a dire need for further research on a variety of Iranian languages in both the Eastern and Western subgroups. It is my hope that this paper will contribute to these efforts.

## Abbreviations

1 = first person, 2 = second person, 3 = third person, A = agent-like argument of a canonical transitive verb, ABS = absolutive, ADJ = adjective, AGR = agreement, CLTC = clitic, COMP = complementizer, DAT = dative, DEF = definite, DFLT = default, DEM = demonstrative, DIR = direct, DOM = Differential Object Marking, EPP = Extended Projection Principle, ERG = ergative, F = feminine, FUT = future, INF = infinitive, LOC = locative, M = masculine, N3SG = non-third-singular, NEG = negation, NOM = nominative, O = direct object of a canonical transitive verb OBL = oblique, PL = plural, PRF = perfect, PRS = present, PST = past, S = subject of a canonical intransitive verb, S<sub>A</sub> = subject of a canonical unergative verb, S<sub>O</sub> = subject of a canonical unaccusative verb, SG = singular, SFX = suffix, TAM = Tense-Aspect-Mood; TRANS = transitive; UNACC = unaccusative, UNERG = unergative

## Ethics and Consent

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## Competing Interests

The author has no competing interests to declare.

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