

The Person Case Constraint in Kabyle*

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SUMMARY

In this paper, I offer an initial description and theoretical analysis of PCC effects and their repair in the Berber language Kabyle. While the PCC has been documented in a wide variety geographically and genetically diverse languages (see Anagnostopoulou, 2017, Stegovec, 2019 for good overviews), this is the first theoretical treatment of the PCC in any Berber variety (though see Belkadi 2010 for mention of the PCC in Kabyle). Kabyle exhibits what has been called the Ultra-Strong PCC, found at least also in Classical Arabic and some varieties of Catalan (Anagnostopoulou, 2017; Fassi Fehri, 1988; Nevins, 2007). Theoretically, I show that the Kabyle facts are consistent with the approach to PCC effects developed by Coon and Keine (2019) in terms of feature gluttony. I further show that their account straightforwardly explains the Kabyle data, including the repair strategy that Kabyle employs.

RÉSUMÉ

Dans cet article, j'offre une description et une analyse théorique initiales des effets PCC et des moyens de les contourner en kabyle, une langue berbère. Tandis que le PCC a été documenté dans une grande variété de langues géographiquement et génétiquement diverses (voir Anagnostopoulou 2017 et Stegovec 2019 pour de bonnes vues d'ensemble), ceci est le premier traitement théorique du PCC dans un parler berbère (mais voir Belkadi 2010 pour une mention du PCC en kabyle). Le kabyle présente ce que l'on appelle le PCC ultra-fort, qui est aussi retrouvé au moins en arabe classique et en certaines variétés de catalan (Anagnostopoulou, 2017; Fassi Fehri, 1988; Nevins, 2007). Du côté théorique, je démontre que les données kabyles sont conformes à l'approche au PCC développée par Coon et Keine (2019) basée sur la gloutonnerie des traits. Je démontre par ailleurs que leur théorie explique les données kabyles sans complication, y inclus la stratégie de réparation dont le kabyle fait usage.

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1 INTRODUCTION

This examines Person Case Constraint (PCC) effects in Kabyle. The PCC bans certain combinations of person features across multiple arguments across phonologically weak φ -exponents, such as pronominal clitics or agreement (Perlmutter, 1971; Bonet, 1991). An example from Greek is given in (1) below.¹

- (1) Greek PCC (Anagnostopoulou, 2017:4)
- a. Tha **su** **ton** stilune.
 FUT 2SG.GEN 3SG.M.ACC send.3PL
 ‘They will send him to you.’ (✓2DAT > 3ACC)
- b. *Tha **tu** **se** stilune.
 FUT 3SG.M.GEN 2SG.ACC send.3PL
 Intended: ‘They will send you to him.’ (*3DAT > 2ACC)

In Greek, while the combination of a 2nd person genitive indirect object clitic and a 3rd person accusative direct object clitic is grammatical, as shown in (1a), the reverse pairing – that of a 3rd person genitive indirect object clitic and a 2nd person accusative direct object clitic – leads to ungrammaticality, (1b).

Such an effect is also present in Kabyle, as can be seen by comparing the two ditransitive clauses in (2).

- (2) Kabyle PCC
- a. ye-sken =**yi** =**tt**
 3SG.M-show.PFV=1SG.DAT=3SG.F.ACC
 ‘He introduced her to me’ (✓1DAT > 3ACC)
- b. *ye-sken =**as** =**iyi**
 3SG.M-show.PFV=3SG.DAT=1SG.ACC
 Intended: ‘He showed me to him/her’ (*3DAT > 1ACC)

Example (2a) exhibits the combination of a 1st person dative clitic with a 3rd person accusative clitic; this combination is grammatical. On the other hand, the combination of a 3rd person dative clitic with a 1st person accusative clitic in (2a) is ungrammatical.

PCC effects have been documented in a wide range of diverse, unrelated languages (see Anagnostopoulou, 2017, Stegovec, 2019 for good overviews). Although it has been previously observed that Kabyle exhibits PCC effects (Belkadi, 2010; Fahloune, 2020), I know of no theoretical work integrating this observation into the broader PCC literature. Nor do I know of any work on PCC effects in other Berber languages.

¹ Abbreviations used in this paper: 1 = first person; 2 = second person; 3 = third person; ACC = accusative; AOR = aorist; DAT = dative; DIR = directive (clitic); FUT = future; F = feminine; GEN = genitive; IPFV = imperfective; M = masculine; NEG = negative; PFV = perfective; PL = plural; POSS = possessive; SG = singular.

The primary goals of this paper, therefore, are to offer a description and initial theoretical analysis of the PCC in Kabyle. Descriptively, Kabyle exhibits the Ultra-Strong PCC (Nevins, 2007), which bans 1st and 2nd person accusative clitics in the presence of a 3rd person dative clitic and also bans a 1st person accusative clitic in the presence of a 2nd person dative clitic. Theoretically, I offer an analysis in terms Coon and Keine’s (2019) mechanism of Feature Gluttony can account for the PCC in Kabyle in a straightforward way.

The rest of this paper is structured as follows. In section 2, I offer the background on Kabyle clause structure needed by the rest of the analysis. I then present an analysis of clitic doubling in Kabyle in section 3. In section 4, I analyze clauses that have combinations of clitics and the PCC effect which constrains such combinations. Section 5 discusses PCC repairs in Kabyle, or how the illicit combinations ruled out by the PCC are expressed. Section 6 concludes.

2 BACKGROUND: KABYLE CLAUSE STRUCTURE

Before turning to the nature of cliticization and PCC effects in Kabyle, it is necessary to outline some basic assumptions I make here regarding its clause structure. Kabyle has basic VSO word order. All verbs are obligatorily marked for aspect² and subject φ -agreement (person/gender/number).

(3) Aspect marking

a. Perfective

ye-swa weqcic aman
3SG.M-drink.PFV boy water
‘The boy drank water.’

(Fahloune, 2020)

b. Imperfective

ye-ttes weqcic aman
3SG.M-drink.IPFV boy water
‘The boy is drinking water.’

(Fahloune, 2020)

c. Aorist

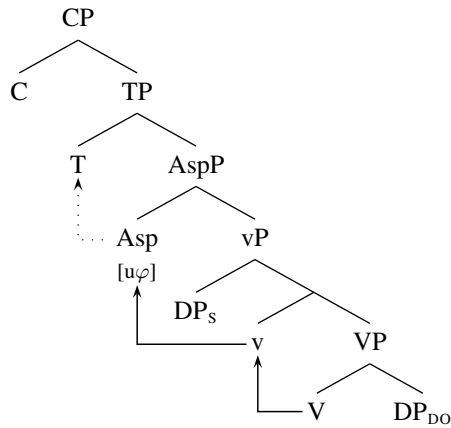
ad i-sew weqcic aman
FUT 3SG.M-drink.AOR boy water
‘The boy will drink water.’

(Fahloune, 2020)

I adopt the clause structure shown in (4); I take aspectual marking to realize an aspect head (Asp) between vP and T.

² All verbs minimally distinguish perfective (PFV) from imperfective (IPFV) morphologically. Other verbs distinguish an aorist (AOR) form from there and a further set apart a negative perfective (NEG.PFV). See Bendjaballah (2001) and Nait-Zerrad (1994, 2001) for discussion.

(4) Clause structure



VSO word order is derived by V raising over the subject in Spec-vP. I assume that V raises at least to Asp, but may raise further to T in the absence of a preverbal particle (such as the future particle *ad*, above; Ouali, 2011).

I take subject agreement to realize a φ -probe ($[u\varphi]$) hosted on Asp which agrees with the subject in Spec-vP. There are two pieces of evidence that favor locating the φ -probe responsible for subject agreement on Asp, and not T (as argued by Ouali, 2011 for Tamazight). The first comes from verb position. Kabyle, like other Berber languages, has a series of preverbal particles. These include the future marker *ad*, seen in (3c) above, the negative *ur*, (5a) and \bar{A} -complementizer *i*, (5b).

(5) Preverbal particles

a. Negative *ur*

ur wala- \bar{B} ara Mohand
 NEG see.PFV-1SG NEG Mohand
 ‘He didn’t see them’

b. Complementizer *i*

aniwa i i-wala
 who C 3SG.M-see.PFV
 ‘Who did you see?’

I follow Ouali’s 2011 work on Tamazight and assume that in the presence of a preverbal particle, the verb does not raise all the way to T, but instead remains in Asp. Taking this to be true, the data above and in (3c) show that the verb can bear subject agreement regardless of whether it has raised to T or not. This follows without further assumptions if the subject φ -probe is located on Asp – the verb always raises to that position, and therefore will always bear subject agreement.

The second argument for locating subject agreement in Asp comes from subject agreement allomorphy. As noted by Fahloune (2020), the form of subject agreement for a class of verbs labeled *verbs of quality* (Achab, 2012) is conditioned by aspect. In the perfective, such verbs take a

different set of subject agreement markers than ordinary verbs.

(6) Ordinary verb, perfective Fahloune (2020)

- a. t-kerz-ḍ
2-plow.PFV=2SG
'You plowed'
- b. ye-krez
3SG.M-plow.PFV
'He plowed'
- c. t-kerz-mt
2-plow.PFV=2PL.M
'Y'all (M) plowed'

(7) Verb of quality, perfective Fahloune (2020)

- a. mellul-ḍ
be.white.PFV=2SG
'You are white'
- b. Ø-mellul
3SG.M-be.white.PFV
'He is white'
- c. mellul-it
be.white.PFV-PL
'we/y'all/they are white'

This type of allomorphy follows straightforwardly if subject agreement is located at Asp: if subject agreement morphemes spell out φ -features on Asp, those features will be local enough to Asp to be conditioned by its content.

With these assumptions in mind, I now turn to cliticization in Kabyle and its derivation.

3 CLITIC DOUBLING IN KABYLE

Kabyle has two sets of morphemes that mark the φ -features of direct objects: accusative clitics mark direct objects, (8), and dative clitics mark indirect objects, (9).

(8) Kabyle object clitics

- a. 1SG
i-wala=yi wergaz
3SG.M-see=1SG.ACC man
'The man saw me.'

- b. 3SG.M
 i-wala=**t** wergaz
 3SG.M-see=3SG.M.ACC man
 ‘The man saw him.’
- c. 3SG.F
 i-wala=**tt** wergaz
 3SG.M-see=3SG.F.ACC man
 ‘The man saw her.’

(9) Dative clitics

- a. 3SG
 te-fka=**yas** amcic
 3SG.F-give.PFV=3SG.DAT cat
 ‘She gave him/her the cat.’
- b. Dative clitic (2SG.M)
 te-fka=**yak** amcic
 3SG.F-give.PFV=2SG.M.DAT cat
 ‘She gave you (M) the cat.’
- c. 1PL
 te-fka=**yaɁ** amcic
 3SG.F-give.PFV=1PL.DAT cat
 ‘She gave us the cat.’

The complete paradigm for both sets of clitics is shown in tables 1 and 2.

Table 1: Accusative clitics

	SG	PL
1	=(i)yi	=(y)aɁ
2M	=(i)k	=(i)ken
2F	=(i)kɛm	=(i)kɛnt
3M	=(i)t	=(i)ten
3F	=(i)tt	=(i)tent

Table 2: Dative clitics

	SG	PL
1	=(i)yi	=(y)aɁ
2M	=ak	=wen
2F	=am	=akwent
3M	=as	=asen
3F	=as	=asent

Morphologically, the two paradigms make the same number of φ -feature distinctions except for in dative 3rd person singular, where gender distinctions are leveled. Syntactically, the two clitic series differ in their ability to cooccur with an overt in situ associate. As shown in (10), an accusative clitic

may not occur with a full DP associate. This is true regardless of the definiteness or specificity, or the pronominal status of the doubled DP.

- (10) No doubling of postverbal direct object
- a. i-wala(*=**t**_i) argaz_i
 3SG.M-see.PFV=3SG.M.ACC man
 Intended: ‘He saw a man’
 - b. i-wala(*=**t**_i) argaz-nni_i
 3SG.M-see.PFV=3SG.M.ACC man-DEM
 Intended: ‘He saw the/that man’
 - c. i-wala(*=**t**_i) netta_i
 3SG.M-see.PFV=3SG.M.ACC 3SG.M.PRO
 Intended: ‘He saw him’

On the other hand, dative clitics *may* cooccur with a full associate. In such cases, the associate must be a dative marked with *i*. This is shown in (11).

- (11) Doubled dative PP
- te-fka=**ya**s_i adlis i wergaz_i
 3SG.F-give=3SG.DAT book DAT man
 ‘She gave the book to the man’

Dative clitic doubling is optional; as shown by (12), dative marked nominals may occur without a corresponding clitic.

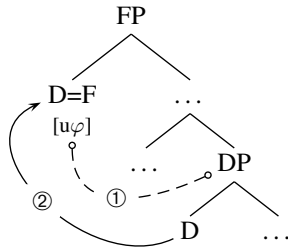
- (12) No dative PP doubling
- te-fka adlis i wergaz
 3SG.F-give book DAT man
 ‘She gave the book to the man’

It is still unclear whether there is a difference in meaning between the sentence in (11), where there is a dative clitic, and (12), where there is no dative clitic. However, there does seem to be a difference in the distribution of doubling with regards to the type of associate. For speakers I have worked with, pronominal datives are almost always doubled, while full R-expressions are mostly doubled but sometimes left undoubled.

There are a variety of proposals in the literature regarding the grammatical representation of clitics in Berber languages. These range from analyzing clitics as spelling out agreement on dedicated functional projections in the clausal spine (Ouali, 2008, 2011) to holding that clitics themselves saturate argument positions and then move to dedicated licensing positions (Boukhris, 1998; Ouhalla, 2005). A third way of thinking holds that clitics represent a D head adjoined to a functional projection (Achab, 2012; Fahloune, 2020).

Following the detailed arguments of Fahloune (2020) in support of this later path, I take object clitics in Kabyle to be true *syntactic clitics* in the sense that they are nominal heads adjoined to another functional head. I following much recent work which takes syntactic cliticization to be an instance of long head movement of a D to a higher functional head triggered by agree with that head (e.g., Anagnostopoulou, 2003; Preminger, 2019; Yuan, 2018), as shown in (13).

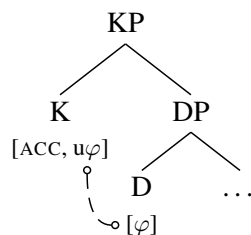
(13) Syntactic cliticization



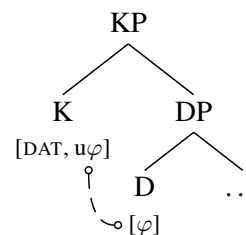
I suggest, however, that the target for cliticization in Kabyle is actually slightly larger than a simple DP. Nominals in Kabyle are marked for a state distinction – all overt nominals are either free state (FS) or construct state (CS; Guerssel, 1987, 1992; Mettouchi and Frajzyngier, 2013). Felice (2020) argues that this distinction maps to a difference in nominal size – free state spells out an accusative KP layer, while construct state spells out the lack of such a layer (that is construct state nominals are DPs). Felice argues further that the dative marker *i* is a case marker that heads KP.

If Felice’s analysis is on the right track, then the target for the φ -probe on F in (13) in Kabyle is KP, rather than DP. This, in turn, means that K in Kabyle is capable of hosting φ -features, an idea which is supported by the fact that form of free state marking morphemes in Kabyle varies with the number and gender of the stem they attach to (see Felice, 2020). Here, I assume that K itself hosts a φ -probe which agrees with the DP it selects, as shown in (14)–(15).

(14) Accusative KP



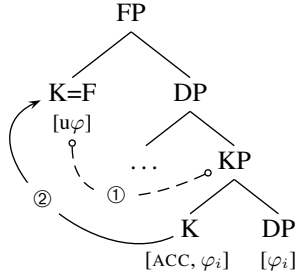
(15) Dative KP



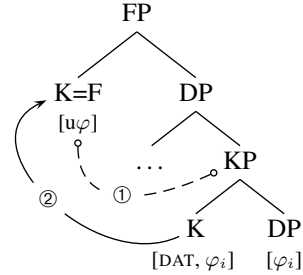
As shown in (15), I assume that the dative K head has φ -probe, even though the dative case marker *i* is invariant. For the analysis here, this is a crucial assumption: the φ -features must be at the KP level to be accessible to the φ -probe that triggers cliticization. I will return to this point below in section 5 when discussing PCC repairs.

Given the analysis of nominals as KPs, cliticization in Kabyle involves movement of a K head with φ -features to the F, with the difference in case on K determining the ultimate spell out of the clitic. This analysis is shown in (16)–(17) at the top of the next page

(16) Accusative cliticization



(17) Dative cliticization

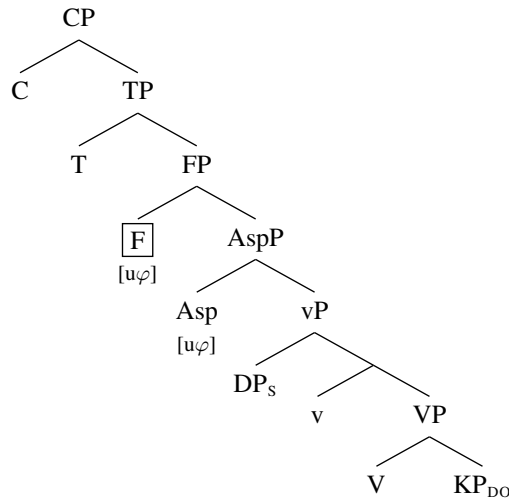


This account takes syntactic cliticization to be a two step process. First, a φ -probe ($[u\varphi]$) on F searches its c-command domain and finds Agrees with a KP. This is followed by head movement of the head of that K to F, creating an adjoined clitic. Accusative clitics are then generated by moving a K with [ACC] head to F and dative clitics are then generated by moving a K with [DAT] head to F.

I propose that all clitics in Kabyle are generated in this way, including those that are unable to have an overt associate, like accusative clitics. I assume that accusative clitics may only double a KP containing a null *pro*, while dative clitics are able to double *i* KPs. Whatever derives this difference, it will not be crucial for the analysis here, and I will set it aside for further work.

The exact categorial identity of the functional head F that triggers cliticization is not important for the analysis in this paper.³ More important is the location of FP in the clausal spine. I follow Ouali (2011) in taking clitics, and therefore FP, to occur between AspP and TP, as shown in (18).

(18) Location of FP



By locating FP between TP and AspP, we are able derive the fact that clitics in Kabyle, as in other Berber languages, may precede or follow the verb, depending on clause structure. As dis-

³ There are multiple opinions on which projection should be responsible for clitic doubling in the literature. It has been identified as vP and TP (Boukhris 1998); AspP (Achab 2007); CIP (Ouali 2011) and a null FP (Ouhalla 2005)

cussed above, Kabyle has a system of preverbal particles that include aspectual markers, the \bar{A} -complementizer *i*, and negation. As seen in examples above and in (19), below, when there is no preverbal particle, V hosts the clitic:

- (19) Verb hosts clitic
 i-wala=**tt**_i
 3SG.M-see.PFV=3SG.F.ACC
 ‘He saw a her’

Recall that in such examples, I assume the verb moves from Asp to T, meaning that it will move through F, picking up the clitic on its way to T. This naturally derives the fact that the verb hosts the clitic in these cases. When the verb is preceded by a preverbal particle, however, clitics are hosted by the particle instead of the verb, as shown in (20).

- (20) Preverbal clitic hosts
- a. Future/irrealis *a(d)*
 a=**t** y-aker
 FUT=3SG.M.ACC 3SG.M-steal
 ‘He will steal it’
 - b. Negative *ur*
 ur=**ten** wala-**ɸ** ara
 NEG=3PL.M.ACC see-1SG NEG
 ‘He didn’t see them’
 - c. \bar{A} -complementizer *i*
 aniwa i=**yi** iʃeʒeven
 who C=1SG.DAT please.PART
 ‘Who pleased me?’

Recall from above that I assume the V moves to at least Asp, but does not raise higher in the presence of a preverbal particle. This is exactly the case where clitics are hosted by the particle to their left. Here, I will not take a position on exactly how this host-clitic relationship is established. It could be that F always head moves to a higher head that can host a clitic, or it could be that clitic placement in this case is derived postsyntactically.

With these background points in mind, in the next section, I discuss clusters of clitics and PCC effects in Kabyle.

4 MULTIPLE CLITICS AND PCC EFFECTS IN KABYLE

With my analysis of clitic doubling in Kabyle in place, I turn now to cases with multiple clitics and how these clusters of clitics are constrained by the PCC. I first give an analysis of clauses with two clitics in section 4.1 and then turn to PCC effects in section 4.2.

4.1 MULTIPLE CLITICS

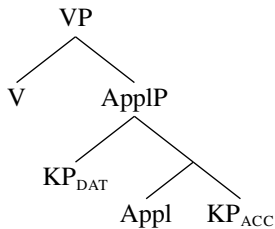
Both arguments of a ditransitive verb may be realized as clitics, in which case the cluster of clitics that results is strictly ordered. As shown in (21), the dative clitic must *precede* the accusative clitic.

(21) Strict DAT>ACC ordering

- a. ye-sken **=asen** **=t**
 3SG.M-show=3PL.M.DAT=3SG.M.ACC
 ‘He showed it to them’ (✓ DAT > ACC)
- b. *ye-sken **=it** **=asen**
 3SG.M-show=3SG.M.ACC=3PL.M.DAT
 Intended: ‘He showed it to them’ (*ACC > DAT)

I assume that ditransitive predicates such as *yesken* in (21) involve a low ApplP that is merged as the complement of V. The goal is merged in Spec-AppIP as a dative KP and Appl takes the theme argument as an accusative KP as its complement. This is shown in (22).

(22) Ditransitive predicate



Evidence for this structure comes from reflexive binding in ditransitives. As shown in (23), a dative may bind an accusative reflexive, but an accusative may not bind a dative reflexive.

(23) a. IO≫DO = IO can bind reflexive DO

zaknaʙ=as=ed i Sara_i iman-is_i di yimri
 show.PERF.1SG=3SG.DAT=DIR DAT Sara self-3SG.POSS in mirror
 ‘I showed Sara herself in the mirror.’

b. IO≫DO = IO cannot bind reflexive DO

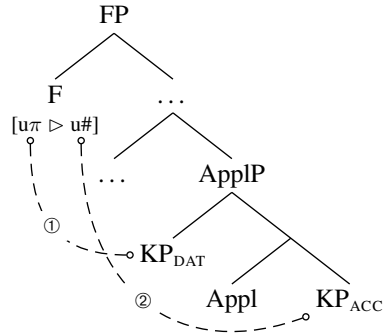
*zaknaʙ=as=ed i jiman-is_i Sara_i di yimri
 show.PERF.1SG=3SG.DAT=DIR DAT self-3SG.POSS Sara in mirror
 ‘I showed Sara to herself in the mirror.’

This fact indicates that the dative argument asymmetrically c-commands the accusative, a fact that the structure in (22) captures.

To account for the presence of multiple clitics in a single clause, I propose that F is able to agree with, and double multiple arguments. Concretely, I assume, following Coon and Keine (2019) that F bears an articulated φ -probe, split into a person probe ([u π]) and a number probe ([u#]). These

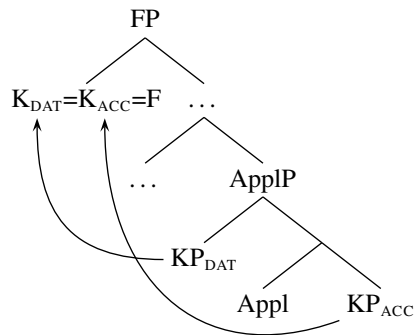
probes search F's c-command domain sequentially. I assume that person probes before number (here symbolized with \triangleright).

(24) Clitic cluster (Agree step)



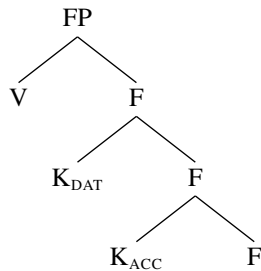
In (24), the person probe on F searches and finds the dative argument in Spec-AppIP. Subsequently, the number probe searches and finds the accusative in Comp-AppIP. It is able to agree with the lower argument because the first has already been agreed with, and, by assumption, made invisible to other probes. I assume that each of these probes is capable of triggering cliticization (that is, head movement) to F. That is, after agreeing with F in (24), the K head of each goal adjoins to F, generating a clitic. This is shown in (25).

(25) Clitic adjunction to F (move step)



In (25), cliticization occurs for the two arguments that the probes on F have agreed with. I assume that order of adjunction to F maps to the structural height of the associated arguments inside AppIP, with the clitic associated with the lower argument tucking in below the higher clitic when it is moved to F. After head movement of V to F, the resulting structure in (26) produces the observed linear order.

(26) Complex head at F after V movement



With this part of the analysis in place, I now turn to the PCC in Kabyle and its derivation.

4.2 PCC EFFECTS

While it is possible in principle to generate two clitics in a clause, not all combinations of clitics are licit. Kabyle has three combinations of person features in dative-accusative clitic clusters, as shown in (27).

(27) Banned DAT=ACC combinations in Kabyle

- a. *ye-sken **=ak** **=iyi**
 3SG.M-show=2SG.M.DAT=1SG.ACC
 ('He showed me to you') (*2DAT > 1ACC)
- b. *ye-sken **=asen** **=iyi**
 3SG.M-show=3PL.M.DAT=1SG.ACC
 ('He showed me to them') (*3DAT > 1ACC)
- c. *ye-wwi **=yas** **=kem**
 3SG.M-bring=3SG.M.DAT=2SG.M.ACC
 ('He brought you to him/her') (*3DAT > 2ACC)

All other possible combinations of clitics are grammatical, as shown in (28).

(28) Licit DAT=ACC combinations in Kabyle

- a. ye-sken **=iyi** **=k**
 3SG.M-show=1SG.DAT=2SG.M.ACC
 'He showed you to me' (✓ 1DAT > 2ACC)
- b. ye-sken **=iyi** **=tt**
 3SG.M-show=1SG.DAT=3SG.F.ACC
 'He introduced her to me' (✓ 1DAT > 3ACC)
- c. ye-sken **=aken** **=t**
 3SG.M-show=2PL.M.DAT=3SG.M.ACC
 'He showed him to y'all' (✓ 2DAT > 2ACC)

- d. ye-sken =asen =t
 3SG.M-show=3PL.M.DAT=3SG.M.ACC
 ‘He showed it to them’ (✓3DAT > 3ACC)

The generalizations that emerges from the data in (27)–(28) are given in (29).

(29) Kabyle PCC generalizations

When the dative clitic is 3rd person, the accusative clitic cannot be 1st or 2nd person.
 When the dative clitic is 2nd person, the accusative clitic cannot be 1st person.

The combinations that are ruled out are summarized in table 3.

Table 3: Summary of possible clitic clusters

	1ACC	2ACC	3ACC
1DAT	-	✓	✓
2DAT	✗	-	✓
3DAT	✗	✗	✓

The constraint in (29) is what Nevins (2007) refers to as the Ultra-Strong PCC. PCC effects of this type are also found in Classical Arabic (Fassi Fehri, 1988), as shown in (30) and some varieties of Catalan, as shown in (31).

(30) Classical Arabic Ultra-Strong PCC (Nevins, 2007:298)

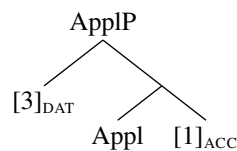
- *ʔaʕta:-ka-ni:
 gave.3SUBJ-2DAT-1ACC
 Intended: ‘He gave me to you.’ (*2DAT > 1ACC)

(31) Catalan Ultra-Strong PCC (adapted from Anagnostopoulou, 2017:5)

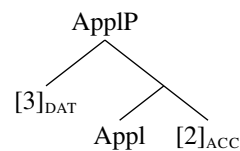
- *Te’ m van recomanar per la feina.
 2DAT 1ACC recommended.3PL for the job
 ‘They recommended me to you for the job.’ (*2DAT > 1ACC)

Languages exhibiting the Ultra-Strong PCC rule out the distributions of person features within ApplP that are shown in (32)–(34).

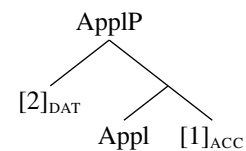
(32) *3DAT > 1ACC



(33) *3DAT > 2ACC



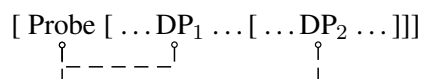
(34) *2DAT > 1ACC



The question for any account of the PCC is what principles rule out the structures in (32)–(34). Here, I follow the model of *hierarchy effects* developed by Coon and Keine (2019). A hierarchy effect is a configuration whose grammaticality depends on the relative ranking of the two DPs with respect to some hierarchy (for example, 1>2>3 for person). The core intuition behind Coon and Keine’s analysis of PCC effects is that they arise when the lower of two arguments is *more highly specified* with regard to a person hierarchy than the higher argument.

Specifically, Coon and Keine propose that hierarchy effects like that PCC arise when a probe agrees with two arguments in its c-command domain, a configuration they call feature gluttony. This is schematized in (35)

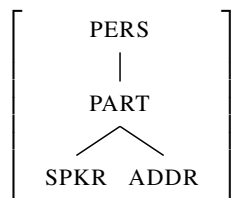
(35) Feature Gluttony (Coon and Keine, 2019:4)



The configuration in (35) creates an irresolvable conflict for subsequent operations, which leads to ineffability.

Before showing how feature gluttony can account for the PCC in Kabyle, some key assumptions need to be introduced. Following much previous work, I assume φ -features are articulated (Harley and Ritter, 2002; Béjar, 2003; Béjar and Rezac, 2009). Specifically, I assume that person features have the internal structure in (36).⁴

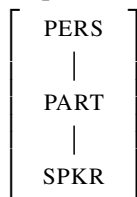
(36) Person features (adapted from Coon and Keine, 2019:13)



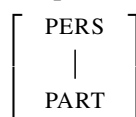
Individual person values are specified for a subset of the feature geometry above. The feature specifications I assume for first, second, and third person in Kabyle are given in (37).

(37) Person values

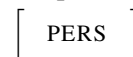
a. 1st person



b. 2nd person



c. 3rd person



⁴ In (36), *pers* = person, *part* = participant, *spkr* = speaker, and *addr* = addressee.

I assume that φ -probes are also internally articulated along the lines of (36), but may vary to the degree they are articulated. Specifically, I assume that the person probe on F ($[u\pi]$) has the following articulated structure.

- (38) Person probe on F
- $$\left[\begin{array}{c} \text{uPERS} \\ | \\ \text{uPART} \\ | \\ \text{uSPKR} \end{array} \right]$$

The probe in (38) consists of three segments, each of which must enter into a valuation relation with a matching segment to be satisfied. The version of Agree I adopt is shown in (39).

- (39) Agree (adapted from Coon and Keine, 2019:14)

A probe segment $[uF]$ agrees with the closest accessible XP in its domain that bears $[F]$. If Agree is established, the hierarchy of segments containing $[F]$ is copied over to the probe, valuing and thus removing $[uF]$.

On this conception, Agree values and removes segments from a probe, and a probe can enter into multiple valuation relationships if all segments of that probe cannot be fully valued against one XP in its domain. I follow Coon and Keine in assuming that a probe need not value all its segments, but must search (Preminger, 2014).

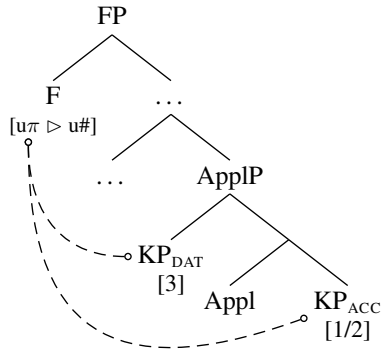
Taking these assumptions together, a feature gluttony configuration will arise when a probe has two potential goals in its c-command domain, and the lower of those goals is more highly specified with regards to the features the probe is searching for. Compare the structures in (40).

- (40) a. Lower goal more specified \rightarrow Gluttony occurs
- $$\begin{array}{c} [\text{Probe}_{[u_x[u_y[u_z]]]} [\dots \text{DP}_{1[x]} \dots [\dots \text{DP}_{2[x[y[z]]}] \dots]] \\ \uparrow \qquad \qquad \qquad \uparrow \qquad \qquad \qquad \uparrow \\ | \text{-----} | \end{array}$$
- b. Lower goal more specified \rightarrow Gluttony does not occur
- $$\begin{array}{c} [\text{Probe}_{[u_x[u_y[u_z]]]} [\dots \text{DP}_{1[x[y[z]]}] \dots [\dots \text{DP}_{2[x]} \dots]] \\ \uparrow \qquad \qquad \qquad \uparrow \\ | \text{-----} | \end{array}$$

In (40a), gluttony arises because both DP_1 and DP_2 have features that match segments on the probe, and DP_2 is more highly specified. In (40b), no gluttony arises because DP_2 is less highly specified, and the probe can satisfy all of its segments against the higher goal.

Consider now what happens in a PCC violating structure in Kabyle, such as when F c-commands a 3rd person dative over a 1st or 2nd person accusative, as shown in (41).

(41) PCC violating configuration: 3DAT > 1/2ACC



When $[u\pi]$ probes in (41), it is able to be valued its $[u\text{PERS}]$ segments against the 3rd person dative in Spec-AppIP, but other segments are left unsatisfied. Thus, it also agrees with the local person accusative lower down in the structure. This is a feature gluttony configuration. Crucially, it is able to do this because the local persona accusative is more highly specified than the first person.

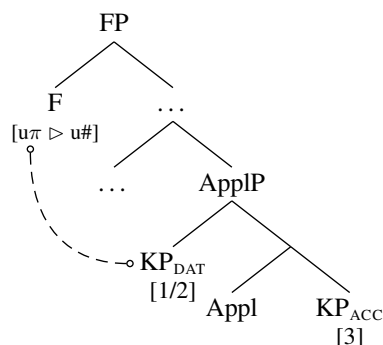
Coon and Keine propose this this type of probing configuration leads to ungrammaticality because of constraints on the operations that come after probing. Concretely, Coon and Keine assume the principle in (42).

(42) For a probe P which requires clitic doubling, every XP that P has agreed with must cliticize onto P.

While this is unproblematic when a clitic doubling probe has agreed with only one goal, problems arise for gluttonous probes. Coon and Keine argue that this is because there is no subsequently licit operation when a gluttonous configuration arises. First, cliticizing only one of the KPs or neither of the KPs is not sufficient – this is ruled out by (42). Second, it is impossible to cliticize the two KPs sequentially because by only cliticizing one KP at a time, each step of cliticization temporarily violates (42): cliticizing one KP will leave a KP that has agreed with F but which has been cliticized. Coon and Keine argue that this violates requirement that every step of a derivation must be wellformed. Thus, there is no way in the structure in (41) to clitic double both KPs, and the derivation crashes.

On the other hand, in a structure that does not violate the PCC, such as a 1st or 2nd person dative over a 3rd person accusative, no gluttony arises, as shown in (43) at the top of the next page.

(43) Non-PCC violating configuration: 1/2DAT > 3ACC



Because the higher KP is more highly specified than the lower KP in (43), the person probe on F only agrees with the dative argument. Thus, no gluttony is created, and no PCC violation arises.

Table 4 gives the possible configurations of person features in combinations of dative and accusative arguments, and indicates in each situation which argument is more highly specified with regards to φ -features.

Table 4: Summary of possible clitic clusters

	1ACC	2ACC	3ACC
1DAT	-	higher	higher
2DAT	lower	-	higher
3DAT	lower	lower	equal

In situations where the higher KP is more highly specified or both KPs are equally specified, no gluttony configuration arises. When the lower of KP is more highly specified, gluttony, and a PCC violation, occurs. In the next section, I turn to how such configurations are repaired.

5 PCC REPAIRS

In many languages with the PCC, it is possible to express the intended meaning of a PCC violating structure using an alternative structure. These alternative structures are known as PCC repairs. In French, for instance, a PCC violating configuration may be repaired by expressing the dative argument as a full PP, rather than as a dative clitic.

(44) French PCC (Anagnostopoulou, 2003:311)

- a. *Paul **me** **lui** présentera.
 Paul 1SG.ACC 3SG.DAT will.introduce
 Intended: ‘Paul will introduce me to him.’

(*3DAT > 1ACC)

- b. Paul **me** présentera **à lui**.
 Paul 1SG.ACC will.introduce to him
 Intended: ‘Paul will introduce me to him.’ (✓3DAT PP > 2ACC)

In the feature gluttony account of the PCC, (44a) violates the PCC because the relevant clitic doubling probe enters into a gluttonous configuration with the 3rd person dative and 1st person accusative arguments. By merging the goal argument as a PP instead of a dative DP, it is rendered inaccessible to the probe and no gluttony occurs.

- (45) PP goal \rightarrow no gluttony
 [Probe [... PP_{DAT} ... [... DP_{ACC} ...]]]
 ↑ ↑
 |-----|

Another way of avoiding the PCC is found in Greek, where the direct object simply is not cliticized, but instead appears as strong accusative pronoun. Compare (46a) and (46b).

- (46) Greek PCC repair (Anagnostopoulou, 2017:4,6)
- a. *Tha **tu** **se** stilune.
 FUT 3SG.M.GEN 2SG.ACC send.3PL
 Intended: ‘They will send you to him.’ (*3DAT > 2ACC)
- b. *Tha **tu** stilune **esena**.
 FUT 3SG.M.GEN send.3PL you.ACC
 Intended: ‘They will send you to him.’ (✓3DAT > 2ACC pronoun)

Coon and Keine follow Béjar and Rezac (2003:54) in assuming that strong pronouns like the one in (46b) are contained in an additional functional projection (for them, FP) which renders the accusative’s φ -features invisible to φ -probes. From this perspective, Greek and French make use of the same strategy to repair PCC violations – one of the arguments is rendered invisible to φ -probes, thus preventing gluttony in the first place.

- (47) FP goal \rightarrow no gluttony
 [Probe [... DP_{DAT} ... [... FP_{ACC} ...]]]
 ↑ ↑
 |-----|

Kabyle makes use of a PCC repair much like the one found in Greek – the dative argument is left non-doubled, instead appearing as an independent *i* phrase with no clitic associate.

- (48) Kabyle PCC repair
- a. ye-wwi **=iyi** =d Mohand **i kečč**
 3SG.M-bring=1SG.ACC=DIR Mohand DAT 2SG.M.PRO
 ‘He brought me to you’ (✓2DAT > 1ACC)

- b. ye-sken =iyi Mohand **i nettat**
 3SG.M-show=1SG.ACC Mohand DAT 3SG.F.PRO
 ‘Mohand showed me to her’ (✓3DAT > 1ACC)
- c. ye-fka =kem **i nettat**
 3SG.M-gave=2SG.M.ACC DAT 3SG.F.PRO
 ‘He gave you to her’ (✓3DAT > 2ACC)

Unsurprisingly, full dative associates may not be doubled when it would lead to a PCC violating configuration. Instead, the dative goal is left undoubled.

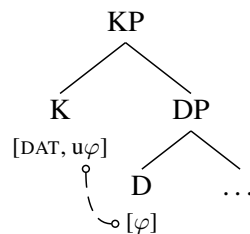
(49) PCC renders blocks potential doubling

- a. No doubling
 te-sken =iyi **i wergaz**
 3SG.F-give=1SG.ACC DAT man
 ‘She gave the book to the man’ (✓3DAT > 2ACC)
- b. Doubling
 *te-sken =as_i =iyi **i wergaz_i**
 3SG.F-show=3SG.M.DAT=1SG.ACC DAT man
 Intended ‘She showed me to the man’ (*3DAT > 2ACC)

Importantly, the data in (49) reinforce the idea that the PCC is about combinations of *weak* φ -exponents, and not simply certain configurations of φ -features in a certain domain. Both (49a) and (49b) have the same configuration of φ -features; the only difference is that (49a) lacks a dative clitic, whereas (49b) has a dative clitic.

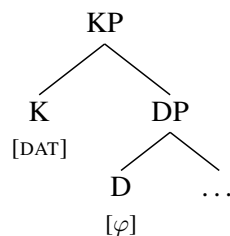
I suggest that the Kabyle PCC repair is the equivalent of the Greek PCC repair, but one which targets the dative rather than the accusative argument. Given my analysis of datives as KPs headed by the dative marker *i* above, there are two ways to analyze the lack of doubling in (48)–(49). First, recall that I proposed that *i* bears a φ -probe which is what accounts for the φ -features of the DP contained with the dative KP being accessible to higher probes. This is shown again in (50).

(50) Dative KP with φ -probe

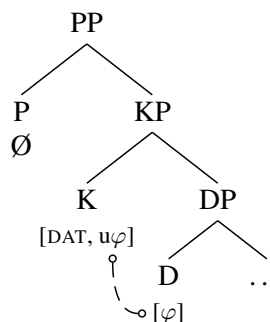


One option to account for cases where such dative KPs are *not* doubled would be to posit two

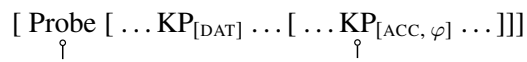
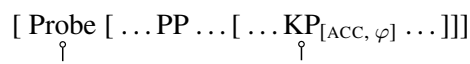
‘flavors’ of KP head, one with a φ -probe as shown above, and one without a φ -probe. A second option to account for non-doubling would be to propose that undoubled datives are enclosed in a null PP layer, like in French.⁵ These two options are shown in (51) and (52).

(51) Dative KP without φ -probe

(52) Dative KP inside PP



Both structures above would have the effect of rendering the φ -features of the DP inside the dative KP layer invisible to probes higher in the clause, thus preventing gluttony from occurring.

(53) a. No $[\varphi]$ on dative \rightarrow no gluttonyb. PP dative \rightarrow no gluttony

I leave to further work the exact nature of the PCC repair in Kabyle. For now, I note that is consistent with the feature gluttony account of the Kabyle PCC that I have developed here.

6 CONCLUSION

In this paper, I have offered an initial description and theoretical analysis of PCC effects and their repair in the Berber language Kabyle. While the PCC has been documented in a wide variety of geographically and genetically diverse languages, this is the first theoretical treatment of the PCC in any Berber variety (though see Belkadi 2010 for mention of the PCC in Kabyle). Kabyle exhibits what has been called the Ultra-Strong PCC, found at least also in Classical Arabic and some varieties of Catalan (Anagnostopoulou, 2017; Fassi Fehri, 1988; Nevins, 2007). At this time, it is unclear whether there are other Berber languages with the PCC, and, if there are, to what extent there is variation in these effects across the family. Theoretically, I have shown that the Kabyle facts are consistent with the approach to PCC effects developed by Coon and Keine (2019) in terms of feature gluttony. I have shown that their account straightforwardly explains the Kabyle data, including the repair strategy that Kabyle employs.

⁵ As argued by Felice (2020), PPs select KPs in Kabyle.

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