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A Symmetric Approach to Agreement in Kurmanji (Northern Kurdish) Direct Arguments

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ABSTRACT

Kurmanji uses two morphological forms of pronouns and R-expressions: direct and oblique. The direct form of first and second pronouns (local pronouns) is fully specified for person and number. In contrast, direct third-person pronouns and R-expressions are unmarked; however, these arguments still exhibit person and number agreement with verbs and number and gender agreement with Ezafe heads. There are two approaches to deal with direct unmarked arguments. In the asymmetric approach, these arguments are assumed to ee fully specified for relevant φ-features, which are deleted at PF (Phonological Form) after agreement, whereas in the symmetric approach, they are merged as underspecified for relevant features and acquire their interpretation via agreement. Given the prevalence of unmarked arguments in Kurmanji, the symmetric approach is more economical and minimalistic, requiring fewer theoretical tools and computations. The present study shows that the key distinction between local pronouns and unmarked arguments lies in the specification of relevant φ-features. Direct unmarked arguments enter the derivation underspecified for these features, establishing a relation of 'subset control' in agreement and acquiring their interpretation by spreading features from the agreeing head at the LF (Logical Form) interface. This study also reveals that agreement in Ezafe constructions and pro-drop sentences also involve subset control and agreement is the only possible way to license φ-features, such as gender in inanimate arguments and person in R-expressions.

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1. Introduction

Considering semantics of φ-features, there is an asymmetry between nouns and verbs. person, number, and gender are features that bear on the interpretation of nouns, but not on the interpretation of verbs. Whether this interpretive asymmetry is reflected in syntax is a question that has been the focus of linguistic studies in generative approaches towards agreement. Many theories of agreement assume that this interpretive asymmetry is reflected in syntax (Chomsky, 2000, 2001; Frampton & Gutmann, 2000; Pesetsky & Torrego, 2007; Bobaljik, 2008b, as cited in Ackema & Neeleman, 2019b). That is, the presence of verbal φ-features or feature values is supposed to be dependent on the presence of identical nominal φ-features or feature values. Other theories of agreement are compatible with the view that there is no syntactic asymmetry between nominal and verbal φ-features. In such theories, the presence of φ-features in the verb does not depend syntactically on the presence of matching φ-features in the agreeing argument (Ackema & Neeleman, 2019b). In the present study we argue that Kurmanji[1] direct arguments can be best explained within a framework of the second type of theories.

There are two morphological forms of arguments in Kurmanji: direct and oblique (s ğndoğdu, 201ğ)ğ The direct third person pronoun and R-expressions, unlike their oblique counterparts, do not have separate forms due to gender and number differences. For example, the interpretation of the pronoun '*ɔæw'*, with the same morphological form, is singular in (1a) but plural in (1b). In fact, the same form is used for both interpretations. Similarly, in (2a), the interpretation of the noun '*hæsp*' (horse) is singular, but it is plural in (2b).

1. a) ææw dı-kæv-æ
   he/she IMPF-fall.PRS-3SG
   nHe/she falls.'
   b) ɔæw dı-kæv-ın
   they IMPF-fall.PRS-PL
   'They fall.'
2. a) h9 sp dı-kæv-æ
   horse IMPF-fall.PRS-3SG
   ıThe horse fallsr'
   b) hæsp dı-kæv-ın
   horse IMPF-fall.PRS-3PL
   'The horses fall.'

While the third person pronoun is used in this way, the first and second singular pronouns are treated differently. Namely, the direct singular local pronouns (1SG and 2SG) cannot be used in identical morphological forms, as shown in (3b).

3. a) ææz hat-ım
   I come.PST.1SG
   'I came.'
   b) ææææz hat-in
   I come.PST.1PL
   WWe camem'

In Ezafe constructions the head noun is in its bare form, but the Ezafe head inflects for number (singular vs. plural) and gender (feminine vs. masculine) of the head noun

1. Kurmanji is one of the main dialects of Kurdish language. This variety of Kurdish is mainly spoken in Turkey, Syria and Urmia and Northern Khorasan provinces in Iran. In this work, by Kurmanji, we mean the variety spoken in Urmia.

(Gğndoğdu, 2023)ğIf the head noun takes no φ-feature marking, the question arises as to how the Ezafe head acquires inflection for number and gender. For example, in (4) the head noun 'penıvis' is in its bare form, but the Ezafe head is inflected for plural; or in (5), the head noun 'penıvis' (pen) is in its bare form and semantically cannot have gender, but the Ezafe head is inflected for feminine gender.

4. penıvis[-en re]]
   pen-EZ.PL black
   'the black pens'
5. penıvis[-a r]]]
   pen-EZ.F.SG black
   'The black pen'

Chomsky (2000, 2001) argues that φ-features of arguments start out valued, while φ-features of verbs are initially unvalued. They acquire a value through the operation of agreement. Frampton and Gutmann (2000) and Pesetsky and Torrego (2007) suggest a subtle adjustment to Chomsky's proposal, namely, that agreement is an operation of feature sharing. However, they continue to assume that verbal . -features have no initial value and acquire one through the sharing operation. Like Chomsky's proposal, this alternative is therefore asymmetric in the sense intended above. Finally, Bobaljik (2008b) treats agreement as the copying of φ-features from an argument to a verbal head, suggesting an even sharper syntactic asymmetry than Chomsky's, i.e., verbal φ-features are not just unvalued initially, but absent. In this framework, the plausible explanation of the Kurmanji data introduced above would be that direct arguments merge with full specification of number and gender in syntax and that these features are copied onto T or the Ezafe head. Then, at PF, the φ-features are deleted in order not to be spelled out in arguments. Therefore, the arguments appear in their bare/direct form. Yet, there is evidence that at least some Kurmanji direct arguments cannot carry φ-features in the first place.

Nevertheless, this is not the only possible approach to agreement. Another possibility is that there is a symmetry between arguments (the controllers), where they are ultimately interpreted, and agreeing heads (the targets), where they are spelled out as verbal inflectional affixes. Ackema and Neeleman (2019b) argue in favor of this line of theories. Their argument is based on a phenomenon referred to as '*subset control*'. Subset controllers are arguments that, on the surface, are specified for fewer φ-features than the verb that agrees with them. Kurmanji direct arguments, specifically third person pronouns and R-expressions, are not marked for number and gender. No study has explored Kurmanji agreement to address the phenomenon outlined above thus far. This study is an attempt to explain Kurmanji direct case morphology and agreement, and it builds on Ackema and Neeleman (2019b)'s theory of syntactic symmetry of agreement, in which φ-features are generated independently in both nouns and verbs independently but interpreted only in nouns.

The paper is organized as follows. Section 2 introduces the theoretical framework adopted for the present study. Section 3 analyzes Kurmanji direct arguments as subset controllers and provides evidence for the symmetry of agreement. Section 4 presents the discussion and conclusion.

2. Theoretical framework

The theoretical framework adopted for this study is Ackema and Neeleman (2019b). Ackema and Neeleman propose a system to account for person, number, and agreement, explaining all the cross-linguistic diversity of pronouns and generalizations about the inventory of person and number and the patterns of syncretism in world languages. In this section, we briefly discuss aspects of their proposal that are related to the present study.

2.1 Person and Number

Ackema and Neeleman (2019b) propose a system of person based on two privative features, DIST and PROX, interpreted as functions operating on an input set to deliver a subset as output. The initial input set for the person system represents all potential referents in a given context. It is a universally structured person space that deliver all theoretically possible persons. There is a feature Π that encodes this input set (S_{i+u+o}) and a dedicated category N_{Π} from which pronouns are projected. The input set structure is shown in (Figure 1).

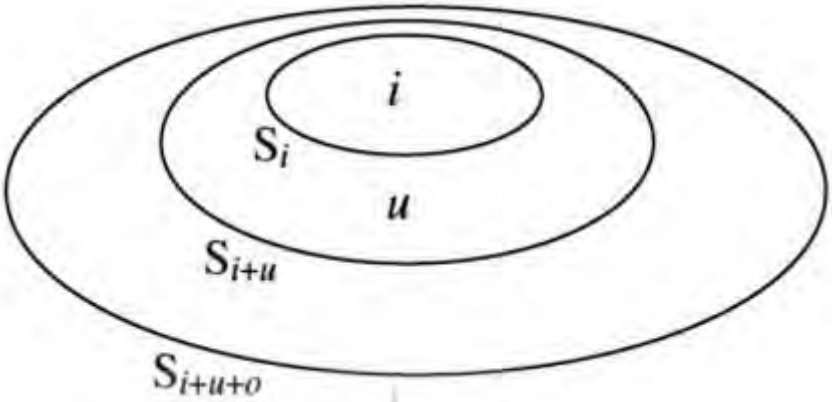
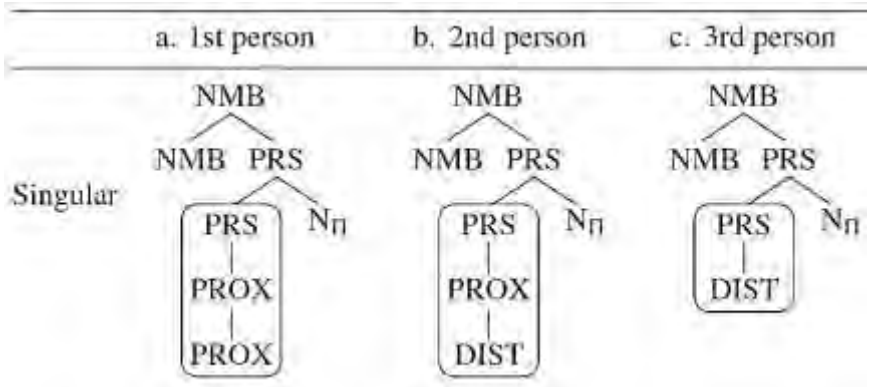


Figure (1). The structure of input set of persons (Acekma & Neeleman, 2019b)

The feature [PROX] introduces a function that operates on the input set and removes its outermost layer. Applied to S_{i+u+o}, it delivers S_{i+u}, which contains 'i' (speaker) and 'u' (addressee). If applied again, it yields S_i, which contains only 'i'. The feature [DIST] introduces a function that selects the outermost layer of its input set. Applied to S_{i+u+o}, it delivers $S_{i+u+o} - S_{i+u}$ which contains only 'o' (others). To deliver a set that contains only 'u', [PROX] is applied first, then [DIST] is applied to the delivered set, and the selected set will only contain 'u'. In this way, all persons are obtained. To determine the cardinality of the sets for a given pronoun, a number node (NMB) is introduced above the structure. This node, encodes a set ℕ/#, which is the host for two number features, [AUG] (plural) and [MIN] (dual). Singular is encoded by the absence of any features in NMB. [AUG] includes all numbers larger than a reference number n_R.

Whether or not [AUG] has access to person information depends on the morphosyntactic structure (conflated or non-conflated) in which it occurs. They refer to systems in which number has access to person information as 'relative' number systems, and to systems in which number does not have such access, as 'absolute' number systems. The type of system is partially revealed by their phonological form: In absolute systems, plural marking is either agglutinative or fusional, but in relative systems, it must be fusional. Thus, the structure for singular and plural persons is represented in (Figure 2).



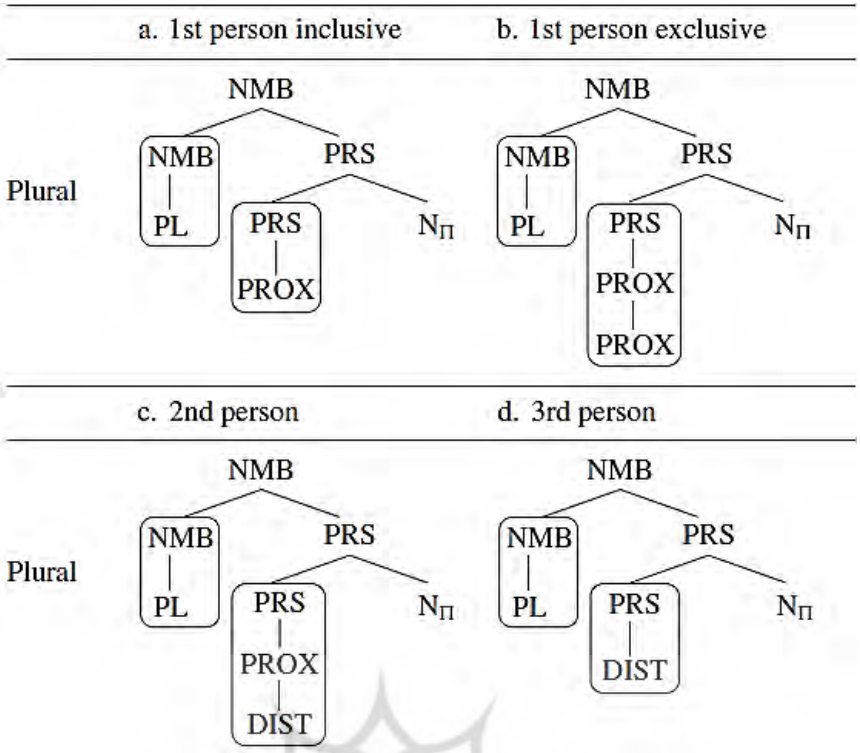


Figure (2). The structure for singular and plural persons (Acekma & Neeleman, 2019b)

2.2 Lack of Person in R-expressions

R-expressions do not deliver S_{i+u+o}; they differ from pronouns in that their head does not have the Π-feature, which introduces this set. Hence, R-expressions cannot be specified for person, nor can they carry a third person feature, although they appear to trigger third person agreement.

There is evidence that R-expressions are not like third person pronouns. Their reference can contain the speaker or the addressee, and a first or a second person pronoun can refer back to an R-expression (6). In fact, they can be coreferential with any pronoun, since their lack of person features means their reference is not determined by them. By contrast, a third person pronoun cannot be the antecedent for a first or a second person pronoun as shown in (7). This follows if third person pronouns are specified as [DIST], while R-expressions are not.

6. Anyone who knows the Dutch realizes we/you/they no longer wear wooden shoes.
7. Anyone who knows them realizes they/*you/*we no longer wear wooden shoes.

The third person is not a "non-person," but is characterized by a specific feature structure. The feature [DIST] in third person pronouns selects a part of the person space that excludes the speaker and the addressee, so coreference with a first person or second person pronoun is impossible.

If R-expressions indeed do not have person features, then they must trigger default person agreement, which necessarily takes the form of third person agreement. This is because [DIST] selects the outer layer in (Figure 1). But given that the only obligatory members of S_{i+u+o} are one speaker and one addressee-contained in the rejected inner layers of (Figure 1)-[DIST] may deliver an empty set.

It is generally assumed that φ-features cannot be interpreted in verbs. This is because features that force a nominal reference are incompatible with verbal semantics. There are two ways to deal with a verb inflected for φ-features. The normal procedure is that the features are identified with features of the agreeing nominal argument. But if there is no such argument, the structure can still be considered as long as the φ-features present in the verb need not be

given any reference at all. The only form that allows this absence of reference is the third person singular (Ackema & Neeleman, 2019b). Finally, it is simply a morphological property of a language whether or not finite verbs carry φ-features.

2.3 Agreement

Ackema and Neeleman (2019b) take agreement to be a two-step process. The first step is the association of the target and the controller, which is governed by locality conditions in syntax. Once the target and controller are associated, several LF processes such as feature spreading and identification and the deletion of uninterpretable features need to take place to produce an interpretable representation. This distinction between the establishment of the syntactic agreement relation and operations on feature content is not new; it goes back at least to Chung (1998) and mirrors the distinction between "matching" and "valuation" in theories of agreement proposed by Chomsky (2000, 2001), Boeckx (2001) and others.

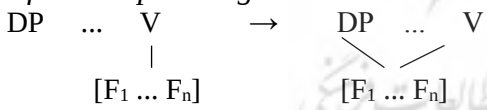
The implementation they adopt is based on the condition in (8), which states that at LF, each occurrence of a φ-feature must be licensed. Licensing is not the same as interpretation, as not every φ-feature has semantic import. For example, in Kurmanji, '*penıvis*'(pen) in example (5) above, is a feminine noun, but it is not feminine in its interpretation. The condition must therefore accommodate φ-features that are inherent in nouns.

8. φ-*feature licensing*

a) At LF, each φ-feature F must be licensed in each position L with which it is associated.
b) F is licensed in L iff
  (i) F is inherent in L's lexical specification or
  (ii) F receives a semantic interpretation in L.

Φ-features can be licensed in nominal, but not verbal, locations. This implies that a verbal φ-feature poses a potential problem that must be dealt with at LF, prior to semantic interpretation occurring. The solution involves two operations. As a first step, the verbal φ-feature spreads to the nominal it is associated with under agreement. Ackema and Neeleman (2019b) use the insights of autosegmental phonology to represent the spread of features.

9. Φ-*feature spreading*

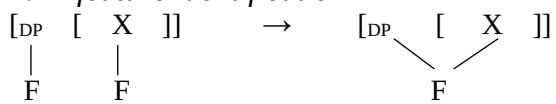


After spreading, a rule of dissociation must apply to remove the link between the verb and the features it hosts, since these features risk violating (8) when associated with a verb.

10. Dissociation

Φ-features are interpreted not on the DP node itself but in specific positions within the nominal extended projection, namely, NMB (NUMBER) and PRS (PERSON). So, the process of φ-feature identification, illustrated in (11) applies under domination. This process identifies features on an XP with matching features within XP. Once a feature on DP is identified with a feature in a position that can be interpreted, the association line between DP and F is removed as an instance of the general process of dissociation.

11. *Φ-feature identification*



The processes of feature spreading, dissociation, and identification operate in the Logical Form (LF) branch of the grammar, and as such, they do not affect the phonological realization of the categories they apply to. If they could, no language could show overt verbal agreement because no feature would remain associated with verbs in the end.

2.4 Unagreement

The Agreement processes outlined above are for normal situations where there is a full match between the φ-features of the verb and the subject. For bsubset control' or situations in which the agreeing argument has fewer φ-features than the verb (unagreement), the syntactic representation is as (12).

12. [DP [X]] … V
| |
[F1] [F1 F2]

Asymmetric theories of agreement cannot capture representations like (12). This is because they are based on the assumption that φ-features in the verb must reflect the presence of identical φ-features in the agreeing argument. In (12), the F_2 feature present in the verb would be illicit, as there is no corresponding feature in the argument. In contrast, a theory of agreement that adopts a morphosyntactic symmetry between the features in the controller and target can easily deal with subset controllers.

The interpretation of φ-features on the DP node is impossible because the features in question rely for their interpretation on a specific input set: S_{i+u+o} for person features and ℕ for number. These sets are introduced in specific heads lower in the DP and are absent in the top node. Ackema and Neeleman (2019b) assume that some languages allow the generation of the features Π and #, which encode the relevant input sets (S_{i+u+o} and ℕ), in a finite verb's inflection, alongside the standard verbal φ-features. These features spread to DP under agreement, so, the interpretation of a person or number feature on DP is possible even in cases where it is not identified with a feature lower in DP. This is what happens in languages showing subset controllers in agreement.

The interpretation of the extra φ-features on the DP node is connected to the interpretation of the DP as a whole with the rule (13):

13. Let N^{MAX} be the top node of an extended nominal projection. Let S_{INT} be a set built up compositionally within N^{MAX}. Let S_{EXT} be a set encoded in N^{MAX} but not built up compositionally within N^{MAX}. Then, S_{INT} and S_{EXT} must be taken to be identical.

The range of interpretive effects that can result from subset control is quite limited. The rule will fail to deliver an interpretable result if the features within the DP deliver a set that is inherently different from the set delivered by the features that are spread to the DP.

There are several situations in which these sets are incompatible. One situation arises when the φ-features inside the DP and the φ-features acquired by the DP deliver sets with clashing identities, especially when they encode a different part of the person space. Another such situation arises as a result of the workings of Maximal Encoding. This principle has the effect that the absence of a feature in a given structure triggers an interpretive effect if the language also has other available structures that include that feature. In particular, in such circumstances, the absence of a feature is interpreted as the negation of that feature. So, in a language that has [AUG] in its feature inventory, the absence of [AUG] in the NMB node of a DP implies that this DP must be interpreted as singular. But that, in turn, implies that spreading [AUG] to this DP will not yield an interpretable result.

The proposal makes an important prediction. The agreeing DP in relations of subset control is poorer in syntactic feature content than the verbal head it agrees with. Therefore, agreement

phenomena internal to the DP that reflect the relevant verbal features are not expected.

2.5 Pro-Drop as Subset Control

There are two approaches to agreement-related pro-drop. The first is based on the idea that agreement is syntactically asymmetric, such that any feature in the verb must have a counterpart in the subject. On this view, there must be an empty subject pronoun specified for the relevant features. The second view is that the agreement ending on the verb itself serves as the subject argument, and that there is no structural subject present. This approach neatly solves the problem of arbitrariness, but it requires a more elaborate theory of subject positions that allows assignment of a θ-role to either inflection or a DP subject (Ackema et al., 2006a, Ackema & Neeleman, 2019b).

The parameter proposed by Ackema and Neeleman (2019b) makes a third option available: in this approach there is a single empty element in subject position, specified as nominal but lacking additional features. Pro-drop can then be seen as the most extreme case of subset control, where the entire feature content of the subject, apart from its nominal nature, originates in the verb and is transferred to the subject at LF. The result of such spreading will only be interpretable if Π and # are included in the information transferred. Otherwise, there is no input set for the person and number features to operate on. If a language allows spreading of Π and # along with the person and number features, interpretation can proceed on the basis of the rule in (13). In this case, S_{INT} is not subject to any lexical restrictions, as the element in subject position is radically underspecified and therefore has no inherent semantics. Consequently, identification of S_{INT} and S_{EXT}, which is the set encoded by the φ-features, yields a set that is indistinguishable from S_{EXT}. This means that the interpretation of the subject is identical to that of a regular pronoun with the same φ-features as the verb. This parameter, which is relevant to the availability of unagreement, also determines whether a language allows agreement-related pro-drop.

3. Kurmanji Direct Arguments

3.1 Direct Pronouns

There are two sets of pronouns in Kurmanji: direct and oblique. Direct pronouns are used in the subject position of intransitive and non-past transitive clauses as well as object position of past transitive clauses known as ergative-absolutive constructions. The morphological form of first- and second-person singular pronouns differs from that of plural pronouns, but this difference is not one of simply adding a plural suffix to their singular counterparts. In other words, the plural feature is not added to the root of the pronoun in an agglutinative manner. This means that the NMB node is fused with the PRS node in these pronouns. Furthermore, the direct form of the third-pronoun remains the same for both singular and plural interpretations and, in this case as well, there is no plural suffix added to the singular pronoun to form the plural pronoun. Additionally, there is no change in the form of the pronoun to indicate that the number node has fused with the person node (Table 1).

Table (1). Kurmanji personal pronouns (Research data)

	Singular			Plural		
	1SG	2SG	3SG	1PL	2PL	3PL
Direct pronouns	ææz	tu	ii_w	mm	hun	ææw
Oblique pronouns	mın	tæ	wi/we	mæ	wæ	wan

While the same form of the third person pronoun is used for both singular and plural, the singular form of local (first- and second-person) pronouns cannot be used for plural interpretation in the same way. This is illustrated in examples (14) and (15).

14. a) ææw dı-kæv-æ
he/she IMPF-fall.PRS-3SG
ıHe/she falls.'

b) ææw dɪ-kæv-ɪn
they IMPF-fall.PRS-PL
'They falle'

15. a) ss z hat-dm
I come.PST.1SG
rI camea'

b) sss z hat-in
I come.PST.1PL
WWe came.'

This difference between local persons and third person can be explained in terms of their syntactic structures. We propose that direct local pronouns have NMB node in their structures but direct third person pronoun lacks it and functions as 'subset controller' in agreement. In other words, local pronouns are specified for number fused with person node as proposed by Atlamaz and Baker (2018) but third person pronoun is unspecified for it. As a result, direct local singular pronouns have their singular specification with them and cannot take plural interpretation during agreement, as they are already specified for number. By contrast, the direct form of the third pronoun is not singular or plural. Rather, it receives singular or plural interpretations via agreement at LF through the spreading of # for singular and [#-AUG] for plural interpretations. This means that the third person pronoun is a real instance of subset controller.

To begin, we analyze agreement with direct local pronouns which are specified for number. Then, we explain agreement in third-person pronoun, which is underspecified for number and functions as a subset controller in agreement. In (16), the subject is a first-person plural pronoun. This pronoun is specified for person features [π-PROX-PROX] and number feature [#-AUG].

16. ææm hat-ɪn
we.DIR come.PST.PL
WWe came.'

As discussed above, we consider agreement to be a syntactically symmetric phenomenon in which φ-features are introduced into the derivation by both the target and the controller (in this case, the subject). In this example, we assume that the same features are also generated in the target, which is generally identified as T, occupying the head position of TP in Kurmanji (Akkuş, 2020; Atlamaz & Baker, 2016, 2018). The controller subject occupies the specifier position of the T head and c-commands the target. The target introduces a selectional requirement, which is copied upward and is satisfied by the direct pronoun. In this way, the first step of agreement is initiated and established in syntax under a c-command configuration. The second step occurs at the LF interface, where feature spreading and interpretation take place. Importantly, this step has no effect on the phonological realization of the agreeing constituents. The structure presented to the LF interface is shown in (17a).

17 a) [DP /NM// PRS ʔæm]] ... T — Input
| |
ππ-PROX-PROX, #-AUG] ππ-PROX-PROX, #-AUG]
ππ-PROX-PROX, #-AUG]
|

b) [DP [PRS ææm] ... T — feature spreading from T to DP
ππ-PROX-PROX, #-AUG]
ππ-PROX-PROX, #-AUG]
|

c) [DP [NMB/PRS ææm] ... T — dissociation in T
|
ππ-PROX-PROX, #-AUG]

In (17b) φ-features spread from T to DP and in (17c) the association lines are eliminated in T, where they cannot be interpreted but remain in DP for the next step, which is the identification of the features with their counterparts in the pronoun. As the two sets are identical, the identification process encounters no problem, and all the features are interpreted successfully.

However, the process of LF agreement is somewhat different for third-person pronoun because, unlike local pronouns, this form is underspecified for number, being identical for both singular and plural interpretations. One may wonder, where this divergence in syntactic and morphological behavior between local and third-person pronouns originates. According to WALS (The World Atlas of Language Structures) database, of the 225 languages studied, 125 exhibit either identical or derivationally related forms for third-person pronouns and demonstratives. In Kurmanji, the third-person pronoun and the remote demonstrative pronoun share the same form and etymological origin. The remote demonstrative pronoun lacks person specification, behaving similarly to personal pronouns and R-expressions concerning their direct form in agreement. There is a semantic connection between third-person and demonstrative pronouns, as both express non-local or distal reference. Therefore, we assume that the Kurmanji third-person pronoun does not encode person inherently but instead gains its person specification through agreement mechanisms.

With these structural differences in place, the illustration of the LF step in agreement for (14) is shown in (18).

18

a) [DP [PRS æw]] ... T — Input

пп-DIST] [#-AUG, п-DIST]

b) пп-DIST] — feature spreading from T to DP

[DP [PRS æw]] ... T

[#-AUG, п-DIST]

c) [п-DIST] — dissociation in T

[DP [PRS æw]] ... T

[#-AUG, п-DIST]

In (18a), the verb introduces [#-AUG, п-DIST] to the structure, and the pronoun, shown as DP, is only specified for person пп-DIST] but not for number. The morphological evidence from these elements also indicates that the subject lacks a number feature and should be considered as an example of subset control. Here, the T head has generated features that cannot be interpreted within itself. As φ-features can only be licensed in nominals but not verbals, verbal φ-features create interpretive challenges that must be resolved at LF before semantic interpretation. In (18b), the φ-features on T spread to the DP under agreement. In (18c), a rule of dissociation removes the link between the verb and the features it hosts. In (18c), the features that spread to DP must be licensed in their proper location. However, there is a problem when attempting to identify a feature absent in the pronoun's specification. Therefore, the rule in (13) resolves this issue by unifying and equating the two sets, leading to reference to a set of more than one o's in (19), and the pronoun is interpreted as plural.

19. [#-AUп, п -DIST+ +[п-DIST] → ##-AUп, п -DIST]

For singular interpretation, the input set, #, in the target spreads to the controller without [AUG] feature. If we consider the input pronoun as having singular interpretation inherently within it, the unification of the two sets will encounter a conflict because a number feature

cannot spread to DPs that are already specified for a feature or lack one with semantic effect, as discussed in Ackema and Neeleman (2019b). Thus, subset control is only available for the third-person pronoun, which completely lacks a number node. If it contained the number node without any feature to encode the cardinality of the person set, the number system in the language would interpret it as singular, and the LF spreading of [AUG] would be impossible, as is the case with other singular pronouns, namely, first and second singular pronouns.

In example (3b), repeated as (20), the first singular pronoun is used with a plural suffix in the same way as the third pronoun, but the result is unacceptable. This is because the first-person pronoun is already specified for number, and adding another number value to it via spreading at LF is impossible. Therefore, the plural interpretation of the first singular pronoun cannot be achieved through the LF process of agreement.

20. æææz hat-in
I come.PST.1PL
WWe came.'

With regard to these considerations the syntactic structure of φ-features in Kurmanji local pronouns and third pronoun is illustrated in (Figure 3a-e).

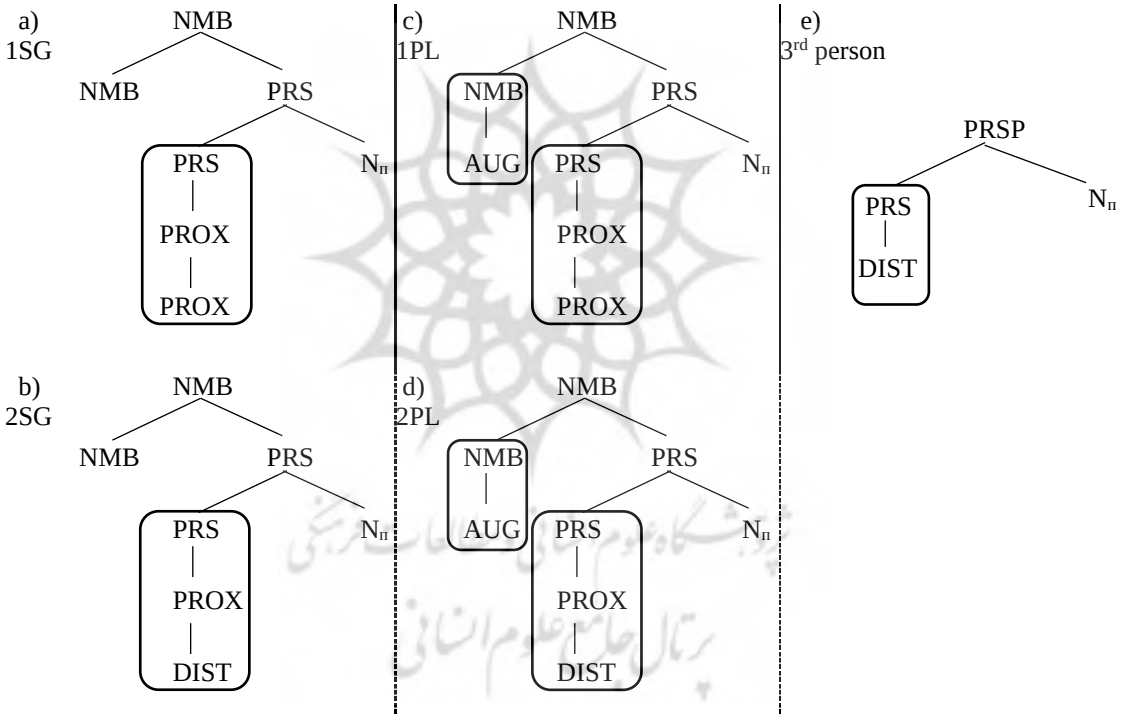


Figure (3). The syntactic structure of φ-features in Kurmanji (Research finding)

As it can be seen in (0Figure 3), the difference between the singular form of local pronouns and the third singular pronoun in an example like (14a) is that the singular local pronouns have an NMB node containing a set, #, as the input for number in their structure. This set is not specified for any feature that determines the cardinality of the person set, but we know that the mere presence of the NMB head in the structure is interpreted as singular in a singular-plural number system. There is, indeed, evidence that plural is marked and singular is unmarked. First, Green5erg (1933) observes that 8there is no language in which the plural does not have some non-zero allomorph whereas there are languages in which the singular is expressed only by zero" (p. 94). Second, plural is both a target for morphological impoverishment rules and a context that triggers such rules. This behavior is typical of marked features (Ackema & Neeleman, 2019b). Therefore, the absence of the [AUG] feature in the NMB node has a semantic effect and is interpreted as singular in local pronouns. By contrast, the third person

pronoun lacks NMB shell entirely. That explains why the direct third person pronoun cannot be interpreted even as singular outside an agreement relation. It receives its singular/plural interpretation only via agreement through the spreading of number features at LF.

3.2 Direct R-expressions

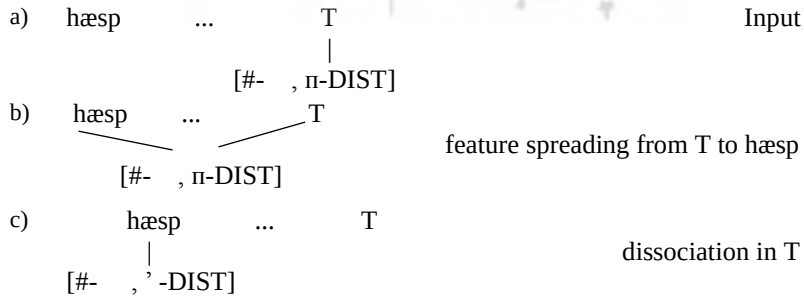
3.2.1 *R-expressions in Verbal Agreement*

Comparable to pronouns, there are also two morphological forms of R-expressions: a direct form and an oblique form. The direct form is unmarked, lacking any suffix denoting number or gender, whereas the oblique form is specified for both number and gender. The oblique form is further characterized by a case shell that blocks agreement from accessing its features (Bittner & Hale, 1996; Lamontagne & Travis, 1986; and many others as cited in Atlamaz & Baker, 2018 and Ackema & Neeleman, 2019b). Therefore, agreement with R-expressions in the oblique form results in default values: third-person singular. As with the direct form, however, the same bare form is used for both singular and plural interpretations. The question is while the direct form of an R-expression is a bare noun unspecified for φ-features (number and gender), how is it interpreted as singular or plural? We argue that, similar to the third-person pronoun, R-expressions acquire their interpretation via the spreading of φ-features at LF. So, R-expressions, like third-person pronouns, exhibit a relation of subset control in direct form and are underspecified compared to the verbs they agree with. Consider (21), in which the subject is a bare noun with no information about number, but the verb is inflected for singular in (a) and plural in (b).

21. a) hφsp dı-kæv-æ
horse IMPF-fall.PRS-3SG
ıThe horse falls.'
b) hæsp dı-kæv-ın
horse IMPF-fall.PRS-3PL
'The horses fall.'

R-expressions cannot contain person information because they do not carry the Π-feature, which introduces the input set on which person features operate. However, the verb in (21a) is specified as [Π–DIST], which is the third-person feature. This feature is not inherent to the noun and, therefore, must be licensed through agreement. Since R-expressions lack person features, they trigger default person agreement. Default person necessarily takes the form of third-person agreement because, as discussed in Ackema and Neeleman (2019a), this is the only person layer capable of delivering an empty set. This layer does not require any specific reference. The LF representation of (21a) is shown in (22).

22.



In (21b) the inflection suffix denotes only the plural number feature [AUG]. However, the [DIST] feature is also generated in T. Following the agreement process, the [DIST] feature is deleted in PF by impoverishment rules. These rules are outlined in (23), which specifically delete person features in the presence of [AUG].

23. a) PROX / / / T -[__ AUG]
    b) DIST Ø Ø Ø T[__ AUG]

This same rule is responsible for the syncretism in the verbal inflection of plural pronouns as well. In Kurmanji, the verbal inflection for all plural pronouns is '-ın.' However, this does not imply that the verb generates only the number feature. Such an interpretation would violate Maximal Encoding, which requires that person features be present whenever they can be licensed. Example (24) illustrates the syncretism of verbal inflections across all three plural persons.

24. æɐm/hunʔʔʔ w hat-ın
    we/you.PL/3rd.DIR come.PST-PL
    'We/you/they came.'

What triggers the syncretism in (24) is the fact that Kurmanji has only one slot for insertion of features in the verb. This restriction leaves two possibilities for realizing verbal φ-features. Either only one feature from number/person features must be realized, or they must fuse before insertion and realize with one morpheme. In (24) the first option has been adopted but in Kurmanji the second option is available too. In a variety of Kurmanji in Urmia, the verbal inflection for first person plural is '-in' in (25) which is different from other plural persons' inflection, '-ın'.

25. æɐm hat-in
    we come.PST-1PL
    WWe came'

This example shows that plural pronouns do not agree only for number, as claimed by ğğndoğdu (2017), but they agree for person too. However, because of the constraint of a single morphological slot available for verbal inflection, the person features are impoverished at PF.

3.2.2 ***Agreement within a subset controller***

As the agreeing DP in relations of subset control is genuinely poorer in syntactic feature content than the verbal head it agrees with, agreement phenomena internal to the DP that reflect the relevant verbal feature are not expected. This prediction is stated by Ackema and Neeleman (2019b) in (26).

26. If F is generated on the target only, agreement within the controller will not be for F.

This prediction holds for Kurmanji direct arguments too. In Kurmanji oblique DPs, the demonstrative adjectives generally concord with the noun they modify. For example, the ergative subject in (27) is plural, so the demonstrative adjective form is plural too. Here, as the DP is specified for number, the relevant feature is present for the demonstrative adjective as well. However, since a direct R-expression is not specified for number, we do not expect the demonstrative adjective to appear in its plural form. In (28), the noun 'hæsp' (horse), as the subject of a present transitive sentence, is direct and therefore unspecified for number. Consequently, the demonstrative adjective that modifies it cannot take the plural form. The whole expression receives its plural interpretation at LF, without morphological changes. Since feature spreading is an LF process, features acquired through this rule will not affect the surface form.

27. [v-an hæsp-an] sev-æk xwar
    these-PL horse-PL apple-INDF eat.PST.3SG
    'These horses ate an apple.'
28. ... v hæspæ sev-e di-xw-æn
    this.DIR horse.DIR apple-F.OBL IMPF-eat.PRS-PL
    'These horses eat the apple.'

3.2.3 *R-expressions in Ezafe constructions*

The spreading of φ-features is not limited to number in verbal agreement. In Ezafe constructions, a prevalent phenomenon in Iranian languages used for a wide range of functions (Haig, 2011), the c-commanding head noun controls agreement with Ezafe (EZ) as an inflectional/agreement head (Franco et al., 2014, 2015). Direct pronouns are inherently unspecified for gender; however, in Ezafe constructions, the Ezafe head, as shown in (29), is inflected for gender according to the gender of the pronoun's reference that c-commands it.

29. ææz-[e fæqir]
I-EZ.M.SG poor
'I, the poor one'

If the pronoun could be argued to carry a gender feature that has no phonological reflex, this would introduce unwarranted redundancy in the Kurmanji lexicon: one must assume that the language has two first-person singular pronouns, one masculine and the other feminine, which happen to be homophonous. Since this point holds not just for this particular case but for numerous comparable cases in the language, the result would be massive redundancy. This redundancy is avoided, however, if the agreement relation is one of unification, as unification allows the "transfer" of the feature of the predicate to the subject. Thus, Kurmanji only needs one first-person singular pronoun, which is unspecified for gender. This is true for other singular pronouns as well as for inanimate R-expressions like (30), for which gender is semantically irrelevant. In these cases, in which the head noun is an inanimate thing, gender cannot be interpreted semantically on the head noun and is only licensed via agreement. Thus, here, gender, in Acquaviva (2020)'s terms, is a matter of syntax rather than the lexicon.

30. a) penıvis-a rʃʃ
pencil-EZ.F.SG black
'The black pencil'
b) æær-e gıran
war-M.SG heavy
'the heavy war'

The subject of the Ezafe in direct form, cannot also be specified for number when it is an R-expression or a third-person pronoun. Therefore, just as in verbal agreement, the singular/plural interpretation of the head noun in an example like (31) is acquired via the spreading of the [#-AUG] feature at LF.

31. hæsp[-en re]]
horse-EZ.PL black
'the black horses'

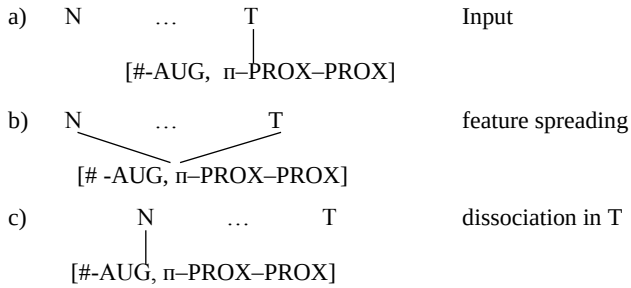
3.3 Pro-drop in Kurmanji

All languages that are reported to have unagreement allow pro-drop. In Kurmanji, pro-drop is available only in clauses that have a direct subject, which include intransitive and non-past transitive clauses. Ergative-absolutive and double oblique constructions, which mark their subjects with oblique case, do not allow pro-drop. This means that the two phenomena are related, and wherever a direct subject is allowed, pro-drop is allowed. In the same way as a direct third-person pronoun and R-expressions, we take pro-drop to be the most extreme case of subset control and analyze it as a null N, unspecified for φ-features of person, number, and gender. Pro-drop involves only person and number features in Kurmanji because verbal agreement is only for person and number in this language. So, in our analysis of pro-drop, we take "pro" to be a direct null N, with no φ-feature. The underspecified N acquires the features via spreading from the T head at LF. Thus, in (32), the input set of features in T contains [#-AUG] and [π-PROX-PROX],

which are realized as the verbal inflection '-in', (1PL suffix). The structure presented to the LF interface is (33a). Feature spreading results in (33b), and dissociation in T occurs in (33c).

32. hat-in
come.PST.1PL
WWe came.'

33.



As it can be seen from (33), the result of such spreading will only be interpretable if π and # are included in the information transferred. Otherwise, there is no input set for the person and number features to operate on. After the spreading of features from T to N, since S_{INT} is not subject to any lexical restrictions and is radically underspecified, the identification of S_{INT} and S_{EXT}, which is the set encoded by the φ-features, yields a set that is indistinguishable from S_{EXT}. In other words, the interpretation of the subject is identical to that of a regular pronoun with the same φ-features, i.e., ææm' (we).

4. Summary and Conclusion

Kurmanji direct arguments can be divided into two types: the first- and second-person pronouns (local pronouns in Atlamaz & Baker (2016, 2018) and Akkuş (2020)'s term) and the third-person pronoun along with R-expressions. The first type is fully specified for person and number features. These pronouns have an absolute number system in which the number node has access to person information. However, in these pronouns the person and number heads are fused with the root of the pronoun and all realize with one morpheme. The singular local pronouns also have a number node, though there is no specific feature to encode it, and the singular interpretation is obtained in the absence of any feature on the number set # in NMB. As this absence has semantic effects, singular local pronouns cannot be used in a relation of 'subset control' compared to the third-person pronoun and R-expressions.

Kurmanji direct third-person pronoun, which has the same form and origin as the remote demonstrative pronoun, has only one form for both singular and plural number. This means that the pronoun, unlike its oblique singular and plural counterparts, is unspecified for number and gender. Namely, there is no NMB (NUMBER) or GND (GENDER) layer in the structure of the pronoun. This is important because if there were an NMB layer, even with no feature, the pronoun would be interpreted as singular and could not be used as a bsubset controller' that is, by definition, less specified than the agreeing T head in an agreement relation. As a pronoun, the third-person pronoun must be specified for person because it has referential properties. Compared to the direct third-person pronoun, direct R-expressions are underspecified for number and gender too. Needless to say, R-expressions lack referential properties, and the person feature is irrelevant. Nevertheless, the verb shows the third-person inflection in agreement with R-expressions. This is because [DIST], which selects the outermost layer of the person space structure, renders a set with no obligatory member and can deliver an empty set that is licensed via interpretation at LF with no referential sense.

Direct R-expressions and pronouns are underspecified for gender too, yet the Ezafe (EZ) head is inflected for gender even in cases where the gender is quite unrelated. At least for inanimate things, R-expressions are not specified for gender even semantically. This means that

gender is only licensed through agreement and is a matter of syntax rather than the lexicon. If we assume that every pronoun or R-expression carries its gender specification with it, with no phonological reflex, it will introduce massive redundancy in the Kurmanji lexicon: one must assume that the language has two sets of pronouns and R-expressions, one masculine and the other feminine, which happen to be homophonous. But, this is avoided if the agreement relation is one of unification, as unification allows the "transfer" of the feature of the predicate to the subject. Pro-drop in Kurmanji, which is available only in clauses with a direct subject, is also assumed to be a radical case of 'subset control' in which a null N, unspecified for φ-features, acquires its relevant features via spreading from T in an agreement relation.

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Not applicable

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Conflict of interest

The authors declare no conflict of interest.

References

Ackema, P., & Neeleman, A. (2019a). Default person versus default number in agreement. In L. Franco, M. M. M., & M. Reeve (Eds.), *Agreement, Case and Locality in the Nominal and Verbal Domains* (pp. 21-54). (Open Generative Syntax). Language Science Press.

Ackema, P., & Neeleman, A. (2019b). *Features of person: From the inventory of persons to their morphological realization*. London, England: The MIT Press.

Ackema, P., et al. (2006a). *Arguments and agreement*. Oxford: Oxford University Press.

Acquaviva, P. (2020). Gender as a property of words and as a property of structures. In *Gender and Number in the Nominal Domain* (Vol. 19, pp. 49-74). Catalan Journal of Linguistics.

Akkuş, F. (2020). On Iranian case and agreement. *Natural Language and Linguist Theory*, 38, 671-727.

Atlamaz, Ü., & Baker, M. (2016). Agreement with and past oblique subjects: New considerations from Kurmanji. In C. Kimmerly, & B. Prickett (Eds.), *Proceedings of NELS 46* (pp. 39-49). GLSA.

Atlamaz, Ü., & Baker, M. (2018). On partial agreement and oblique case. *Syntax*, *21*(3), 195-237.

Bobaljik, J. D. (2008b). Where's phi? Agreement as a postsyntactic operation. In D. Harbour, D. Adger & S. Bejar (Eds.), *Phi Theory: Phi-Features Across Modules and Interfaces* (pp. 295-328). Oxford: Oxford University Press.

Chomsky, N. (2000). Minimalist inquiries: The framework. In R. Martin, D. Michaels & J. Uriagereka (Eds.), *Step by Step: Essays on Minimalist Syntax in Honor of Howard Lasnik* (pp. 89–155). Cambridge, MA: MIT Press.

Chomsky, N. (2001). Derivation by phase. In M. Kenstowicz (Ed.), *Ken Hale: A Life in Language* (pp. 1-52). Cambridge, MA: MIT Press.

Frampton, J., & S. Gutmann (2000). *Agreement is feature sharing*. Ms, Northeastern University

Franco, L., Manzini, R., & Savoia, L. (2014). Linkers are not 'possession markers' (but 'agreements'). *Proceedings of the Olomouc Linguistics Colloquium* (pp. 233-251).

Franco, L., Manzini, R., & Savoia, L. (2015). Linkers and agreement. *The Linguistic Review*, 32 (2), 277-332.

Greenberg, J. (1963). Some universals of grammar with particular reference to the order of meaningful elements. In J. Greenberg (Ed.), *Universals of Human Language* (pp. 58-90). Cambridge, MA: MIT Press.

Gündoğdu, S. (2017). Variation in the ergative pattern of Kurmanji. *Wiener Jahrbuch Für Kürdische Studien 5, 45-62*

Gündoğdu, S. (2023). Ezafe in Northern Kurdish. *Toronto Working Papers in Linguistics*, 45.

Haig, G. (2011). Linker, relativizer, nominalizer, tense-particle: On the Ezafe in West Iranian. *Nominalization in Asian Languages: Diachronic and Typological Perspectives*, *96*, 363-390.

Pesetsky, D., & Torrego, E. (2007). The syntax of valuation and the interpretability of features. In S. Karimi, V. Samiian & W. K. Wilkins (Eds.), *Phrasal and Clausal Architecture: Syntactic Derivation and Interpretation* (pp. 262-294). Amsterdam: John Benjamins.