On a tué le président! The nature of Passives and Ultra-indefinites

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Non-quantificational NP's are often divided into indefinites and definites. The former introduce new referents; the latter refer back to entities already introduced in discourse (see Kamp 1981, Heim 1982, Fauconnier 1984, among others). In this paper, I amend this classification and show that some non-definite NP's, unlike ordinary indefinites, do not introduce discourse terms for future anaphoric reference. I call such NP's 'ultra-indefinites'. My primary example of ultra-indefinites comes from indefinite uses of the subject clitic (or affix) on 'people/someone' in French. Building on work in Discourse Representation Theory I propose to model ultra-indefinites by distinguishing two basic roles of argument NP's— as trackers of discourse referents and satisfiers of a predicate's argument positions— such that some, those I call ultra-indefinites, only fulfill the second function. Finally, I point out the functional similarities between indefinite uses of on and morphosyntactic passives and suggest that sign-based grammars or any grammar obeying Bach 1976's rule-to-rule hypothesis can easily model these functional similarities across morphosyntactic differences.

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1 The facts

1.1 Indefinite uses of on

The French subject clitic on displays several uses, descriptively translated as people, we, or someone. These various uses are illustrated in (1)-(2). I call the first class of uses of on ‘generic’ and its uses as a colloquial first person pronoun substitute equivalent to nous (‘we’) ‘definite’. I reserve the term ‘ultra-indefinite’ (sometimes abbreviated as ‘indefinite’) for instances where on occurs in an episodic context and would be translated in English by someone.

(1) On mange la salade après le plat principal en France.
   ‘People eat salads after entrees in France’

(2) On a téléphoné à Pierre.
   ‘We/Someone have/has called Pierre’  (Legendre 1989 (18a))

Different constraints pertain to these uses, as noticed by several scholars. Legendre 1989, in particular, hypothesizes that the arbitrary interpretation of on exemplified in (1) is restricted to initial 1s (logical subjects in Relational Grammar), but that no such restriction attaches to its first person plural interpretation. This hypothesis predicts that the arbitrary use of on is ungrammatical with subjects of unaccusatives and passive verbs, which are initial 2s (logical objects). Sentences (3)-(5) appear to confirm this hypothesis, since the surface subject realized as on corresponds to an initial 2 in each.1

(3) On est allé au cinéma.
   ‘We/*Someone went to the movie’  Legendre’s (20a)

(4) On est mort chez le voisin.
   ‘Someone died next door’

(5) On a été vu par plusieurs personnes.
   ‘We/*Someone were/was seen by several people’  (her (21a))

Despite its apparent success, Legendre’s hypothesis does not adequately characterize the conditions on arbitrary on, as I show in this section and the next. We must first note that Legendre’s observations ought to be restricted to a subset of what she calls arbitrary on. They hold for the ultra-indefinite interpretation of on—that is for sentences where on would be translated by ‘someone’ in English. They do not hold for instances where on receives a generic interpretation akin to English people. The contrasting conditions on the two uses are illustrated in (6)-(7) (to be compared to (3) and (5) respectively).

(6) En Espagne, on va au cinéma avant le dîner.
   ‘In Spain INDEF go.PR to.the theater before the dinner’

(7) Quand on a les cheveux longs,
   ‘When INDEF have.PR the hair long,
   on est souvent arrêté par la police.
   ‘When you have long hair, you often get arrested by the police’

The contrast in acceptability of ultra-indefinite and generic uses of on in contexts where they bear an initial 2 relation suggests that the two uses should not be conflated; the ultra-indefinite uses exemplify a different construction (a different meaning of on).

1.2 ‘Active’ participants

Having shown that ultra-indefinite uses instantiate an independent grammatical pattern, let me now turn to the constraints proposed by Legendre, of course, properly restricted to ultra-indefinite uses. As mentioned in the previous section, according to Legendre, ultra-indefinite on must correspond to an initial 1. Initial 1’s in Relational Grammar roughly correspond to agents or ACTORS in more semantically oriented theories (cf. Van Valin 1993, Davis 1996 among others). A plausible alternative semantic hypothesis to Legendre’s syntactic account is that indefinite on must be the subject of a verb whose agentive or ACTOR semantic role it satisfies. Given the well-known typical correspondence between initial 1’s and agentive or ACTOR semantic roles (see Perlmutter and Postal 1984), the data in (3)-(5) cannot tell apart the two hypotheses. In all the relevant examples presented in section 1, the subject is neither a logical subject (an initial 1) nor agentive. What we need in order to decide between the two hypotheses are verbs whose initial 1’s (logical subjects) are clearly non-agentive. Legendre’s syntactic account predicts that indefinite on can be the subject of the simple active form of such verbs, since their surface subject is an initial 1. Our alter-

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1Stars which only precede English translations indicate that the corresponding French sentences are ungrammatical under that interpretation and that interpretation only.
native semantic hypothesis that agency is the variable at play predicts they cannot, since their subject does not satisfy an agentive semantic role.

Verbs that exhibit a non-standard lexicalization pattern and display this exact property are discussed in Dowty 1991. One crucial minimal pair is send (French envoyer) and receive (French recevoir). Whereas the subject of (the active form of) the former is agentive, the subject of the latter does not entail agentivity. One can receive mail and gifts without playing any causal role in the event. (8) shows that whereas indefinite on can be the subject of envoyer, it cannot be the subject of recevoir thus confirming the semantic hypothesis at the expense of Legendre's syntactic account. Note that the claim that the subject of the active form of recevoir, is an initial 1 is justified independently on Relational-Grammar-internal grounds, since it can passivize, as shown in (9). Since there can only be one advancement to 1-hood per clause (the 1-Advancement Exclusiveness Law, see Perlmutter and Postal 1984), the subject of recevoir in (8) must be an initial 1 (a logical subject). Otherwise, the subject of its passive form in (9) would be the second term to be advanced to 1-hood, contradicting the putative universality of the law.

(8) a. On lui a envoyé des lettres d’insultes.
   'Somebody sent to him some letters of insults'

   b. On a reçu des lettres d’insultes.
   'Somebody received letters of insults'

(9) Des lettres d’insultes ont été reçues
   'Letters of insults were received by members of our community'

The same conclusion can be drawn from further examination of the behavior of unaccusative verbs. Even though both aller and entrer are unaccusative in French (as their common selection of être as their auxiliary attests), the latter readily welcomes an indefinite on subject, provided its denotatum is agentive. Compare in this respect (3) above and (10) below.

(10) On est encore entré dans mon bureau!
   'We/Someone went into my office again'

In fact, even aller welcomes indefinite uses of on when the agentivity

of the subject’s referent is contextually salient, as the contrast between

(11) Ne t’inquiète pas. On est alle te chercher le journal.
   'Don’t worry. Somebody went out to get you the newspaper.'

(12) On a preoccupé Pierre avec ces histoires.
   'We/*Someone preoccupied Pierre with these stories'

(13) Marc: Qu’est-ce qui est arrivé?
   'Marc: What has happened?'

   Eric: On a effrayé Jacques.
   'Eric: We/Someone frightened Jacques'

An interesting wrinkle to the semantic constraint we are exploring in this section is that the agentive role played by the denotatum of on need not be lexically entailed by the verb of which it is the subject. It may be implied by the entire situation described by the sentence or it may be an otherwise typical consequence of the situation described by the verb. Consider (14) and (15), for example.
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(14) On a trouvé une cure pour le cancer.
INDEF have.PR find.PR a cure for the cancer
'Ve/Someone found a cure for cancer'

(15) Marc: Pourquoi ça va pas, Pierre?
why it go.PR not Pierre
Eric: On lui doit de l'argent
indef to.him owe.PR of DEF money
'Marc: What's wrong with Pierre?
Eric: Somebody owes him money'

In neither (14) nor (15) does on clearly satisfy an agentive role. But note that devoir 'to owe' involves a potential agent. In worlds where people do what they ought to, debtors are future givers (and thus future agents). The potential agentive nature of the subject of devoir is thus similar to the potential recipient nature of the direct object of the ditransitive alternate of owe in English in sentences such as Bill owes Martha money (see Goldsmith 1980 for the notion of potential recipient and Goldberg 1995 for a more detailed discussion). As in the case of ditransitive syntax, potentiality of the semantic entailment (potential agency in the present case) is enough to allow the use of on in (15). In the case of (14), the agentive nature of the denotatum of on is implied by the entire described scene. Finding a cure for a disease is an active endeavour, not the result of happenstance.

Unfortunately, inferring the presence of a participant fulfilling an agentive role is not always as straightforward. Consider (16) below.

(16) Marc a pas de chance.
Marc have.PR not of chance
On l'a trouvé juste à ce moment-là.
INDEF him have.PR find.PPT just at that moment-this
'Marc is not lucky. Somebody found him just at that moment'

The described scene does not strongly suggest an agentive participant; nonetheless, (16) is unexpectedly good. A possible explanation is that trouver 'to find' often contextually implicates an active stance on the part of its subject's referent. In the case of (16), for example, those who found Marc are implicated to have acted upon finding him and to the extent that this resulting action is judged part of the finding event itself, speakers might use ultra-indefinite on. This account receives some support by the strongly degraded grammaticality of (17). By contrast to trouver, tomber sur 'to stumble upon' focuses exclusively on the unplanned event and does not suggest that any action resulted from it. We therefore expect speakers in this case to judge ultra-indefinite on much worse than an ordinary indefinite such as quelqu'un. This prediction is borne out.

(17) a. Marc a pas de chance. On est tombé sur lui juste à ce moment-là.
Marc have.PR not of chance INDEF be.PR fall.PPT on him just at that moment-this
'Marc is not lucky. Somebody stumbled upon him just at that moment'

b. Marc a pas de chance. Quelqu'un est tombé sur lui juste à ce moment-là.
Marc have.PR not of chance INDEF be.PR fall.PPT on him just at that moment-this
'Marc is not lucky. Somebody stumbled upon him just at that moment'

To conclude, pace Legendre, the constraint on indefinite uses of on is semantic in nature. They must denote an (implied) 'active', intentional participant in the situations denoted by sentences of which they are the subject.

1.3 The discourse inertness of on

Let's now turn to the third and final property of indefinite uses of on which is of concern to this paper. Simply put, the denotatum of the semantic argument satisfied by indefinite on cannot be directly referred back to. It is discursively inert. The contrasts between (18) and (19) or (20) and (21) illustrate the property. Only the denotatum of quelqu'un can be the target of subsequent pronominal reference.

(18) *On a tué la présidente.
INDEF have.PR kill.PPT the president
Il était du Berry, paraît-il.
he be.PST from.the Berry, seem.PR-it
'Someone killed the president. He comes from the Berry, it seems'
or 'The president was killed. He comes from Berry, it seems.'

Ultra-indefinite on shares its discourse inertness with generic uses of on. The latter's discourse inertness might be due to the absence of a genetically interpreted singular pronoun in French (see section 2.2 for a similar account of parallel facts for Italian generic uses of the reflexive si). But no comparable explanation is forthcoming for the non-generic, ultra-indefinite on; French has several individual denoting pronouns.
Quelqu’un a tué la présidente.
INDEF have.PR kill.PPT the president
Il était du Berry, paraît-il.
he be.PST from.the Berry, seem.PR.it
‘Someone killed the president. He comes from the Berry, it seems.’

On est encore entré dans mon bureau.
INDEF be.PR again go-in.PPT in my office
C’est lui qui a dû laisser
it be.PR him/her who have.PR must.PPT leave.INF
ces marques sur le tapis.
these marks on the carpet
‘Someone went into my office again. He must be the one who left these marks on the carpet.’

Quelqu’un est encore entré dans mon bureau.
INDEF be.PR again go-in.PPT in my office
C’est lui qui a dû laisser
it be.PR him/her who have.PR must.PPT leave.INF
ces marques sur le tapis.
these marks on the carpet
‘Someone went into my office again. He must be the one who left these marks on the carpet.’

Examples such as (22) seem to violate the just mentioned discourse inertness of indefinite on.

On a tué le président.
INDEF have.PR kill.PPT the president
Le meurtrier était du Berry.
the murderer be.PST from the Berry
‘The president was killed. The murderer was from the Berry.’

But I suggest that the anaphoric relation between le meurtrier and on in this example is not direct. It arises through inferences. More precisely, the NP le meurtrier in (22) contains an event variable in its restriction (assuming, rather uncontroversially, that the semantic representation of meurtrier is roughly ‘x that murdered/murders y’). So does the ellipsed relative clause of (23), a sentence which some speakers find marginally acceptable.

In both examples, to insure text cohesion, the event variable introduced by the second sentence must be equated with that introduced by tué in the preceding sentence. The same murder is under discussion in both. Now, since the two events are equated, the fillers of the corresponding semantic roles must also be identical. The identification of the referent of le meurtrier with that of on thus follows from inference, one necessary to preserve text cohesion that the two events are identical, one ‘logical’ (that two identical events have identical participants). If this analysis is correct—namely that an intermediary inferential process is responsible for the intuitive connection between the denotatum of on and that of le meurtrier in (22)—(22) and (23) do not invalidate the postulated discourse inertness of indefinite on.

Note that the discourse inertness of on is not confined to multi-clausal discourses. It also holds within a single sentence where pronouns cannot refer back to the semantic argument satisfied by ultra-indefinite on either, as illustrated in (24)-(25).

*On a dû dire qu’il a raison.
INDEF have.PR must.PPT say.INF that he have.PR reason
‘Someone must have said that he was right’ (adapted from Chierchia 1995)

Quelqu’un a dû dire
INDEF have.PR must.PPT say.INF
qu’il a raison.
that he have.PR reason
‘Someone must have said that he was right’

I close this section by pointing out the strong similarities between French ultra-indefinite on and (prototypical) short passives. Note first that the discourse inertness of on has a parallel in the short passive English translation of (18). Albeit not described in those terms, the discourse inertness of on echoes the well-known backgrounding effect of passives. Furthermore, on is restricted to ‘active scenes’, as we saw

See Langacker and Munro 1975, Kirsner 1976, Givón 1984, among many others. Givón 1995’s claim that agents in passive clauses have low topic persistence is very similar to what I call discourse inertness, but for the fact that in the case of on, the topic persistence is not low, but zero.
2 A DRT account of ultra-indefinites

2.1 Different roles of NP arguments

In the last section, I presented three facts regarding the French ultra-indefinite on construction: (i) it constitutes an independent construction (it cannot be reduced to a variant of a generic reading); (ii) Legendre's observations concerning its restricted context of use should be recast in semantic terms (on must satisfy an agentive role in the scene described by the sentence of which it is the subject); (iii) ultra-indefinite on is discursively inert (it neither refers back to a previous introduced discourse term; nor can it be referred back to by subsequent definite NP's). In the second part of this paper, I focus on this last property. My point will be that its discourse behavior receives an easy account within Discourse Representation Theory (hereafter DRT). More generally, I will suggest that dynamic approaches to meaning such as Discourse Representation Theory (Kamp 1981, Kamp and Reyle 1993) or File Change Semantics (Heim 1982) receive support from the existence of discursively inert NP's like ultra-indefinites.

The key to an adequate account of 'discourse inertness' is the realization that we need to separate the various roles argument NP's can play. Indeed, we must distinguish three possible functions of NP's or pronouns: the introduction of new discourse terms to which subsequent NP's can refer back; the satisfaction of one of a predicate's arguments; finally the introduction of a restriction on the semantic argument they satisfy. In many languages, these three functions coalesce. In (26), for example, the NP a man satisfies the theme semantic role of came. It also introduces a discourse referent to which the pronoun he can anaphorically refer. Finally, it restricts the model-theoretic interpretation of this discourse referent to men. What indefinite on shows is that NP's can also dissociate these functions. We need our semantic theory to do likewise.

(26) A man came in. He was happy.

This division between the roles argument NP's can play is not new. It is part of the motivation behind several so-called 'dynamic' models of meaning, in particular Discourse Representation Theory and File Change Semantics (op. cit.). Both approaches distinguish between the discourse referential and argument roles of NP's. Linear DRT as proposed in Zeevat 1989 makes this division particularly clear. Its semantic rep-
what happens in the case of ultra-indefinite on, I claim. By contrast to quelqu'un, on does not introduce a discourse referent, even though its use discharges the agentive semantic role of the predicate it complements. Since the indefinite quelqu'un (but not the ultra-indefinite on) introduces a discourse referent, quelqu'un (but not on) can be followed by an anaphoric element. The crucial difference between the semantic contributions of on and quelqu'un is represented in (29a) and (29b), which provide a (simplified) semantics for (18) and (19) respectively. (30a) and (30b) present the respective semantics of on and quelqu'un which give rise to these two distinct logical forms. Finally, (31b) shows that the same analysis applies to short passives to provide a model of the discourse inertness of their backgrounded external argument.

(29) a. \( y \land \text{president}(y) \land y = p \land \text{killed}(x,y) \land z \land z = t \land \text{from}(z,b) \)
   b. \( x \land y \land \text{president}(y) \land y = p \land \text{killed}(x,y) \land z \land z = x \land \text{from}(z,b) \)

(30) a. 'on' translates as '\( \lambda Q(\text{human}(v) \land Q(v)) \)' b. 'quelqu'un' translates as '\( \lambda Q(x \land \text{human}(x) \land Q(x)) \)'

(31) a. *La présidente a été tuée the.FEM president have.PRT killed.PRT
Il était du Berry, paraît-il.
he was.PST from.the Berry say.PRT it
'The [woman] president was killed. He was from the Berry, it seems'
   b. \( y \land \text{president}(y) \land y = p \land \text{killed}(x,y) \land z \land z = t \land \text{from}(z,b) \)

Because on does not introduce a discourse referent, as quelqu'un does, as shown in (30a), \( z \), the discourse referent introduced by the pronoun \( i \) must be resolved to a discourse referent \( t \) different from the denotatum of on. The unfelicity of (18) under the assumed interpretation thus follows from the absence of an appropriate antecedent for the anaphor \( i \). The contrast in the discourse behavior of on and quelqu'un provides startling confirmation for DRT's main contention that the semantic representation of utterances must keep track not only of predicative conditions restricting the common ground shared by speech participants, but also of discourse referents available for anaphora resolution. Argument NP's can contribute to the former without contributing to the latter.

2.2 Comparison with Chierchia's account

The account of ultra-indefinites I just gave is similar to the recent, independent account of Italian arbitrary \( si \) presented in Chierchia 1995. \( Si \), according to Chierchia, induces an existential quantification over the external-argument of verbs, but the variable bound by the existential quantifier is distinguished. He calls it \( x_{arb} \). The semantics of the first sentence of (32a) in his analysis is shown in (32b).

(32) a. Si canta.
   'People sing.'
   b. \( \exists x_{arb}(\text{sing}(x_{arb})) \)

The interpretation of the distinguished variable introduced by arbitrary \( si \) is then handled through a separate clause of the interpretation function which restricts it to groups of humans. Because of its distinct mark, no subsequent definite NP can be anaphoric to the existentially quantified variable introduced by arbitrary \( si \). No (definite) NP bears the appropriate mark.

Not all instances of anaphoric reference are excluded with \( si \), as Chierchia shows. Reflexive binding, in particular, is possible. Chierchia suggests an analysis of reflexive binding in terms of semantic argument reduction, after Bach and Partee 1980. A VP like hit himself in such an analysis is analyzed semantically as \( \lambda z(\text{hit}(x,z)) \). The fact that the predicate's two argument positions are filled by the same variable insures that the arb sortal restriction is met by the anaphor as well as its antecedent. This analysis can easily be adapted to the analysis I put forth to account for similar data involving French on (see (33) below). We only need assume that the translation of the predicate se laver is as shown in (34); the meaning of (33) is then derived compositionally as before.

(33) On s' est encore lavé
   INDEF REFL be.PRT again wash.PRT
   dans ma salle de bain
   in my room of bath
   'Somebody washed in my bathroom again.'

(34) 'se laver' translates as '\( \lambda v(\text{wash}(v,v)) \)'

As the reader can see, my account is similar to Chierchia's. On, like arbitrary \( si \), does not introduce active discourse referents as pegs for future anaphoric NP's. But whereas in Chierchia's account discourse inertness is achieved by the introduction of a distinguished variable whose sort no subsequent definite NP can match, discourse inertness in my account follows from the absence of a discourse-referent-introducing clause in the semantics of ultra-indefinite NP's. Leaving aside the point made in section 1.1, there is no distinct descriptive difference between the two accounts. They both insure that the denotata of on or the subject of \( si_{arb} \) are inactive for anaphoric reference.
Despite their identical empirical coverage, there are (at least) three respects in which Chierchia's solution is less optimal than the one presented in section 2.1. Firstly, French indefinite on as well as short passives demonstrate that discourse inactivity is not tied to a group interpretation, contra what Chierchia's analysis suggests. Of course, we could introduce a separate distinguished variable for the existential quantification induced by passives as well as for those cases where the interpretation of on is not restricted to groups. But the sortal restriction on that variable would not be motivated by an independent property of their interpretation. The analysis I proposed does not face this difficulty, since it does not rely on any new logical term requiring independent justification. Secondly, the solution I put forth is independently motivated: it simply exploits the distinction between discourse referents and predicative conditions within DRT/File Change Semantics—a distinction which is independently needed to model the semantics of other anaphoric processes, as is well-known. Thirdly, even if we were to introduce a (separate) distinguished variable for passives (and on), it is unclear how we can get agented passives, such as (35) to work compositionally in Chierchia's model.

(35) a. The president was killed by a gardener
    b. \[ \exists x_{\text{pass}} \text{kill}(x_{\text{pass}},p) \land \text{gardener}(x) \] \[ (x_{\text{pass}} \neq x) \]

The agent semantic role of the morphological passive killed is filled by an existentially quantified distinguished variable, say \( x_{\text{pass}} \), by hypothesis. But the object of the by-phrase is an ordinary NP—that is, it introduces a non-distinguished variable. The two variables do not have matching sorts and composing the passive participle with the by phrase should be impossible. Since it does not rely on distinguished variables, the analysis proposed in 2.1 is not subject to this difficulty.

3 Conclusion

In this paper, I have argued that we need to recognize a new kind of (non-quantificational) NP, neither definite nor indefinite in the usual sense. I call such NPs ultra-indefinites. Their semantics is similar to the actor grounding function of short passives: they satisfy a verb's external-argument role without introducing a discourse term for further reference. Contra Chierchia's analysis of arbitrary si in Italian, the proposed analysis of ultra-definites does not require the introduction of sorted variables. We need only exploit the difference between discourse referents and conditions in DRT. Ultra-indefinites combine with an unsaturated predicate to form a proposition, but do not introduce a discourse referent clause. I argued that this analysis is superior to Chierchia's in that it does not require adding several otherwise unmotivated sorted variables, and allows for a compositional analysis of agented passives. But the striking parallel between on and short passives raises an interesting question which I would like to touch upon in conclusion: what is a passive construction?

Ultra-indefinite on shows that no simple answer exists to this question. Its discourse inactivity and restriction to agentive arguments suggests we should include it in the class of functional passives. But, morphosyntactically, indefinite on is clearly not passive-like. A verb whose subject is on is morphologically active. Moreover, on cannot be assumed to move into its subject position from a 'deep' object position, since verbs with which it combines can still license objects in their usual postverbal position (see (8a) e.g.), where presumably they bear accusative case. Neither promotional nor deontological analyses of morphosyntactic passives could therefore provide a satisfactory analysis of on. We can still capture the functional similarities between ultra-indefinite on and more common morphosyntactic passives and define most generally a passive construction as any rule, schema, or category whose effect is to satisfy a predicate's external-argument valence requirement without introducing a corresponding discourse referent.

Interestingly enough, not all current syntactic theories are equally apt at recognizing the existence of such a semantic construction across diverse morphosyntactic reflexes. To simplify, this cross-linguistically salient functional notion of passives is easily defined as an abstract semantic construction within a sign-based theory of grammar, be it Head-Driven Phrase-Structure Grammar, Construction Grammar, or Cognitive Grammar. It could also be defined as a particular rule within a derivation-tree in a Montague-grammar style framework (see Partee 1997 for a similar point regarding a possible cross-linguistic definition of questions). But it is hard to capture in frameworks which map syntax and semantics globally and not piecemeal (rule by rule or construction by construction). Of course, the desire to capture the commonality between functional passives is hardly a cogent argument for 'localist' approaches to the interface between syntax and semantics; after all, this advantage might come at a prohibitive cost. But the similarity between indefinite on and passives points out some interesting consequences these general architectural decisions entail.

References


