Arbitrary Null Object Languages in a Parametric Theory of Linguistic Variation

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0. Introduction*

Within the Government-Binding framework, the parametric theory of linguistic variation spelled out in Chomsky (1981) is designed to provide a principled account of cross-linguistic and/or cross-dialectal variation as well as a maximally simple answer to the question of why such a variation remains unproblematic for the first language learner. According to the Chomskyan view of parameters, the grammar of a speaker consists of an innate set of universal principles, which are cross-linguistic constants, as well as an innate set of parameters, each of which range over a number of possible settings. The only "learned behavior" is the language specific operation of selecting a value for each parameter. The resulting set of value-fixed parameters then naturally interacts with the set of universal principles to yield a variety of language specific effects. Two given languages or dialects will therefore differ as long as they select different values for at least one parameter. When comparing several languages the task of the linguist is therefore to identify parameters on the basis of (a) cross-linguistic variation within a construction and (b) language specific systematic patterns which emerge from superficially unrelated constructions. In this paper I will use this theory of linguistic variation to argue that the presence vs. absence of V-governed arbitrary empty categories across languages is a direct consequence of the strong vs. weak agreement parameter advocated in Pollock (1989).

1. Some crucial assumptions

1.1 Arbitrary Null Objects as Empty Categories

Rizzi (1986) was first to notice the presence, in languages like Italian, of phonetically unrealized (V-governed) arguments which appear in sentences with a generic time reference. The following examples, due to Rizzi, contain a "null object" of that type:

(1) a. Il bel tempo invoglia [e] a PRO restare.
         "The nice weather induces _____ to stay."
     b. La buena musica riconcilia [e] con se stessi.
         "Good music reconciles _____ with oneself."
     c. Questa musica rende [e] allegri.
         "This music renders _____ happy."

The empty slots in the glosses in (1) mimic what happens in Italian and remain ungrammatical in English. The argument these slots stand for receives a kind of arbitrary interpretation best described here as quasi-universal quantification over a pragmatically identified set of humans. Originally, Rizzi (1986) (and Roberge 1987 for French) argued that such arbitrary null objects are empty categories which fill a syntactic V-governed position. This view is not uncontroversial, however, since Bouchard (1987), Condoravdi (1987), and Williams (1986) all argue that arbitrary null objects are "implicit arguments", a term to be understood as referring to thematic roles which are in the thematic array at D-structure but are not mapped onto a structural position (e.g. the external argument in a passive without a *by*-phrase). In unpublished work (Authier 1988), however, I have shown that there are a number of tests which discriminate between implicit arguments and empty categories occupying a structural position and that all of these tests indicate that arbitrary null objects are of the latter sort.

The first test is based on one of the properties specific to control by an implicit argument isolated by Jaeggli (1986a). Jaeggli calls this type of control "thematic control" and argues for distinguishing this notion from the familiar notion of control which he terms "argument control". Among the diverging properties exhibited by the two types of control which Jaeggli (1986a) points out is the fact that argument control, but not thematic control, is possible into passive infinitivals. The following contrast in French illustrates this point:

(2) a. Jean veut PRO être décoré de la Légion d'Honneur
         "Jean wants to be awarded the Legion of Honor."
     b. *Le pont a été dynamité pour PRO être décoré de la Légion
         d'Honneur.
         "The bridge was blown up to be awarded the Legion of Honor."

This difference in behavior between structurally present arguments and implicit arguments with respect to control provides us with the means of testing whether arbitrary null objects are implicit arguments. Supposing that they are, we expect them to be unable to control into passive infinitivals. As the grammaticality of (3) indicates, however, this expectation is not fulfilled as the arbitrary null object triggers argument control:

(3) Une intelligence hors du commun amène souvent [e] à PRO être
     mécompris.
     "An uncommon intelligence often leads _____ to be misunderstood."

Thus we are led to the conclusion that the controller in (3) is not an implicit argument but, rather, a structurally represented empty category.

My second test is based on facts pertaining to pronominal reference in donkey anaphora sentences. Donkey anaphora refers to the possibility for a pronominal in a main clause to be understood as bound by a non c-commanding quantificational NP in an *if*-clause. Crucially, however, only syntactically present quantificational phrases in the *if*-clause can license the bound reading for the pronominal in the main clause. Although I do not have a satisfactory explanation as to why that should be, the constraint is nevertheless real, as the following contrast illustrates:

(4) a. Quand une femme est humiliée par quelqu'un$_i$, elle le$_i$ gifle.
"If a woman is humiliated by someone$_i$ she slaps him$_i$."

b. *Quand une femme est humiliée, elle le gifle.
"If a woman is humiliated, she slaps him."

The sentence in (4b) is ungrammatical only on the (relevant) reading where *le* (=him) is taken to be bound by the implicit argument of the passive. Since both the syntactically unlinked θ-role in (4b) and its linked counterpart (i.e. the *by*-phrase in (4a)) have existential value, it appears that the contrast in (4) is to be attributed to the fact that donkey anaphora requires the presence of a structural position for the quantificational phrase which serves as the antecedent for the bound pronominal. Turning now to arbitrary null objects, we predict that if they truly are structurally present then they should be licit antecedents with respect to donkey anaphora. In order to construct the relevant examples, however, we must first determine what kind of pronominal element can potentially pick the same kind of reference as an arbitrary null object. Since in the unmarked case arbitrary null objects have roughly the force of universal quantification, the indefinite French pronominal *on* seems a good candidate as it displays similar quantificational force in generic contexts:

(5) On a toujours besoin d'affection.
'For all x, x a person, x is always in need of affection.'

Consider now the sentences in (6) where the pronoun *on* in the main clause is understood as bound by the arbitrary null object in the *if*-clause:

(6) a. Quand la peur pousse [e] à PRO fuir, on serre les dents.
"If fear pushes ___ to flee, one must grin and bear it."

b. Quand la musique rend [e] triste, on boit un petit coup.
"If music renders ___ sad, one must have a little drink."

That the pronominal *on* is truly understood as bound by the null object is deducible from the impossibility of interpreting a sentence like (6a) to mean that if fear pushes any individual of a group A determined by context to flee then any individual from another group B, also determined by context, must grin and bear it. Note that crucially there is nothing pragmatically incongruous with this type of reading since such a reading is, in fact, possible given a different syntactic environment:

(7) On a peur que la crise économique ne pousse [e] à PRO manifester.
"One is afraid that the economic recession may push ___ to demonstrate."

The sentence in (7) can be taken to mean that any individual from a group of in-dividuals A is afraid that the economic recession may push any individual from a group of individuals B, B distinct from A, to demonstrate. Depending on the con-text, "distinct" will take the form of proper inclusion (e.g. if (7) is uttered in the context of domestic affairs) or it will mean that the intersection of groups A and B is the null set (e.g., if (7) is uttered in the context of foreign affairs). In (6), on the other hand, the set denoted by the null object and that denoted by *on* must be the same, hence we conclude that (6) is a true case of donkey anaphora and that, therefore, the arbitrary null object must be structurally present.

One last argument in favor of the structural presence of arbitrary null objects can be constructed with respect to the predicate clitic *le* in French. As pointed out in Kayne (1975), the clitic *le* which appears in (8a) can be found corresponding to such syntactically diverse predicates as the ones between brackets in (8b-d):

(8)   a.   Alain l'est.   b.   Alain est [en colère]
         "Alain is (it)."   "Alain is angry."

        c.   Alain est [peintre]   d.   Alain est [adoré de ses caniches]
         "Alain is a painter."   "Alain is loved by his poodles."

Passivized predicates without a *by*-phrase, which select an external implicit arg-ument, can also cliticize to *le* as (9) illustrates:

(9)   a.   Alain a été arrêté à Paris.
         "Alain was arrested in Paris."

        b.   Alain l'a été à Paris. (le = arrêté)
         "Alain was it in Paris. (it = arrested)"

Consider now the sentence in (10), which contains an arbitrary null object, or, more accurately, an arbitrary null subject of a subcategorized small clause:

(10)   Souvent, son talent laisse [[e] sans voix]
       "Often, his talent leaves___speechless."

Supposing that the subject of the predicate *sans voix* is not structurally present but is an implicit argument, we expect the predicate *sans voix* to be able to cliticize to *le* just like the predicate *arrêté* in (9). If, on the other hand, (10) truly involves the presence of a structurally realized small clause subject then we expect the predicate *sans voix* to be unable to cliticize over an empty subject NP just like it is unable to cliticize over an overt one in (11b).

(11)   a.   Souvent, son talent laisse [les gens sans voix]
          "Often, his talent leaves people speechless."
      b.   *Souvent, son talent le_i laisse [les gens $[e]_i$]

All the accounts of the ungrammaticality of (11b) that I am familiar with (e.g., Kayne's 1975 Specified Subject Condition account, Heggie's 1987 Theta Criterion violation account, etc.) make reference to the presence of a structural subject of the small clause. The prediction is, therefore, that if there is an empty category in the subject position of the small clause in (10) then the predicate *sans voix* should not be cliticizable. This prediction is indeed borne out as the ungrammaticality of (12) indicates:

(12) *Souvent, son talent le$_i$ laisse [e] [e]$_i$ (le = sans voix)

In light of this and the other pieces of evidence presented in this section I will assume that the so-called arbitrary null object in Romance is an empty category occupying a structural position.

1.2 Arbitrary Null Objects as Pronominal Variables

In Authier (1989) I present evidence that the arbitrary null object is an A'-bound empty category. In particular it is shown that arbitrary null objects behave like elements bound by a quantifier phrase in that (a) they trigger weak crossover violations and (b) they interact with existentially quantified NPs to yield scope ambiguities. I argue that arbitrary null objects are base-generated variables bound at LF by an overt or null adverb of quantification (Lewis' 1975 class of unselective binders), from which both the quantificational flavor of null objects and the restricted class of environments (i.e., "generic sentences") in which they are licensed follow naturally.

I will assume this analysis to be basically correct, though I wish to look in more detail at the notion of arbitrary null objects being base-generated variables, partly because this notion remains unorthodox in the Government-Binding framework (PRO and *pro* being the sole base-generated types of empty category) and also because I believe that there is evidence which is not theory-internal indicating that arbitrary null objects are pronominal in nature as well. This evidence comes from Ki-Nande, a language of the Bantu family spoken in Zaire. All of the KiNande data used in this paper are due to Ngessimo Mutaka (p.c.).

KiNande, which displays a rigid SVO word order, exhibits arbitrary null object constructions which typically involve the causative morpheme *i*. There may be other constructions with arbitrary null objects in that language, but I have been unable to identify them with certainty, there being no subcategorized small clauses or control infinitivals as far as I can see. Note, however, the neat parallel between the arbitrary null "objects" found in French causatives in (13) an their KiNande counterparts in (14):

(13) a. Ce poison fait mourir [e] (*par les gens)
          "Lit. This poison makes die _____ (by people)"
      b. Ce film fait pleurer [e] (*par l'audience)
          "Lit. This movie makes cry ___ (by the audience)"

(14) a. esumu eyi yi*ka*hola*i*a [e] (*na abandu)
"Lit. poison this makes-die (generic) _____ (by people)"
b. efilme eyi yi*ka*lira*i*a [e] (*na abandu)
"Lit. movie this makes-cry (generic) _____ (by people)"

That both French and KiNande should license "null objects" in causatives comes as no surprise if we assume a cross-linguistic treatment of causatives along the lines of Baker (1988) whereby the embedded D-structure subject is governed by a "verbal complex" at S-structure. Concerning (13) and (14), several remarks are in order. First, notice the ungrammaticality of the *by*-phrases given in parentheses. This indicates that such sentences are not instances of the so-called "faire-par" construction which Kayne (1975) shows displays striking similarities with passives. A further property distinguishing the construction in (13-14) from the "faire-par" construction is that while the latter allows an implicit object of causation which has the force of existential quantification, the "null objects" in (13-14) display a quantificational force close to that of universal quantification, a property characteristic of arbitrary null objects. In fact, causative constructions like those in (13-14) exhibit the full set of properties tied to arbitrary null object constructions, in particular the restriction to generic contexts on which we will now focus. Notice that in the KiNande examples in (14) two morphemes appear in italics: the already mentioned causative morpheme *i* and the generic present morpheme *ka*. The latter has a nongeneric counterpart *ma* with which it shares one of the morphological slots reserved for tense within the KiNande verbal compound. The first phenomenon worthy of interest when it comes to the distribution of *ka* and *ma* is that only the former can appear in the same sentence as an arbitrary null object:

(15) a. esumu eyi yi*ka*holaia [e]
poison this makes-die (generic)_____
b. *esumu eyi yi*ma*holaia [e]
poison this makes-die (non-generic)_____
"This poison will kill you."

Second, consider the fashion in which *ka* and *ma* interact with object cliticization. Once again these two morphemes appear to be in complementary distribution: *ma* but not *ka* can appear on a verb bearing an object clitic. The examples in (16) where *ba* (=them) is the object clitic and [e] is the empty category corresponding to that clitic illustrate this restriction:

(16) a. esumu eyi yi*maba*holaia [e]
poison this them-makes-die (non-generic)_____
b. *esumu eyi yi*kaba*holaia [e]
poison this them-makes-die (generic)_____
"This poison kills them."

Why are *ka* and *ba* in (16b) mutually exclusive? In order to answer this question we must examine their respective characteristics. First, note that it cannot be the case

that (16b) is ruled out because *ka* and *ba* occupy the same morphological slot. This is because although *ma* and object clitics can co-occur as in (16a), *ma* and *ka* are mutually exclusive. Thus *ma* and *ka* but not *ma* and object clitics occupy the same morphological site, from which it follows that *ka* and object clitics occupy distinct slots. Second, the general prohibition against clitic doubling which holds in KiNande (cf. (17a)) does not affect *ka* (cf. (17b)), which suggests that the latter, unlike object clitics, is not nominal in nature.

(17) a. *Mutaka a*ki*langira *ekitabu*
       Mutaka it-saw   book
       "Mutaka saw the book."
   b. esumu eyi yi*ka*holaia *abandu*
       poison this makes-die (generic) people
       "This poison kills people."

Consider now the contrast between (17b), where *ka* co-occurs with the full NP *abandu* (= people), and (16b), where cliticization of that NP to *ba* (= them) yields an ungrammatical result. If the ungrammaticality of (16b) cannot be blamed on the fact that *ka* occupies the morphological niche reserved for the clitic, then we must conclude that somehow the morpheme *ka* and the object empty category with which the clitic is construed are incompatible. Recall now that I am assuming, following Authier (1989), that arbitrary null objects are licensed cross-linguistically by an unselective operator in the sense of Lewis (1975) which is induced by making reference to the generic property of INFL. In KiNande the generic present morpheme *ka* can therefore be viewed as an overt morphological reflex of INFL indicating the presence in the structure of an unselective operator. This hypothesis is consistent with the fact that in (15b) the absence of *ka* (replaced by its non-generic counterpart *ma*) makes the presence of an arbitrary null object impossible. The ungrammaticality of (16b) can now be viewed as a clash between two potential identifiers of the object empty category; that is, assuming that in KiNande V raises to INFL at S-structure (cf. section 2.3.) and that therefore both *ka* and object clitics are in INFL at that level, we derive the facts in (16b) from a prohibition against INFL harboring two identifiers for one identifiee (i.e., a sort of Bijection Principle). What I am in effect suggesting is that unselective operators like adverbs of quantification, their non-overt generic counterpart, modals, etc. share at least one property with pronominal object clitics: they identify the same type of empty category. Assuming that the empty category object clitics identify is *pro* (Jaeggli 1986b, Montalbetti 1982, Roberge 1986, Sportiche 1983, among others), we are led to view arbitrary null objects as instances of A'-bound *pro* (i.e., pronominal variables). The identification conditions on arbitrary null objects can therefore be added to the identification conditions on object *pro*, provided that we state these conditions in a disjunctive manner:

(18) In order to be interpreted as a non-expletive empty category, V-governed *pro* must be identified by one (and only one) of two elements:
   (a) an overt pronominal clitic (definite interpretation)
   (b) an unselective operator (quantificational interpretation)

Identification is to be understood as a process which provides *pro* with semantic content. In the case of pronominal clitics, a bundle of phi-features such as person, number, and gender are transmitted to the empty category, forcing a definite interpretation and restricting the number of potential referents the pronominal can pick up in the domain of discourse. In the case of arbitrary null objects, the unselective binder present in the structure provides *pro* with quantificational force. To see this clearly, consider the examples in (19) and their paraphrases in (20), where the quantificational force associated with the null object corresponds to that carried by the adverb of quantification (i. e., the unselective binder) which appears in italics in the sentences in (19):

(19) a. Ce gouvernement autorise *rarement pro* à PRO vendre des armes
          "This government rarely authorizes ____ to sell arms."

      b. *Souvent*, cette drogue rend *pro* fou.
          "Often, this drug renders____ insane."

(20) a. Ce gouvernement autorise *peu de gens* à PRO vendre des armes.
          "This government authorizes few people to sell arms."

      b. Cette drogue rend *beaucoup de gens* fou.
          "This drug renders a lot of people insane."

The conditions in (18) thus account for the interpretive properties of V-governed *pro*. Following Rizzi (1986), I will assume that *pro* is subject to two distinct sets of conditions: the identification conditions and the licensing conditions. In addition to the arguments given in Rizzi (1986), my theory of arbitrary null objects also forces us to dissociate the two types of conditions. This is because if we assumed that the conditions in (18) make predictions as to whether a given language L does or does not license *pro* in a V-governed position, then we would wrongly predict that English, which has unselective operators (Lewis 1975, Heim 1982) should have arbitrary null objects by (18b). We are thus led to posit licensing conditions on V-governed *pro* which will be stated as a parameter so as to account for the fact that French, Italian and KiNande but not English have arbitrary null objects.

2. The null object parameter

2.1. Null Objects and the Theory of pro

Rizzi (1986) proposes that each language is arbitrarily associated with a set of licensing heads for *pro*, so that the presence of arbitrary null objects in French is explained by the fact that French has V as a member of its set of licensing heads for *pro*. In English, on the other hand, the set of licensing heads for *pro* is the null set, hence arbitrary null objects remain illicit in that language. Although one cannot a priori object to this kind of parameter, it is easy to see how costly a proliferation of such parameters would be. Indeed while it is relatively easy for the anglophone child to conservatively assume in the absence of positive evidence to the contrary that *pro* is never licensed, the francophone child has to deduce from unrelated constructions that the set of licensing heads for *pro* in French has as its members V (Authier,

1988; Roberge, 1986), the so-called orphan prepositions (Zribi-Hertz, 1984), and the head of DP (Authier, 1990). Furthermore, if Zribi-Hertz (1984) is correct in her claim that some, but not all prepositions can have *pro* as their complement, then the set of licensing heads for *pro* in French appears to be a heterogeneous one indeed. This makes Rizzi's (1986) parameter somewhat suspicious although it is difficult to see how this parameter could have been formulated differently given Rizzi's assumption that there is no distinction between *pro* and overt NPs with respect to Case theory and θ-theory: they both are Case-marked an θ-marked. When *pro* is an argument it has to be θ-marked. From this we could conclude that the Visibility Condition forces us to assume that *pro* is Case-marked as well. As is well-known, however, PRO is a notable exception to the Visibility Condition since it is ungoverned, and therefore Caseless, yet it is θ-marked. Suppose that we assume with Jaeggli (1986b) and Roberge (1986) that *pro* is not Case-marked either. This would put PRO and *pro* together under the assumption that base-generated empty categories are not Casemarked. More importantly, the assumption that *pro* is Caseless opens new possibilities as to what is responsible for the presence versus absence of arbitrary null objects across languages. In what follows I will explore the possibility that what is parametrized is not the presence of *pro* per se but, rather, the ability of transitive verbs to assign ACC Case to elements they govern.

2.2. Licensing pro: The ACC-drop Parameter

The idea that Case-assignment is not uniform across languages but is a parametrized option was put forth is Safir (1985) to formulate what is commonly known as the Null Subject Parameter and becomes, under Safir's formulation, the NOM-drop parameter. Briefly, Safir (1985) argues that the element to which the external θ-role of the VP is assigned in null subject languages like Italian is a non-overt (or silent) subject clitic. The parameter that sets null subject languages like Italian apart from both overt subject languages like English and languages with overt subject clitics like French is the NOM-drop Parameter which may be stated as in (21).

(21) *NOM-drop Parameter*:
Nominative Case must/need not be phonetically realized

where "phonetically realized" is defined by Safir as in (22):

(22) A case C is phonetically realized if C is assigned directly to a lexical NP at S-structure.

The parameter in (21) is in fact a parametrization of one of Safir's (1985) Case Realization Conditions, which Safir states separately because he assumes that they can be parametrized across languages independently from one another:

(23) *Case Realization Conditions*:
a. NOM Case must be phonetically realized.
b. ACC Case must be phonetically realized.
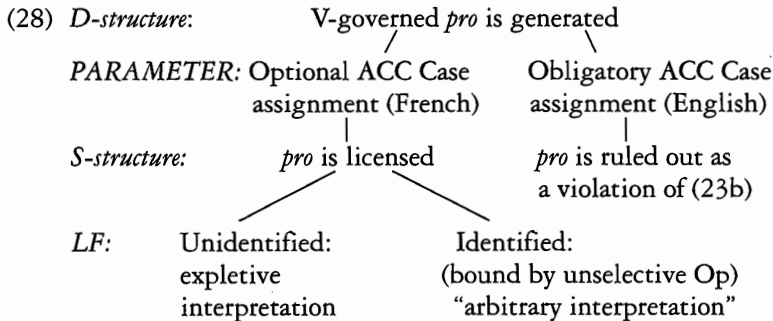c. OBL Case must be phonetically realized.

I would like to propose that English corresponds to the positive setting of (23b) (i.e., ACC Case is assigned obligatorily) whereas French and Italian correspond to the negative setting of the parameter (i.e., ACC Case is assigned optionally). This maximally simple parameter, taken together with the assumption that *pro* is a Case-less element, allows us to predict a number of superficially unrelated facts. First, given that the subject position of small clauses is projected independently from the Projection Principle, we expect that an overt expletive element should be allowed in that position in both English and French. This is indeed correct as shown in (24-25) where the expletive elements are italicized:

(24) a. I find *it* stupid that Mary didn't say anything.
     b. I consider *it* unlikely that Peter told her anything.

(25) a. Je trouve *ça* stupide que Marie n'ait rien dit.
     b. Je crois *ça* peu propable que Pierre lui ait dit quoi que ce soit.

Given the ACC-drop parameter just formulated, we additionally predict that since in French ACC Case is optionally realized, a null expletive pronominal should also be possible in that position in French and impossible in English where, given the obligatory realization of ACC Case, V-governed *pro* is never licensed. These predictions are borne out, as (26-27) illustrate:

(26) a. Je trouve *pro* stupide que Marie n'ait rien dit.
     b. Je crois *pro* peu probable que Pierre lui ait dit quoi que ce soit.

(27) a. *I find *pro* stupid that Mary didn't say anything.
     b. *I consider *pro* unlikely that Peter told her anything.

Furthermore, the ACC-drop parameter allows for the licensing of V-governed *pro* in French in thematic positions, provided of course that *pro* gets identified by either an object clitic or an unselective binder. This accounts for the presence of arbitrary null objects in French, as well as their absence in English. Thus, under the theory of *pro* advocated in this paper, the "null object parameter" can be represented in the following manner:

(28) *D-structure*:   V-governed *pro* is generated
                                 /   \
     PARAMETER: Optional ACC Case   Obligatory ACC Case
                 assignment (French)   assignment (English)
                       | |
     S-structure: *pro* is licensed   *pro* is ruled out as
                                                 a violation of (23b)
                       /   \
     LF: Unidentified: Identified:
               expletive   (bound by unselective Op)
               interpretation   "arbitrary interpretation"

What remains to be spelled out is of course what salient clue(s) will enable the child to deduce that his/her language corresponds to a positive or negative setting of

the ACC-drop parameter. Before addressing this issue in detail, however, it may be useful to point out that treating the cross-linguistic licensing of arbitrary null objects in terms of parametrized Case realization is empirically superior to any account which would attempt to link the presence of arbitrary null objects in a language to the presence in that language of an object clitic paradigm. This latter possibility is, prima facie, a rather appealing one, particularly from the point of view of language acquisition. Indeed, assuming that the empty category clitics are construed with is *pro,* the presence of such clitics in a language would signal that V is a licensing head for *pro,* hence arbitrary null objects would be expected in that language. Under this view, the presence of arbitrary null objects would be parasitic on that of object clitics. Such an approach, however, would fail to account for the existence of languages like Hindi, which do not have a set of object clitics yet nonetheless allow arbitrary null objects. The data I will use to demonstrate this point are due to Gyanam Mahajan (p.c.).

Hindi is an SOV language which, although it allows null subjects of tensed clauses, does not seem to exhibit object cliticization. Consider in this respect the following sentences:

(29) a. Jon us-ko dekhaa.   b. Jon us-ko or Raam-ko dekhaa.
     John him-ACC saw   John him-ACC and Raam-ACC saw
     "John saw him."   "John saw Ram and him."

   c. Jon Raam-se us-ne-baareme baat kii.
     John Raam-to him-ERG-about talked
     "John talked to Ram about him."

The pronominal element *us* (him) in (29a) does not alternate with any other type of (overt) pronominal element. The question is therefore whether *us* is a full pronoun or a pronominal clitic. The sentence in (29b) shows that *us* can appear conjoined with a full NP, an option which is unavailable for pronominal clitics in a host of languages. Further support for the view that *us* is not an object clitic but is a full pronoun comes from sentences like (29c), where *us* appears as the object of a preposition and bears overt ergative marking. Thus we are led to the conclusion that Hindi does not have an object clitic paradigm. Hindi does, however, have arbitrary null objects in exactly the same constructions as French and Italian. This is illustrated in the (b) sentences below:

(30) a. Bhuukh logo-ko galti karne par majbuur kar de-ti hε.
     hunger people-ACC mistakes to-do LOC force give (generic) is
     "Hunger forces people to make mistakes."

   b. Bhuukh [e] galti karne par majbuur kar de-ti hε.
     "Hunger forces____to make mistakes."

(31) a. Yah davaa logo-ko paagal kar de-ti hε
     this drug people-ACC insane do give (generic) is
     "This drug makes people insane."

   b. Yah davaa [e] paagal kar de-ti hε.
     "This drug makes____insane."

In (30b) the null object of *majbuur* (force) displays the force of quasi-universal quantification, a characteristic which identifies it as an arbitrary null object. As (31b) shows, the same type of null object can appear as the subject of a subcategorized small clause, just like in French and Italian. As expected, the arbitrary null object which appears in the (b) sentences in (30-31) is restricted to sentences with a generic time reference. In fact, Hindi arbitrary null objects, just like their KiNande counterparts, must co-occur with a generic marker in the sentence to be licit. So for instance if we replace the generic marker *ti* in (31b) with the perfective marker *yaa*, the environment created can no longer harbor an arbitrary null object:

> (32) *is   davaa-ne [e] paagal kar di-yaa   thaa.
>   OBL drug-ERG   insane to give-PERF was
>   "This drug has made____insane."

Given that Hindi displays arbitrary null objects in the absence of a pronominal object clitic paradigm, it appears that the parametric account of arbitrary null objects in terms of the optionality of ACC Case assignment advocated in this paper is empirically superior to the view that the presence of arbitrary null objects is parasitic on that of object clitics.

The account that I am suggesting is in fact independent from, though by all means compatible with, the generally accepted view that pronominal object clitics, like other overt pronominal elements, require Case (Aoun, 1979; Borer, 1983; Jaeggli, 1982). Thus, I assume that in French object clitic constructions like (33) below, Case is assigned to the object clitic *le,* not to the NP object position, hence the requirement that the latter be the non-lexical element *pro.*

> (33) Jean-Guy le connait *pro.*
>   Jean-Guy him-knows
>   "Jean-Guy knows him."

Because in object clitic constructions of this type ACC Case is assigned, object clitics can appear in a language independently from the parameter which determines the optionality of ACC Case assignment in that language and therefore the presence of V-governed null expletives and arbitrary null objects is in no way parasitic on that of object clitics. Positing an ACC-drop parameter therefore makes testable predictions concerning the typology of possible language types. Specifically, we expect to find the four types of languages given in (34) where theories which collapse object cliticization with arbitrary null objects would only predict the existence of two (i.e., Type A and Type B):

> (34)   Type A   Type B   Type C   Type D
>
>   Object clitics?   yes   no   yes   no
>   ACC Case mandatory?   no   yes   yes   no

Type A is exemplified by languages like French, Italian and KiNande which display object clitic paradigms and have the option of not assigning ACC Case, hence

the licitness of arbitrary null objects in those languages. English is, of course, a Type B language, since it has neither object clitics nor arbitrary null objects. Hindi seems to fall under Type D, as I have just demonstrated. As for languages of type C, they have not, to my knowledge, been documented. If English had a set of object clitics, it would be a language of that type.

2.3. ACC-drop as a Consequence of the Strong vs. Weak AGR Parameter

The ACC-drop parameter, which, as I argued in the preceding section, allows us to formally capture the cross-linguistic distribution of arbitrary null objects, raises a number of non-trivial questions from the point of view of language acquisition. Given the Chomskyan view of parametric theory adopted in this paper, it is generally assumed that empirical evidence is the key to fixing the values of parameters of core grammar. With respect to arbitrary null objects, this amounts to saying that the child will need positive evidence to infer that in his/her language ACC case must or need not be phonetically realized. It goes without saying that the language learner's task would be greatly facilitated if it turned out that other language specific properties systematically correlate with the ACC-drop property. It therefore seems worthwhile to determine whether the ACC-drop parameter can in fact be subsumed under a larger parameter for which plenty of positive evidence is available to the child. In this section I will argue that the ACC-drop parameter is a direct consequence of a larger parameter which Pollock (1989) takes to determine the presence vs. absence of a certain type of V-movement across languages.

Based on a number of word order differences between French and English, Pollock (1989) argues, following Emonds (1978) and Kayne (1984), that there is in French a verb movement rule which is absent in English. This difference between the two languages, he claims, is responsible for contrasts like the following:

(35) a. Paul n'aime pas Christine.   (36) a. Paul bat souvent sa femme.
    b. *Paul likes not Christine.   b. *Paul beats often his wife.

(37) a. My friends all left.   (38) a. *My friends left all.
    b. *Mes amis tous partaient.   b. Mes amis partaient tous.

Briefly, Pollock (1989) argues that there is, in French-type languages, a process of V-raising to tensed INFL which proceeds through the head of the agreement phrase as illustrated in (39):

(39)
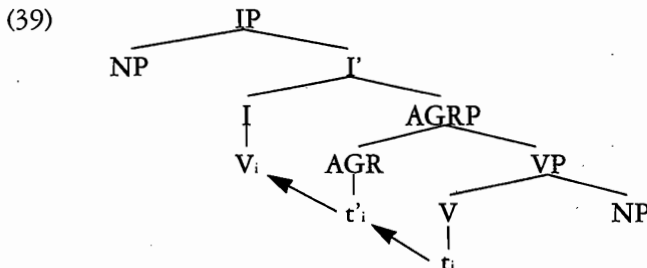
Pollock (1989) further argues that the head of AGR is strong in French while in English it is weak. The difference between French and English with respect to V-raising then reduces to θ-theory. In French, V-raising is possible because strong AGR allows an element which has moved into it to head a θ-chain, but in English V-raising is illicit because weak AGR is opaque to θ-assignment, which leads to a violation of the θ-criterion. In French-type languages lexical verbs will therefore move to tensed INFL to become inflected in finite clauses and short move to AGR in infinitivals because [-finite] INFL is opaque to θ-role assignment in all languages. Implicit in Pollock's account of V-raising is the assumption that strong AGR is not only transparent to θ-assignment, but also is transparent to Case-assignment, otherwise no lexical objects could be licit in French-type languages. Suppose, however, that strong AGR may, but need not, be transparent to ACC Case-assignment, or, to put it differently, that strong AGR optionally absorbs ACC Case. If so, then the ACC-drop parameter formulated in the preceding section is, in fact, part of Pollock's (1989) strong vs. weak AGR parameter. From the point of view of learnability, deriving the ACC-drop property in French-type languages from the strong vs. weak AGR parameter is quite sensible if we assume, following Chomsky (1981:8) that experience is necessary for the learner to fix the value of a parameter and that in the absence of evidence to the contrary the unmarked option is selected. To determine what the unmarked option is with respect to the strong vs. weak AGR parameter, I will use Berwick's (1982) Subset Principle which identifies the marked option as resulting in an increase in the number of well-formed structures that the system can produce. For the learner to assume that AGR is weak in his/her language will result in the absence of V-movement and in the obligatory character of ACC Case assignment, hence V-governed *pro* will be illicit, ultimately resulting in the generation of fewer object NP types. According to the Subset Principle, the assumption that AGR is weak is therefore the unmarked hypothesis that the learner makes in the absence of evidence to the contrary. Learners of English, for instance, will select this unmarked option. Let us now determine what option will be selected by the learner of KiNande. According to Pollock (1989), learners of V-raising languages have access in the primary data to salient clues indicating that verbs undergo movement. These clues include the place of negation, adverbs, and floated quantifiers relative to that of the verb in tensed clauses. To illustrate in a maximally simple manner, let us assume that quantifiers like *each* and *all* are adjoined to VP at S-structure. If V-raising does not apply, we obtain the word order *quantifier verb,* for example, in English (cf. (37a)). If V-raising does apply, then the order *verb quantifier* is expected, French being a case in point (cf. 38b)). Turning now to KiNande, we note that it patterns with French, not with English, with respect to the position of floated quantifiers:
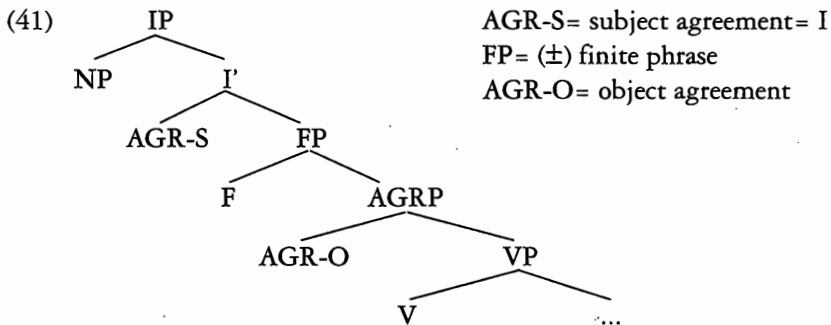
(40) a. Abaira baage baosi mobaagendire.
          friends mine all left
          "All my friends left."
      b. Abaira baage mobaagendire abaosi.
          friends mine left all
          "Lit. My friends left all. (i.e. My friends all left.)"

The presence of an *all*-type quantifier in post-verbal position in sentences like (40b) thus provides a salient clue for KiNande learners that V-raising takes place in that language and that therefore AGR is strong. From there, it is deduced that since strong AGR can absorb ACC Case, V-governed *pro* is licensed and the presence of arbitrary null objects is expected.

3. Concluding remarks

In this paper, I have made specific theoretical proposals with respect to the question of why some languages allow arbitrary null objects while other languages do not. I began by establishing that arbitrary null objects are structurally present and that they are instances of A'-bound *pro*. I then argued that *pro* being a Caseless empty category, the presence of arbitrary null objects in a language simply follows from the Case-assigning properties of verbs in that language. Specifically, I suggested that some languages require ACC Case to be lexically realized while others do not. This parameter, I argued, is not a primitive of core grammar but is a direct consequence of Pollock's (1989) strong vs. weak AGR parameter, a parameter responsible for the presence vs. absence of a certain type of V-movement across languages. In particular, I suggested that in addition to being transparent to θ-assignment, strong AGR optionally absorbs Case and that it is this latter property which triggers the licensing of arbitrary null objects. V-raising then provides a salient clue for assuming the presence of null objects in a language.

I would like to conclude by pointing out that the "null object parameter" formulated in this paper might be extendable to cover cases attributed to the null subject parameter if we assume Chomsky's (1988) slightly modified version of Pollock's (1989) structure of IP which appears in (41):

(41)

```
          IP
        /    \
      NP      I'
            /    \
        AGR-S     FP
                /    \
               F      AGRP
                    /      \
                AGR-O       VP
                          /    \
                         V      ...
```

AGR-S= subject agreement= I
FP= (±) finite phrase
AGR-O= object agreement

In Authier (in progress) I argue that AGR-S, just like AGR-O, can be strong or weak and that null subject languages like Italian and Spanish have a strong AGR-S. Since strong AGR-S, just like strong AGR-O, is optionally opaque to Case-assignment, *pro* is licensed in the subject position of finite clauses in those languages.

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