

Agreement Suppression Effects and Unification Via Agree

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1. Introduction

This paper analyzes three different phenomena in Berber namely: Argument-Predicate agreement, Clitic Doubling, and Negative Concord. They have been analyzed as different and unrelated requiring different mechanisms such as Spec-Head relation, co-indexation and Licensing via c-command. The main goal of this paper is to provide evidence that despite being a wide range of different facts, these three syntactic phenomena are generated by one mechanism namely Agree, as defined in Chomsky (2000, 2001). I will show that just as extraction affects Subject-Verb agreement yielding Anti-Agreement effects, it also affects negation yielding a ban of Negative Concord Adverbials, and clitic-doubling yielding a ban of Cliticization. These effects are not coincidental and provide, under proper analysis, further empirical evidence of unification under Agree (and elimination of construction specific accounts). Following Chomsky (2005), the “third factor” in “language design” is a set of general principles of efficient computation. Agree, to the extent that it is a computationally efficient operation, holds for any form of agreement. When this operation is inhibited, the suppression effects are uniformly displayed across all the seemingly disparate domains within which it applies.

2. Subject-Verb Agreement

Verbs in Berber are always inflected for subject agreement. The agreement element can co-occur with the subject as illustrated in (1) and (2).

- (1) ytsha arba thamen
 3s.eat.PERF boy honey
 ‘The boy ate honey’

Berber is also a pro-drop language as illustrated by (2):

- (2) ytsha thamen
 3s.ate.PERF honey
 ‘He/the boy ate honey’

I will assume the following independently motivated and widely accepted Clause Structure for Berber (see Ouhalla 1988 and subsequent works, Guerssel 1985, 1995, Boukhris 1998, Ouali 1999, 2003, 2005, among others).

- (3) [CP [NegP [TP [AspP [vP [VP...]]]]]]

* I would like to thank Sam Epstein, Acrisio Pires and Daniel Seely for all their comments and help with the overall project this work pertains to, needless to say that I bare sole responsibility for any errors.

I will assume that the verb is merged under V and moves to Asp through *v*. The subject is initially merged in Spec-*v* where it surfaces in VSO sentences such as (4). I also assume the definition of Agree in (5):

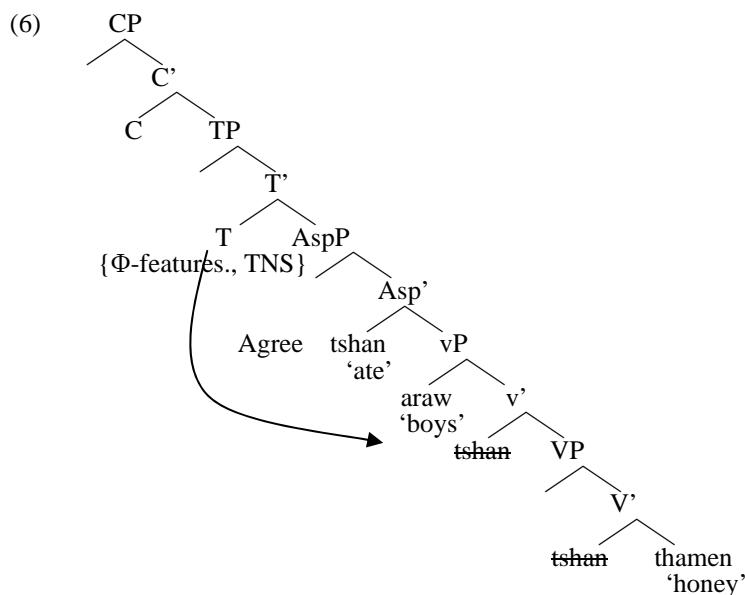
- (4) tshan araw thamen
 ate.PERF.3p boys honey
 ‘The boys ate honey’

(5) **Agree**

The probe P agrees with the closest Matching goal in D.

- a. Matching is feature identity
- b. D is the sister of P. [D= c-command Domain of P]
- c. Locality reduces to closest c-command (Chomsky 2000: 122)

How does the theory of Agree, adopted here, account for the subject verb agreement facts in Berber?



Looking at (6), I argue that the Probe T which is specified for unvalued Φ -features will enter into a Probe-Goal relation with the closest Goal i.e. the subject DP which bears valued Φ -features. The result of the Agree operation is the valuation of the Φ -features of T and Case on the DP. Given this analysis how can one account for the so-called **Anti-Agreement Effect (AAE)**, which is lack of subject verb agreement in subject extraction contexts in Berber? There are three contexts which show lack of subject-verb agreement in Berber (see also Ouhalla 1993, 2005b, and Ouali & Pires *to appear*):

a. Non-Embedded Subject wh-clauses (Compare 7, 8 and 9)

- | | | | | |
|-----|-------------------------------------|------------------|------------------------|--------------|
| (7) | th-e3la
3sf- seePERF | thamtut
woman | araw
boys | VSO |
| | ‘The woman saw the boys’ | | | |
| (8) | mani thamtut-a
which woman-this | ag
COMP | 3la-n
see.PERF-Part | araw
boys |
| | ‘Which woman saw the boys’ | | | |
| (9) | *mani thamtut-a
which woman-this | ag
COMP | th3la
3sf.see.PERF | araw
boys |
| | ‘which woman saw the boys?’ | | | |

b. Subject-relative clauses

- (10) *thamtut* *ag* *3la-n* *araw*
 woman COMP see.PERF.Part(Part) boys
 ‘The woman who saw the boys’
- (11) **thamtut* *ag* **th-3la** *araw*
 woman COMP 3sf-see.PERF boys
 ‘the woman who saw the boys’

c. Cleft-constructions

- (12) *thamtutt* *ag* *3la-n* *araw*
 woman COMP see.PERF.Part boys
 ‘It was this woman that saw the boys’
- (13) **thamtutt* *ag* **th-3la** *araw*
 woman COMP 3sf-see.PERF boys

Notice that *Move* is independent of *Agree* in the Probe-Goal theory. In the Spec-Head agreement approach *Move* is a precondition for agreement. In (8), (10) and (12), Match/Agree between T and the subject should be established prior to the extraction of the subject. I will return to the problem just raised in section 4. First, let us look at another form of agreement namely Negative Concord.

3. Negation and Negative Concord

Negative Concord is a phenomenon that has been argued to involve licensing via C-Command (Laka 1990, Haegeman and Zanuttini (1991, 1996), Haegeman (1995) –for Romance- among others). Watanabe 2002, 2004 (Japanese, Romance, Greek) and Zeijlstra 2004 (Dutch, Romance) analyze Negative Concord Licensing as a result of *Agree* operation established between a Neg head (for Watanabe) or an Operator (for Zeijlstra) and a Negative Concord Item (NCI) in its c-command domain. Berber has two different strategies to express sentential negation. The first is by means of a pre-verbal negative marker -Neg1- *ur* as shown in (14) and the second is by using a second negation expression (Neg2) in addition to *ur* as shown in (15):

- (14) *ur* *ughax* *lktaab* (Tamazight)
 Neg1 1s-bought-1s book
 ‘I did not buy the book’
- (15) *ur* *ughax* *sha* *lktaab* (Tamazight)
 Neg1 1s-bought-1s Neg2 book
 ‘I did not buy the book’

The negation element *sha* can occur in post-verbal position as shown in (15) or in a pre-verbal/pre-Neg1 position as shown in (16):

- (16) *sha-ur* *ughax* *lktaab*
 Neg2-Neg1 1s-bought-1s book
 ‘I didn’t buy the book’

Ur is what carries “the negative” force, in Tamazight Berber, and cannot be dropped:

- (17) **ughax* (*sha*) *lktaab* (Tamazight)
 1s-bought-1s (Neg2) book
 ‘I did not buy the book’

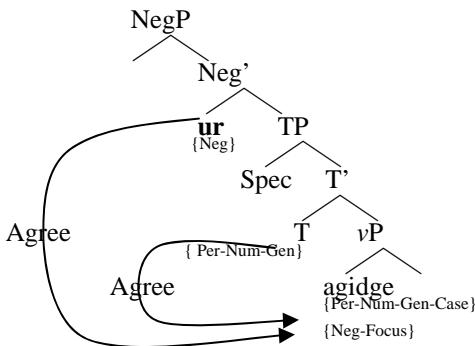
Besides the negative expression *sha* (Neg2), *ur* (Neg1) also licenses NCI's like *agidge* 'no one'.

(18) *ur* *iddi* *ag-idge*
 Neg leave.PERF.neg.3sm not-even-one
 'No one read left'

(19) *ur* *3lix* *walu*
 Neg1 see.PERF.3sm nothing
 'I saw nothing'

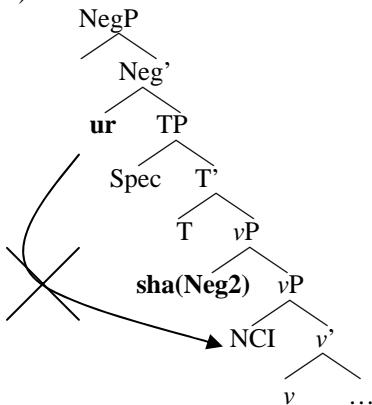
I assume following Watanabe (2004) that NCI's are inherently negative and are marked for focus (see Watanabe 2004 for a cross-linguistic evidence for this hypothesis). Watanabe argues that the focus feature on NCI's gets deleted by virtue of a Probe-Goal relation upon which Agree is established between the Neg-head and the NCI. I argue that the subject *agidge* 'no one' in (18) represented in (20) enters into multiple agreement relations.

(20)



The analysis predicts that if any Neg element intervenes between Neg1 and the NCI it would induce intervention effects as represented in (21).

(21)



This prediction is borne out as shown in (22) where Neg2 intervenes between the probe Neg1 and the goal NCI 'no one'.

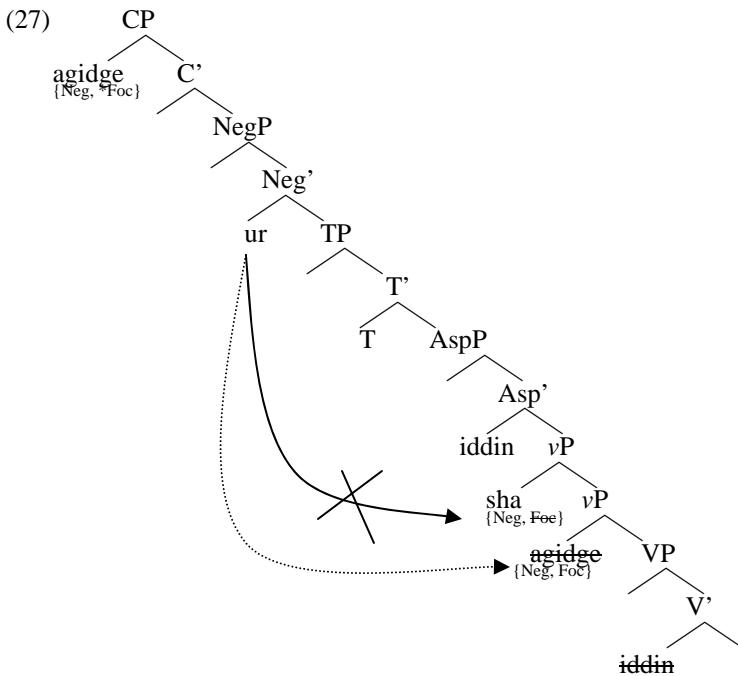
(22) **ur* *iddi* *sha* *agidge* *gher* *lhefla*
 Neg1 go.PERF.neg.3s Neg2 no one to party
 'no one went to the party'

The only context where NCI's like *agidge* 'no one'/literally: 'not even one', can be extracted is when *sha* -Neg2- is not present in the sentence as shown in (23), (24) and (25).

- (23) *agidge* *ur* *iddin*
no one Neg1 go.PERF.neg.AAE
- (24) **agidge* *ur* *iddin* *sha* ~~*agidge*~~
no one Neg1 go.PERF.neg.AAE Neg2 ~~no one~~
- (25) **agidge* *sha-ur* ~~*sha*~~ *iddin* ~~*agidge*~~
no one Neg2-Neg1 ~~Neg2~~ go.PERF.3s.AAE ~~no one~~

Notice that the subject NCI extraction, like any other Subject-extraction namely Subj-Wh, Subj-Relative, and Clefting, yields AAE. Given (24) and (25), the question arises why are they ungrammatical? Looking at the representation of (24) in (26) below, we see that *sha* 'Neg2' intervenes between Neg1 and the NCI. The NCI could not have its focus feature valued and deleted prior to its movement causing an LF crash. Neg2- *sha* is an NCI expression and is also marked for focus.

- (26) *_{[CP} *agidge* _{[NegP} _{[Neg} *ur* _{[TP} *iddin* _{[vP} *sha* _{[vP} ~~*agidge*~~ ~~*iddi*~~ *gher-lhefla*]]]]]
- no one Neg1 went.Part Neg2 ~~no one~~ ~~went~~ to-party



4. Proposal

This takes us back to the subject-verb agreement facts discussed in section 2. As pointed out, AAE results from A-bar extraction of the subject. I argue that the operation Agree applies at the end of each phase. Following Chomsky (2000, 2001, 2004) the two phases are: vP and CP. I propose that Agree adheres to the Probe-Goal Locality Condition described in (28) and schematized (29):

- (28) Probe Goal Locality Condition (PGLC)
A Probe X cannot probe ZP over an intervening Y or YP that bears the same un-interpretable features.

- (29) $X_{\{\alpha\}}$ $*Y_{\{\alpha\}}/*YP_{\{\alpha\}}$ $ZP_{\{\alpha\}}$
 |_____|(_____|)

In Subject extraction contexts C can probe the subject over T, and therefore we cannot obtain T-agreement (subject-verb agreement) as shown in (30) vs. (31) represented in (32):

- (30) mani thamtut-a ag 3la-n araw
 which woman-this COMP see.PERF-Part boys
 ‘Which woman saw the boys’
- (31) *mani thamtut-a ag **th.3la** araw
 which woman-this COMP **3sf.see.PERF** boys
 ‘Which woman saw the boys’
- (32) *[CP mani thamtuta C_{Φ, wh} ag [TP T_{Φ} [vP ~~mani thamtuta~~ [VP **th.3la** araw]]]]
 |_____|(_____|)
- (33) *[Neg ur [TP T[Agr] iddi [vP sha [vP agidge ~~iddi~~...]]]]
 |_____|(_____|)

Notice that this does not mean that multiple Agree is not possible. It is possible as we saw in (20), only if the probe and the goal share the same features and there is no intervening probe or goal with the same un-interpretable features within the same phase.

5. Clitics and Clitic Doubling

Indirect objects in Berber can be optionally doubled as shown in (34). The Clitic and the doubled DP must agree in case and Φ-features as illustrated by the example in (35).

- (34) da-(**as**) wshex i-**Meriam** lektab
 will -(her) give.IMP.1s to-Meriam book
 ‘I will give the book to Meriam’
- (35) *da-**as** wshex i-**yaraw** lhelwa
 will-her give.IMP.1s to-boys candy
 ‘I will give the boys candy’

There have been different proposals regarding the structural position of object clitics. Belletti (1993) and Uriagereka (1995) argue that they are D heads (for Romance). Sportiche (1992, 1998), Manzini (1998) analyze these clitics as Clitic heads. Progovac (2005), among others, argues that they are Agro heads (For Slavic). All things being equal Berber facts favor the Clitic/Agro heads approach (see Ouali 2005). Given this analysis, how is the agreement between the clitic and the double DP obtained? I will argue that it is obtained via Agree, akin to Subject-Verb agreement and Negative concord.

- (36) [TP da- [CLP **as** wshex [Vp i-**Meriam** lektab
 |_____|^{Agree}_____|
 will- her give.IMP.1s to-Meriam book
 ‘I gave the book to Meriam’
- (37) *C_{wh/topic..} CL_{wh/topic..} Obj_{wh/topic..}

Just as the subject extraction affects agreement, object extraction, as predicted, also affects clitic-doubling:

- (38) Meriam ami wshix-(*as) lkthaab
 Meriam that give.PERF.1s-(*her) book
 ‘It was to Meriam that I gave the book’

When this operation is inhibited, the suppression effects are uniformly displayed across all the seemingly disparate domains within which it applies. I showed how agreement in these three different syntactic phenomena can be obtained through the same syntactic relation, and how in all three cases this relation involves the same structural relation namely C-Command. I also showed that in Berber, certain argument extraction inhibits agreement. Subject extraction yields AAE, Object extraction yields a ban of clitic-doubling, and NCI extraction yields a ban of the negative concord element Neg2. I believe that this is not a coincidence and provides further evidence of unification under Agree.

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