

Impersonal pronouns and coreference: two case studies

Denis Creissels
University of Lyon
denis.creissels@univ-lyon2.fr
<http://deniscreissels.fr>

1. Introduction

What motivated my interest in the coreference properties of impersonal pronouns was the hypothesis that the coreference properties of impersonal pronouns such as French *on* or German *man* might be different from those of impersonal markers that do not originate from pronouns, like those occurring in unspecified subject constructions of the type found for example in Polish, in Finnic languages, or in Celtic languages.¹ The data I gathered showed that things are much more complex than I imagined at first, but at the same time convinced me that the description of the coreference properties of various types of unspecified and/or implicit subjects in individual languages constitutes an important aspect of the study of impersonality in a cross-linguistic perspective.

My talk consists of two parts. The first part is based on an unpublished paper I wrote three years ago about the coreference properties of French *on* (Creissels 2008), in which I argue that variations in the coreference properties of *on* are crucial to a precise characterization of the various uses of this pronoun. In the second part, I present the impersonal use of the second person pronoun in Mandinka, in which this pronoun exhibits coreference properties somewhat unexpected, given what is known about the impersonal use of second person pronouns in more familiar languages.

2. The coreference properties of French *on*

2.1. Introductory remarks

The account of the coreference properties of *on* proposed in this section builds on work by Koenig 1999 and Koenig & Mauner 1999, who within the framework of Discourse Representation Theory argue that *on* does not introduce a ‘discourse marker’, and therefore is not available for certain types of anaphoric reference which are possible with

¹ On the typology of impersonal constructions, see Creissels 2007, Siewierska 2008, Malchukov & Ogawa 2011. On impersonal pronouns, see Chierchia 1995, Zifonun 2000 Egerland 2003, Prince 2003, D’Alessandro & Alexiadou 2003 & 2006, Moltmann 2006, Prince 2006, Cabredo Hofherr To appear, and from a historical point of view Jónsson 1992, Welton-Lair 1999, Egerland 2006, Giacalone & Sansò 2007a & 2007b. On impersonal uses of personal pronouns, see Kitagawa & Lehrer 1990. On ‘arbitrary null pronominals’, see Cinque 1988, Condoravdi 1989, Caselles Suárez 1996, Alonso-Ovalle 2000, Cabredo Hofherr 2003, Bhatt & Pancheva 2004. On similar constructions using various types of morphological marking (reflexive marking, passive marking, or dedicated impersonal marking), see among others Chierchia 1995, Dobrovie-Sorin 1998, Blevins 2003, and on individual languages Noonan 1994 & 2001 (Irish), Hewitt 2001 (Breton), Kibort 2003 (Polish), Słoiń 2003 (Polish), Manninen & Nelson 2004 (Finnish), Kaiser & Vihman 2006 (Finnish & Estonian), D’Alessandro 2007 (Italian). On the history of *on* and its cognates in other Romance varieties, see Giacalone & Sansò 2007a & 2007b

indefinite pronouns truth-conditionally equivalent to *on*. But their analysis concentrates on the ‘existential’ uses of *on*, and on certain aspects of its referential behavior only.

This section is organized as follows. In Subsection 2.2, I examine the morphosyntactic, semantic and discursive properties of *on* that remain constant in all its uses. Subsection 2.3 is devoted to the distinction between 1st person plural *on* and all the other uses of *on*, subsumed under the term ‘impersonal *on*’. Subsections 2.4 & 2.5 examine two particular varieties of *on* that sharply differ in their coreference properties, ‘existential *on*’ and ‘gnomic *on*’. Subsection 2.6 discusses the division of the other uses of impersonal *on* into those characterized by discourse inertness and those characterized by discourse availability. Subsection 2.7 puts forward some concluding remarks.

2.2. General properties of *on*

2.2.1. The morphosyntactic nature of *on*

Regardless of the variations that may affect its interpretation, *on* unquestionably belongs to a paradigm of subject pronominal clitics including also *je* (1sg), *tu* (2sg), *il* (3sgm), *elle* (3sgf), *nous* (1pl), *vous* (2pl), *ils* (3plm), and *elles* (3plf), as well as a clitic variant of the neuter demonstrative *cela* ~ *ça* ‘that’.² Like other subject pronominal clitics, *on* normally occurs to the left of the verb, in a position apparently similar to that of subject NPs, but in certain conditions, for example in the interrogative construction illustrated by Ex. (1), subject pronominal clitics (including *on*) immediately follow the verb (or the auxiliary, in analytical tenses), in a position in which NPs and non-clitic pronouns cannot occur.³

- (1) a. *Comment as-tu réussi à ouvrir cette porte ?*
 How have-you managed to open this door
 ‘How did you manage to open this door?’
- b. *Comment a-t-il réussi à ouvrir cette porte ?*
 How has-he managed to open this door
 ‘How did he manage to open this door?’
- c. *Comment a-t-on réussi à ouvrir cette porte ?*
 How has-MAN managed to open this door
 ‘How did they_{arb} manage to open this door?’
- d. **Comment a Jean réussi à ouvrir cette porte ?*
 How has Jean managed to open this door
 Intended: ‘How did Jean manage to open this door?’
 (OK: *Comment Jean a-t-il réussi à ouvrir cette porte ?*)

Like the other subject clitics, *on* in preverbal position can only be separated from the verb by the accusative or dative clitics, the reflexive clitic *se*, the locative clitic *y*, the ablative clitic *en*, and the negative marker *ne* – Ex. (2), unlike subject NPs and non-clitic pronouns

² In this respect, French *on* is very different from Italian impersonal *si*, sometimes analyzed as a subject clitic similar to French *on*: on the one hand, Standard Italian has no clitic variant of the personal pronouns in subject role with which impersonal *si* could be compared directly, and on the other hand, the position of accusative or dative clitics *before* impersonal *si* differs from what is observed in the preverbal clitic clusters of other Romance varieties.

³ Some of the examples used in this paper have been constructed, others have been taken from French grammars and dictionaries or observed in conversations, broadcasting, newspapers, etc., but all of them have been discussed with other native speakers of French, and I have retained only those for which my consultants and I agreed on relatively clear-cut acceptability judgments.

in subject role, which can for example be separated from the verb by parenthetical clauses – Ex. (3).

(2) a. *Je ne lui en parlerai pas.*
 I not to.him of.it will.speak not
 ‘I will not mention it to him.’

b. *On ne lui en parlera pas.*
 MAN not to.him of.it will.speak not
 ‘It will not be mentioned to him.’

(3) a. *Marie, je l’ ai remarqué, n’ aime pas être contredite.*
 Mary I it have noticed not likes not be contradicted
 ‘Mary, as I noticed, does not like to be contradicted.’

b. **Tu, je l’ ai remarqué, n’ aimes pas être contredit.*
 You I it have noticed not like not be contradicted
 Intended: ‘You, as I noticed, do not like to be contradicted.’

(OK : *Toi, je l’ai remarqué, tu n’aimes pas être contredit* – *toi* is the independent 2nd person pronoun)

c. **On, je l’ ai remarqué, n’ aime pas être contredit.*
 MAN I it have noticed not likes not be contradicted
 Intended: ‘People, as I noticed, do not like to be contradicted.’

(OK : *Les gens, je l’ai remarqué, n’aiment pas être contredits.* – *les gens* = ‘people’)

Verbs hosting *on* in the subject clitic slot invariably show 3rd person singular agreement, not only in the ‘existential’ use of *on* illustrated by Ex. (4), but also in all of its other possible uses.

(4) a. *J’ ai réussi à ouvrir cette porte.*
 I have managed to open this door
 ‘I managed to open this door.’

b. *Tu as réussi à ouvrir cette porte.*
 You have managed to open this door
 ‘You(sg) managed to open this door.’

c. *Jean / Il / On a réussi à ouvrir cette porte.*
 Jean / he / MAN has managed to open this door
 ‘Jean / He / Someone managed to open this door.’

2.2.2. *On*, verbal valency, and the [+human] feature

With the only exception of 1st person plural *on* (see section 2.3.2), clauses in which *on* occupies the subject clitic slot cannot include a topicalized NP representing the subject argument, and the presence of an adjunct representing the subject argument (like the “agent phrase” in passive constructions) is also excluded. But in spite of that, a general property of *on* is that its presence in the clitic subject slot never implies a modification in the valency of the verb. Whatever the particular reading of *on* triggered or licensed by the context, the subject argument of a verb hosting *on* in the clitic subject slot remains semantically present, as proved by the possible presence of agent-oriented adverbials, and no modification is observed in the expression of the other arguments – Ex. (5).

- (5) a. *Jean a ouvert la porte soigneusement.*
Jean has opened the door carefully
'Jean opened the door carefully.'
- b. *On a ouvert la porte soigneusement.*
MAN has opened the door carefully
'The door has been opened carefully.'
- c. * *On a ouvert la porte par Jean.*
MAN has opened the door by John
Intended: 'The door has been opened by John.'
OK: *La porte a été ouverte par Jean.* (passive)

Another general property of *on* is that, whatever its precise value, it imposes the feature [+human] (or perhaps rather [+conscious]) on the subject argument of the verb.

2.2.3. *On and control*

The variations in the possible interpretations of *on* do not affect the behavior of the subject argument in control constructions, in particular in constructions involving complement infinitives. As shown by Ex. (6), in such constructions, the subject argument of verbs hosting *on* in the subject clitic slot invariably behaves like canonical subjects.

- (6) a. *Jean t' a critiqué.*
Jean you has criticized
'Jean criticized you'
- b. *Jean a essayé de te critiquer.*
Jean has tried to you criticize
'Jean tried to criticize you.'
- c. *On t' a critiqué.*
MAN you has criticized
'They_{arb} criticized you' (= 'You were criticized')
- d. *On a essayé de te critiquer.*
MAN has tried to you criticize
'They_{arb} tried to criticize you.'

2.3. First person plural *on* and impersonal *on*

2.3.1. Preliminary remarks

In this analysis of the coreference properties of *on*, I will not assume an a priori classification of the uses of this pronominal clitic, but rather try to show how the observation of the coreference properties of *on* can contribute to such a classification. However, the distinction between 1st person plural *on* and the other uses of *on* is so clear-cut that it can conveniently be established before tackling the analysis of the other varieties of *on*, subsumed here under the label 'impersonal *on*'.

2.3.2. *On as a 1st person plural pronoun*

In Colloquial French, *on* has a fully grammaticalized use as 1st person plural subject clitic, in which it simply substitutes for the subject clitic *nous* of Standard French, but neither for *nous* as an accusative/dative clitic nor for *nous* as an independent pronoun – Ex. (7).

- (7) a. *Nous aussi, nous y étions ; tu ne nous as pas vus ?*
 we too we there were you not us have not seen
 ‘We too were there, didn’t you see us? (Standard)
- b. *Nous aussi, on y était ; tu ne nous as pas vus ?*
 we too MAN there was you not us have not seen
 ‘We too were there, didn’t you see us? (Colloquial)
- c. **On aussi, on y était; tu n’on a pas vus ?*

Not surprisingly, the use of *on* as a 1st person plural subject clitic is not always easy to distinguish from ‘universal’ *on* on a purely semantic basis, but Ex. (8) illustrates *on* unambiguously referring to a specific group of persons including the speaker.

- (8) *Avec Jean, on ira au théâtre ce soir.*
 with Jean MAN will.go to.the theater this evening
 ‘Jean and I will go to the theater tonight’

Morphosyntactically, like all other varieties of *on*, 1st person plural *on* combines with verbs in the 3rd person singular and triggers the choice of the 3rd person form of the reflexive clitic *se*. But in all other respects, it triggers the choice of unambiguous 1st person plural forms: the corresponding possessive is 1st person plural *notre*, and the corresponding form of the intensive pronoun is 1st person plural *nous-mêmes*. By contrast, in the other uses of *on* that allow the reflexive binding of possessives and the use of intensive pronouns, in the same way as with the implicit subject of uncontrolled infinitives, the possessive is 3rd person singular *son*, and the intensive pronoun is *soi-même*, whose use tends to be restricted to unspecified subjects. Ex. (9) & (10) illustrate the contrast between 1st person plural *on* and gnomic *on* (which will be described in detail in section 2.5), and the similarities between the behavior of gnomic *on* and that of the implicit subject of uncontrolled infinitives.⁴

- (9) a. *Nous avons envoyé nos enfants à la campagne.*
 we have sent our children to the countryside
 ‘We have sent our children to the countryside’ (Standard)
- b. *On a envoyé nos enfants à la campagne.*
 MAN have sent our children to the countryside
 ‘We have sent our children to the countryside’ (Colloquial)
- c. *On aime ses enfants.*
 MAN loves his/her children
 ‘One loves one’s children’ (gnomic *on*)
- d. *Il est normal d’aimer ses enfants.*
 it is normal to love his/her children
 ‘It is normal to love one’s children.’

- (10) a. *Nous nous défendrons (nous-mêmes).*
 we us will.defend ourselves
 ‘We will defend ourselves.’ (Standard)

⁴ Note however that the presence of the 1st person plural possessive does not exclude possible ambiguities with other varieties of impersonal *on*. For example, another possible reading of sentence (8b) is ‘They_{arb} have sent our children to the countryside’ (or ‘Our children have been sent to the countryside’).

- b. *On se défendra (nous-mêmes).*
MAN his/herself will.defend ourselves
'We will defend ourselves.' (Colloquial)
- c. *Quand c' est nécessaire, on se défend soi-même.*
when it is necessary MAN his/herself defends oneself
'When it is necessary, one defends oneself.' (gnomic *on*)
- d. *Se défendre soi-même n' est pas facile.*
his/herself defend oneself not is not easy
'To defend oneself is not an easy task.'

It is also interesting to observe, that 1st person plural *on* triggers 3rd person *singular* agreement of finite verb forms, but *plural* agreement of adjectives and participles.

2.3.3. Impersonal *on*

In the terminology used here, 'impersonal *on*' is a cover term for all the uses of *on* in which *on* does not substitute for the 1st person plural subject clitic *nous* of Standard French. At first sight, this terminological choice may seem to be in contradiction with the well-known fact that some occurrences of *on* may be truth-conditionally equivalent, not only to 1st person plural, but also to 1st person singular, second person, or 3rd person pronouns – see 6.1.2 & 6.2.3 for more details. But the intuition of French speakers, reflected in the comments of French grammars and dictionaries, is that such uses of *on* are 'stylistically' marked (i.e., they involve marked discourse strategies), in contrast with 1st person plural *on*, whose use depends exclusively on speech register. In Colloquial French, 1st person plural *on* is absolutely neuter with respect to speech strategy.

Crucially, this analysis is supported by a very simple and general criterion setting 1st person plural *on* apart from all other varieties of *on*, including those that can be paraphrased by personal pronouns other than 1st person plural: as illustrated by Ex. (7b) above, 1st person plural *on* occupying the subject clitic slot can co-occur with the independent form of the 1st person plural pronoun in topic position, whereas in all of its other uses (including those spontaneously interpreted by French speakers as referring to speech act participants or to some specific individual present in the situation), *on* excludes the presence of a topicalized pronoun or NP referring to the subject argument.

In other words, 1st person plural *on* is the only variety of *on* that does not exclude *naming* the subject argument by means of a topicalized pronoun or NP. This justifies grouping all the other varieties of *on* under the label 'impersonal', in spite of the fact that they may occur in contexts in which there is no ambiguity over the identification of the subject argument.

2.4. Coreference properties of existential *on*

2.4.1. Existential *on*

On referring to an unspecified subject can sometimes be truth-conditionally equivalent to *quelqu'un* 'someone' or *des gens* 'some people' ('existential *on*', as in Ex. (11)).

- (11) a. *On frappe à la porte.*
MAN knocks at the door
'Someone is knocking at the door.'
- b. *On a retrouvé ton porte-monnaie.*
MAN has found your purse
'Your purse has been found.'

- c. *On a dormi dans ce lit.*
MAN has slept in this bed
'This bed has been slept in.'

Cabredo Hofherr 2003 discusses cross-linguistic evidence supporting the distinction between several semantic sub-types of (quasi-)existential readings of unspecified subjects: *specific existential* (temporally anchored, as in *On frappe à la porte*), *vague existential* (only implying that an event of the type described has taken place, as in *On a retrouvé ton porte-monnaie*), and *inferred existential* (characterized by inference of an event from its perceivable results, as in *On a dormi dans ce lit*). However, I have found no evidence that the coreference properties of *on* could be sensitive to these distinctions.

The main point in the study of existential *on* is that the equivalence between *on* and *quelqu'un* 'someone' or *des gens* 'some people' suggested by sentences such as those of Ex. (11) above must be relativized. This equivalence is valid in contexts implying no reference to a particular group of people to which the agent belongs, but does not extend to contexts implying that the agent belongs to a particular group of people. In such contexts, as illustrated by Ex. (12), *on* implies nothing about the extension of the subject argument, contrary to *quelqu'un* / *des gens*, which suggest that only a relatively low proportion of the persons that were present took part in the event. Sentence (12b) is OK not only for situations that could be described by sentences (12c-d), but also for situations in reference to which it would be possible to use sentence (12e).

- (12) a. *Tu as été critiqué à la réunion.*
you have been criticized at the meeting
'You have been criticized at the meeting.'
- b. *On t' a critiqué à la réunion*
MAN you has criticized at the meeting
same meaning as (a)
- c. *Quelqu'un t' a critiqué à la réunion.*
someone you has criticized at the meeting
'Someone criticized you at the meeting.'
- d. *Des gens t' ont critiqué à la réunion.*
some people you have criticized at the meeting
'Some people criticized you at the meeting.'
- e. *Tout le monde t' a critiqué à la réunion.*
everybody you has criticized at the meeting
'Everybody criticized you at the meeting.'

When a passive formulation is possible, as in Ex. (12), it provides a much better equivalent of 'existential *on*' than formulations using indefinite pronouns or NPs: 'existential *on*' allows for the same indeterminateness about the subject argument as agentless passives. In other words, *existential* in the expression 'existential *on*' must be taken in its logical sense 'for at least one person', which contrary to linguistic expressions such as *quelqu'un* 'someone' or *des gens* 'some people' does not imply a relative limitation of the set of the persons taking part in the event.

Moreover, existential *on* sharply contrasts with *quelqu'un* in its scope properties. In negative sentences, as illustrated by Ex. (13), *quelqu'un* and *on* are not equivalent.

- (13) a. *Quelqu'un ne t' a pas critiqué.*
 someone not you has not criticized
 'Someone did not criticize you.' i.e. $\exists x$, Neg [criticize(x, you)]
- b. *On ne t' a pas critiqué*
 MAN not you has not criticized
 'No one criticized you', 'You were not criticized', i.e. Neg [$\exists x$, criticize(x, you)]

Similarly, when a temporal adjunct implying repetition is present in postverbal position, *quelqu'un* in subject role implies that the same person is involved in the successive occurrences of the event (in logical terms, the iterative operator is under the scope of the existential operator), whereas *on* carries no such entailment – Ex. (14).

- (14) a. *On t' a appelé plusieurs fois.*
 MAN you has called several times
 'There were several phone calls for you', i.e. Iter [$\exists x$, call(x, you)]
- b. *On t' a appelé plusieurs fois,*
 MAN you has called several times
mais ce n' était pas la même personne.
 but it not was not the same person
 'There were several phone calls for you, but it was not the same person.'
- c. *Quelqu'un t' a appelé plusieurs fois.*
 someone you has called several times
 'Someone called you several times.', i.e. $\exists x$, Iter [call(x, you)]
- d. **Quelqu'un t' a appelé plusieurs fois,*
 someone you has called several times
mais ce n' était pas la même personne.
 but it not was not the same person

2.4.2. The discourse inertness of existential on

Koenig 1999 and Koenig & Mauner 1999, whose study of the discourse properties of *on* concentrates on this type of use, show that the definite pronoun *il* 'he' can refer back to *quelqu'un* 'someone', but not to existential *on*; similarly, the definite plural pronoun *ils* 'they' can refer back to *des gens* 'some people', but not to existential *on*; note however that the inacceptability is less strong than with *il* 'he' – Ex. (15).

- (15) a. *Quelqu'un_i t' a demandé, mais il_i n' a pas pu attendre.*
 someone you has asked but he not has not been.able (to)wait
 'Someone_i asked for you, but they_i were not able to wait.'
- b. **On_i t' a demandé, mais il_i n' a pas pu attendre.*
 MAN you has asked but he not has not been.able (to)wait
 Intended: 'Someone_i asked for you, but they_i were not able to wait.'
- c. *Des gens_i t' ont demandé, mais ils_i n' ont pas pu attendre.*
 some people you have asked.PL but they not have not been.able (to)wait
 'Some people_i asked for you, but they_i were not able to wait.'
- d. ??*On_i t' a demandé, mais ils_i n' ont pas pu attendre.*
 MAN you has asked but they not have not been.able (to)wait
 Intended: 'Some people_i asked for you, but they_i were not able to wait.'

The same contrast is observed, not only within the frame of multi-clausal discourse, but also within the frame of a single sentence – Ex. (16).

- (16) a. *Quelqu'un_i a dit qu' il_i pouvait faire ça.*
 someone has said that he was.able (to)do that
 'Someone_i said that they_i were able to do that.'
- b. **On_i a dit qu' il_i pouvait faire ça.*
 MAN has said that he was.able (to)do that
 Intended: 'Someone_i said that they_i were able to do that.'
 OK with disjoint reference: 'Someone_i said that he_j was able to do that.'

As shown by Koenig 1999, examples such as (17) do not really violate the discourse inertness of existential *on*, since the anaphoric relation in such a configuration is not direct. It arises from inferences, similarly to what may occur with the implicit agent of short passives.

- (17) *On_i a tué le président ; le meurtrier_i était du Berry.*
 MAN has killed the president the murderer was from.the Berry
 'The president was killed; the murderer was from the Berry.'

Similarly, the discourse inertness of existential *on* (i.e., its inability to take part in anaphoric relations other than those arising from inferences) is not contradicted by the possibility of coreference with the unexpressed subject of rationale clauses, as in Ex. (18). Here again, this property is shared (at least to some extent) by the implicit agent of short passives.⁵

- (18) *On_i l' a tué pour lui_j prendre_i son_j argent.*
 MAN him has killed in.order.to him take his money.SG
 'He_j was killed to take his_j money.'

Another interesting property of existential *on* is that cross-sentential anaphoric coreference involving existential *on* is normally impossible, not only with 3rd person pronouns, but also with *on* itself – Ex. (19).

- (19) **On_i a tué le président ; on_i était du Berry.*
 MAN has killed the president MAN was from.the Berry
 Intended: 'Someone_i killed the president; he_i was from the Berry.'

In discourse configurations of this type, *on* can be maintained in the first clause only by using an anaphoric expression lending itself to 'identification through accommodation' – Koenig & Mauner 1999 (section 4.2), as illustrated by Ex. (17). Similarly, in the case of Ex. (15), a possible formulation would be *On t'a demandé, mais la personne en question* ('the person in question') *n'a pas pu attendre*.

There are apparent counterexamples, in which *on* can be interpreted as referring back to a previous occurrence of existential *on*, as in Ex. (20a). However, formally identical clause sequences involving two successive occurrences of existential *on* in contexts implying or suggesting disjoint reference are perfectly normal – Ex. (20b). This shows that

⁵ The indexation of *prendre* in this example is intended to reflect the fact that the implicit subject of this infinitive form (which according to some syntactic theories is represented by invisible "PRO") is identified to the unspecified subject of the main verb, encoded by *on*.

on referring back to a previous occurrence of existential *on* is only a possibility in clause sequences in which the second clause does not go beyond the description of a particular aspect or a subsequent stage of the same event.

- (20) a. *On_i a volé ma voiture,*
MAN has stolen my car
mais on_i l' a abandonnée peu après.
but MAN it has abandoned shortly afterwards
 'My car was stolen, but shortly afterwards it was abandoned'
- b. *On_i a volé ma voiture,*
MAN has stolen my car
mais on_j l' a retrouvée peu après.
but MAN it has found shortly afterwards
 'My car was stolen, but shortly afterwards it was found'

By contrast, *on* is ruled out if the second clause clearly expresses an intrinsic property of the unspecified subject of the first clause, i.e., a property independent from the event referred to, as was the case in Ex. (19). Ex. (21) provides an additional illustration of this impossibility: sentence (21b), in which *parler avec un accent* 'speak with an accent' allows for an episodic interpretation, leaving open the possibility that perhaps the person speaking with a German accent just feigned to have this accent, is much better than (20a), in which the choice of *avoir un accent* 'have an accent' suggests that speaking with a German accent is a permanent property of the person who called.

- (21) a. **On_i t' a appelé au téléphone; on_i avait un accent allemand.*
MAN you has called at.the phone MAN had an accent German
 Intended: 'There was a phone call for you; the person in question had a German accent' (OK: *Quelqu'un t'a appelé au téléphone; il avait un accent allemand* 'Someone called you, he had a German accent', or *On t'a appelé au téléphone; la personne en question avait un accent allemand*. 'There was a phone call for you, the person in question had a German accent.')
- b. *On_i t' a appelé au téléphone; on_i parlait avec un accent allemand.*
MAN you has called at.the phone MAN spoke with an accent German
 'There was a phone call for you; the person in question spoke with a German accent.'

The discourse inertness of existential *on* manifests itself, not only in the strategies that used to refer back to a participant whose existence is implied by a previous use of *on*, but also in the relation between existential *on* and the preceding context. The use of *on* does not exclude identifying the subject argument to a participant whose existence is implied, either by a previous use of *on*, as in (20a), or by a previous occurrence of an agentless passive, as in (22a). By contrast, *quelqu'un* cannot refer back to the implicit argument of an agentless passive, as in Ex. (22b).

- (22) a. *Ma voiture a été volée_i,*
my car has been stolen
mais on_{i/j} l' a abandonnée peu après.
but MAN it has abandoned shortly afterwards
 'My car was stolen, but shortly afterwards it was abandoned'

- b. *Ma voiture a été volée_i,*
 my car has been stolen
*mais quelqu'un*_{i/j} l' a abandonnée peu après.*
 but someone it has abandoned shortly afterwards
 'My car was stolen, but someone abandoned it shortly afterwards' – Impossible with the reading 'My car was stolen, but shortly afterwards the thief abandoned it.'

2.4.3. Existential *on* and reflexive/intensifier binding

In this section, I describe a limitation to the coreference possibilities of existential *on* that is not recognized by Koenig & Mauner 1999, who argue that “the referent of *on* can be the target of intrasentential reflexive binding” and that here again, this is in accordance with the common assumption that “cross-sentential pronominal coreference differs from both subject PRO anaphoric identification and intrasentential reflexive binding”. However, the data they use to illustrate reflexive binding are partial, and their relevance to the issue of reflexive binding is questionable.

The point is that the only example of reflexive binding presented by Koenig & Mauner 1999 concerns the so-called reflexive clitic *se*, and is therefore not conclusive for those who think that *se* and its equivalents in other Romance languages are not really involved in syntactic reflexive binding, and should rather be analyzed as the trace of a lexical operation on the valency of the verb.⁶ If we now turn to uncontroversial examples of reflexive binding, what we observe is that possessives, which normally lend themselves to reflexive binding (and can in particular be bound by the implicit subject of uncontrolled infinitives) cannot refer back to existential *on* – Ex. (23).

- (23) a. *Quelqu'un_i t' a laissé son_i adresse.*
 someone you has left his address
 'Someone_i left his_i address for you.'
- b. **On_i t' a laissé son_i adresse.*
 MAN you has left his address
 Intended: 'Someone_i left his_i address for you.'
 OK with the interpretation 'Someone_i left his_i address for you.'

Similarly, unlike *quelqu'un* 'someone', existential *on* cannot be the antecedent of an intensifier – Ex. (24).

- (24) a. *Quelqu'un_i a trouvé lui-même_i la solution.*
 someone has found himself the solution
 'Someone_i has found the solution himself_i.'
- b. **On_i a trouvé lui-même_i / soi-même_i la solution.⁷*
 MAN has found himself / oneself the solution
 Intended: 'Someone_i has found the solution himself_i.'

Curiously, the ban on reflexive binding tends to extend to the implicit subject of infinitives controlled by existential *on*, as in Ex. (25b). However, in such a configuration, the unacceptability is less strong than in (23b), and some speakers at least consider such sentences more or less marginally acceptable.

⁶ Evidence supporting this view is discussed by Alsina 1996 (chapter 6) and Creissels 2006 (chapter 22).

⁷ In addition to intensifiers formed by adding *-même* to personal pronouns, French has an intensifier *soi-même* which, like the reflexive pronouns *soi* from which it is formed, can be bound by generic subjects only.

- (25) a. *Quelqu'un_i t' a appelé sans donner_i son_i nom.*
 someone you has called without giving his name
 'Someone_i called you without giving his_i name.'
- b. *??On_i t' a appelé sans donner_i son_i nom.*
 MAN you has called without giving his name
 'Someone_i called you without giving his_i name.'

2.4.4. Conclusion of section 2.4

Apart from anaphoric relations involving *inference* rather than *coreference* proper and following from the process of *accommodation* analyzed in detail by Koenig & Mauner 1999 within the framework of Discourse Representation Theory, the only anaphoric mechanisms in which existential *on* can assume the role of antecedent are those involving the implicit argument of infinitives in control constructions (2.3) and the reflexive reading of *se* (4.3).⁸

2.5. Coreference properties of gnomic *on*

2.5.1. Gnomic *on*

'Gnomic *on*' refers here to the use of *on* in sentences expressing generalizations devoid of any temporal anchoring about humans in general, or about subgroups of humans whose delimitation may be variously suggested by the context, often (but not necessarily) with a normative flavor – Ex. (26).⁹

- (26) a. *En vieillissant, on a besoin d'aide.*
 in getting.old MAN has need of help
 'When one gets old, one needs help.'
- b. *En Italie, on sait préparer les pâtes.*
 in Italy MAN knows preparing the pasta
 'In Italy, they know how to prepare pasta.'

In Ex. (26b) above, but not in (26a), arbitrary *ils* 'they' provides a possible paraphrase of gnomic *on* (*En Italie, ils savent préparer les pâtes*). The explanation is that arbitrary *ils* implies an exclusive reading (i.e., is limited to generalizations over groups to which the speech act participants do not belong), whereas gnomic *on* is not sensitive to the *inclusive* vs. *exclusive* distinction. For example, (27a) can indifferently be uttered by speakers living in town or in the countryside, whereas (27b) implies that both the speaker and the addressee live in town.

⁸ Although this is not directly relevant to the issue addressed here, it is worth noting that this supports the view that infinitive control and the interpretation of *se* involve *lexical* operations rather than *syntactic* configurations including invisible pronouns, since the invisible pronouns posited in order to explain these mechanisms should be able to resume antecedents that are not accessible to ordinary pronouns.

⁹ The choice of the term *gnomic* rather than *generic* is motivated by the relative imprecision of *generic*, which is not limited to utterances expressing the precise type of meaning considered in this section. The necessity of introducing the narrower notion of gnomicity follows from the fact that, as will be shown in section 2.6.1.1, some uses of *on* that fall under the current definition of genericity have coreference properties different from those found in the use of *on* characterized here as *gnomic*. On genericity, see among others Krifka & al. 1995, Papafragou 1996, Malamud 2006.

- (27) a. *A la campagne, on mange des légumes*
 at the countryside MAN eats some vegetables
qu' on fait pousser soi-même dans son jardin.
 that MAN makes grow oneself in his garden
 'In the countryside, one eats vegetables one grows oneself in one's garden.'
- b. *A la campagne, ils mangent des légumes*
 at the countryside they eat some vegetables
qu' ils font pousser eux-mêmes dans leur jardin.
 that they make grow themselves in their garden
 'In the countryside, they_{arb} eat vegetables they grow themselves in their garden.'

2.5.2. Gnomic *on* and inter-sentential anaphoric processes

Like existential *on*, gnomic *on* is not available as a possible antecedent for 3rd person pronouns, but sequences of clauses including several occurrences of gnomic *on* expressing generalizations over the same subgroup of humans are perfectly normal – Ex. (28).

- (28) *A Noël, on_i décore un arbre de Noël,*
 at Christmas MAN decorates a tree of Christmas
 At Christmas, people decorate a Christmas tree,
on_i achète des cadeaux pour ses_i proches,
 MAN buys some presents for his relatives
 they buy presents for their close relatives,
et on_i essaie de deviner les cadeaux qu' on_i recevra soi-même_i.
 and MAN tries to find.out the presents that MAN will.receive himself
 and they try to find out the presents they will get themselves.'

In this respect (the ability to be repeated without varying in its reference), the behavior of gnomic *on* is similar to that of personal pronouns.

2.5.3. Gnomic *on* and intra-clausal anaphoric processes

In Ex. (28) above, (28b) shows that, unlike existential *on*, gnomic *on* is a possible antecedent of possessives, and (28c) shows that, contrary to existential *on*, gnomic *on* can bind the intensifier *soi-même* 'oneself'.

Ex. (29) provides an additional illustration of 3rd person possessives referring back to gnomic *on*, and Ex. (30) shows that gnomic *on* is a possible antecedent of the reflexive pronoun *soi*.

- (29) *On_i n' abandonne pas ses_i amis dans le besoin.*
 MAN not abandon not his friends in the need
 'One does not abandon one's friends when they need help.'
- (30) a. *Quand on_i est seul, on_i ne compte que sur soi_i.*
 when MAN is alone MAN not relies only on oneself
 'When one is alone, one relies only on oneself.'

In spite of the fact that gnomic *on* is often interchangeable with plural expressions like *les gens* or *ils*, it requires the 3rd person singular form of the possessives it binds. It is also worth noting that, in contrast to arbitrary *ils*, possessives referring back to gnomic *on* force a distributive interpretation of the possessive relation, and cannot be used for situations implying a collective reading – Ex. (31).

- (31) a. *En France, ils_i célèbrent la / leur_i fête nationale le 14 juillet.*
 in France they celebrate the / their holiday national the 14 July
 ‘In France, they_{arb} celebrate (their) National Day on July 14’
- b. *En France, on célèbre la / *sa / *leur fête nationale le 14 juillet.*
 in France MAN celebrates the / his / their holiday national the 14 July
 ‘In France, National Day is celebrated on July 14.’
- c. *On_i célèbre son_i anniversaire en famille.*
 MAN celebrates his birthday in family
 ‘One celebrates one’s birthday as a family party.’

2.5.4. Coreference properties of gnomic *on* in complex constructions

The third clause of Ex. (28) above shows that *on* in a subordinate clause can refer back to gnomic *on* in the role of subject of the main verb. Ex. (32) shows that, in such configurations, the second occurrence of *on* is equivalent to a 3rd person pronoun referring back to a variable bound by a distributive operator, and cannot be viewed as the mere repetition of *on* expressing a generalization over a group of persons, since **Everybody thinks that everybody is different from the others* or **Everybody always wants more than everybody has* are not possible paraphrases.

- (32) a. *On_i croit qu’ on_i est différent des autres.*
 MAN believes that MAN is different from.the others
 ‘Everybody thinks that they are different from the others.’
- b. *On_i veut toujours plus que ce qu’ on_i a.*
 MAN wants always more than that which MAN has
 ‘Everybody always wants more than they have.’

Ex. (33) shows that complex constructions allow for anaphoric relations between gnomic *on* and 2nd person plural pronouns in syntactic roles other than subject.

- (33) a. *On_i attend toujours des autres qu’ ils vous_i aident.*
 MAN expects always from.the others that they you(pl) help
 ‘One always expects help from the others.’, lit. ‘One_i always expects from the others that they help you_i.’
- b. *On_i ne sait jamais ce que l’ avenir vous_i réserve.*
 MAN not knows never that which the future to.you(pl) reserves
 ‘One never knows what may happen’, lit. ‘One_i never knows what the future reserves for you_i.’
- c. *Quand on_i est jeune, tout vous_i semble possible.*
 when MAN is young everything to.you(PL) seems possible
 ‘When one is young, one gets the impression that everything is possible.’

This use of 2nd person pronouns is consistent with the fact that, in generic sentences expressing generalizations about humans, second person pronouns constitute possible equivalents of *on*. However, only 2nd person *plural* pronouns have the ability to refer back to gnomic *on* – Ex. (34a), whereas in similar sequences using exclusively 2nd person pronouns receiving an arbitrary reading, the singular is perfectly normal in familiar speech register – Ex. (34b).

(34) a. **On_i attend toujours des autres qu' ils t'_i aident.*
MAN expects always from.the others that they you(sg) help
 Intended: 'One always expect help from the others'

b. *Tu_i attends toujours des autres qu' ils t'_i aident.*
you(sg) expects always from.the others that they you(sg) help
 'You always expect from the others that they help you.', with (depending on the context) the possibility of an arbitrary reading of *you*

Ex. (35) illustrates the possibility that gnomic *on* in the subject clitic slot of the main verb acts as the antecedent of a 2nd person plural pronoun belonging to a subordinate clause whose subject is existential *on*.

(35) *On_i veut toujours plus que ce qu' on_j vous_i donne.*
MAN wants always more than that which MAN to.you(pl) gives
 'Everybody always wants more than they are given.'

2.5.5. Gnomic *on* and the implicit subject of uncontrolled infinitives

Unlike existential *on*, gnomic *on* is discursively active, and shows coreference properties to some extent comparable to those of personal pronouns. However, in its coreference properties, gnomic *on* shows even more striking similarities with the implicit subject of uncontrolled infinitives, since it shares with it the property of being a possible antecedent of 3rd person possessives – Ex. (36), of *on* in subject role – Ex. (37), of 2nd person plural *vous* in syntactic roles other than subject – Ex. (38), and of reflexive *soi* – Ex. (39).

(36) a. *On_i aide ses_i amis.*
MAN helps his friends
 'One helps one's friends.'

b. *Aider_i ses_i amis est un devoir.*
helping his friends is a duty
 'To help one's friends is a duty.'

(37) a. *On_i oublie facilement ce qu' on_i a promis.*
MAN forgets easily that which MAN has promised
 'One forgets one's promises easily.'

b. *Oublier_i ce qu' on_i a promis n' est pas bien.*
forgetting that which MAN has promised not is not well
 'It is not good to forget one's promise.'

(38) a. *On_i aide ceux qui vous_i ont aidé.*
MAN helps those who you(pl) have helped
 'Everybody helps those that helped them.'

b. *Aider_i ceux qui vous_i ont aidé est un devoir.*
helping those who you(pl) have helped is a duty
 'To help those by which one was helped is a duty.'

(39) a. *Quand on_i est seul, on_i ne compte que sur soi_i.*
when MAN is alone.SGM MAN not relies only on oneself
 'When one is alone, one relies only on oneself.'

- b. *Il est prudent de ne compter_i que sur soi_i.*
 it is advisable to not rely only on oneself
 ‘It is advisable to rely only on oneself.’

2.6. Discourse inertness vs. availability of other uses of impersonal *on*

In this section, I examine some other typical uses of impersonal *on*, divided into those showing the same discourse inertness as existential *on* (whose coreference properties have been presented in section 2.4), and those showing the same discourse availability as gnomic *on* (whose coreference properties have been presented in section 2.5).

2.6.1. Discursively inert *on*

2.6.1.1. *Existential on in generic sentences.* In section 4, the discourse inertness of existential *on* has been illustrated in episodic sentences, but existential *on* in generic sentences is equally unable to act for example as the antecedent of possessives – Ex. (40).

- (40) a. *Tous les soirs, quelqu’un_i gare sa_i voiture devant ma porte.*
 all the evenings someone parks his car in.front.of my door.SG
 ‘Every evening somebody_i parks their_i car in front of my door.’
- b. **Tous les soirs, on_i gare sa_i voiture devant ma porte.*
 all the evenings MAN parks his car in.front.of my door.SG
 Intended: ‘Every evening somebody_i parks their_i car in front of my door.’

What seems to be relevant here is that the generalization expressed by this sentence is not about (a group of) people, but about events occurring in a given place.

2.6.1.2. *Author’s on.* The use of *on* constitutes a common strategy for avoiding the use of 1st person pronouns in scientific style, as in Ex. (41).

- (41) *Dans cet article on montrera que ...*
 in this article.SG MAN will.show that
 ‘In this article it will be shown that ...’

But in spite of the fact that, in such contexts, *on* is truth-conditionally equivalent to *je* ‘I’, it is not available as an antecedent of 1st person possessives, and 3rd person possessives cannot refer back to this variety of *on* either – Ex. (42).

- (42) **On_i présentera plus loin ma_i / sa_i propre analyse.*
 MAN will.present below my / his own analysis
 Intended: ‘I will present my own analysis below.’
 OK: *Je présenterai plus loin ma propre analyse.* or *Nous présenterons plus loin notre propre analyse.*

2.6.1.3. *Corporate on.* In the ‘corporate’ use of *on*, illustrated by Ex. (43), *on* is in competition with arbitrary *ils* ‘they’, whose use in French is otherwise relatively limited, and is commonly stigmatized as ‘familiar’.

- (43) a. *On va encore augmenter les impôts.*
 MAN will again raise the taxes
 ‘Taxes will be raised again.’

- b. *Ils vont encore augmenter les impôts.*
 they will again raise the taxes
 id.

What is essential in this use of *on* or *ils* is that the meaning of the VP plays a crucial role in the identification of the plural individual to which the subject argument is identified: ‘The people who have the power to fix taxes, i.e. the government’.

Here again, possessives cannot refer back to this variety of *on*, whereas they are perfectly possible in the synonymous formulation with *ils* – Ex. (44).

- (44) **On_i va encore augmenter les impôts.*
 MAN will again raise the taxes
pour financer ses_i / leurs_i réformes.
 in.order.to finance his / their reforms
 Intended: ‘They (i.e., the government) are going to raise taxes in order to finance their reforms.’
 OK: *Ils_i vont augmenter les impôts pour financer leurs_i réformes.*

2.6.2. Discursively active on

2.6.2.1. *Instructive on*. *On* can refer to members of a group to whom the speaker gives instructions. As illustrated by Ex. (45), *on* in this use is discursively active.

- (45) *Maintenant on_i vérifie qu’ on_i a bien ses_i papiers.*
 now MAN checks that MAN has indeed his papers
 ‘Now everybody checks that they have their papers.’

2.6.2.2. *Experiencer on*. In the use of *on* illustrated by Ex. (46), the speaker generalizes his/her own perception of a situation: ‘I have the impression that it will rain, and I guess that other people have the same impression’. Ex. (46b) shows that *on* in this use is discursively active.

- (46) a. *On a l’ impression qu’ il va pleuvoir.*
 MAN has the impression that it will rain
 ‘One has the impression that it is going to rain.’
 b. *On_i n’ en croit pas ses_i yeux.*
 MAN not of.it believes not his eyes
 ‘One does not believe one’s eyes.’

2.6.2.3. *De-personalizing on*. In this use, often characterized as ‘stylistic’ in French grammars or dictionaries, *on* refers to specific individuals that could be designated by 2nd or 3rd person pronouns without changing the truth-value of the sentence. This use of *on* typically implies a condescending attitude towards the person referred to. In assertive sentences, it usually marks that the event is viewed by the speaker as exceptional, or deviating from normality, often with shades of surprise and/or irony or contempt. As illustrated by Ex. (47), typically uttered in situations in which the person(s) in question is/are not supposed to wear new shoes, *on* in this use is discursively active.

- (47) *Je vois qu' on_i a mis ses_i chaussures neuves.*
 I see that MAN has put.on his shoes new
 'I see that you are wearing your new shoes / he is wearing his new shoes /she is wearing her new shoes / they are wearing their new shoes.'

In interrogative sentences, the use of *on* referring to specific individuals that could be designated by 2nd or 3rd person pronouns presupposes a hierarchical relation whereby the speaker qualifies to check the behavior of the person in question. Interrogative sentences of this type are typically used by adults in interactions with children – Ex. (48).

- (48) *On_i a bien mangé sa_i soupe ?*
 MAN has indeed eaten his soup
 'Did you eat your soup (as was expected from you)?'

2.6.3. Three minimal pairs

When *on* is ambiguous between two readings, it may happen that the establishment of an anaphoric relation excludes one of the possible interpretations. For example, sentence (49a) is ambiguous between an existential reading ('At least one of the persons at the place in question can speak French') and a reading in which it refers to a typical behavior of the people that live at the place in question. But the first interpretation is ruled out if a possessive referring back to *on* is introduced, as in (49b), which cannot be interpreted as 'At least one of the persons at the place in question speaks French to his/her children'.

- (49) a. *Ici on parle français.*
 here MAN speaks French
 'French is spoken here.'
- b. *Ici on parle français à ses enfants.*
 here MAN speaks French to his children
 'The people that live here usually speak French to their children.'

Ex. (44) above, repeated here as (50a), illustrates the discourse inertness of corporate *on* in an episodic sentence. Ex. (50b) shows that, in generic sentences, corporate *on* may be discursively active, provided the generalization concerns the behavior of groups of people (here, freshly elected governments).

- (50) a. **On_i va augmenter les impôts*
 MAN will raise the taxes
pour financer ses_i / leurs_i réformes.
 in.order.to finance his / their reforms
 Intended: 'They (i.e., the government) are going to raise taxes in order to finance their reforms.'
- b. *Après les élections, on_i augmente les impôts*
 after the elections MAN raises the taxes
pour financer ses_i promesses électorales.
 in.order.to finance his promises vote.catching
 'After the elections they usually raise taxes in order to finance their vote-catching promises.'

The first sentence of Ex. (51) is a typical illustration of gnomic *on*. (51b) might suggest that, with the same predicate in an episodic sentence, *on* loses (or at least tends to lose) its discourse availability. However, (51c) shows that, in spite of the episodic character of

the sentence, the insertion of an adjunct suggesting some other kind of generalization restores the discourse availability of *on*.

- (51) a. *A Noël, on_i fait des cadeaux à ses_i enfants.*
 at Christmas MAN makes some presents to his children
 ‘At Christmas, one makes presents to one’s children.’
- b. ??*Hier c’ était Noël,*
 yesterday this was Christmas
on_i a fait des cadeaux à ses_i enfants.
 MAN has made some presents to his children
 Intended: ‘Yesterday was Christmas, people made presents to their children.’
- c. *Hier c’ était Noël, partout en France*
 yesterday this was Christmas everywhere in France
on_i a fait des cadeaux à ses_i enfants.
 MAN has made some presents to his children
 ‘Yesterday was Christmas, everywhere in France people made presents to their children.’

2.6.4. Discussion

This enumeration of typical uses of impersonal *on* classified according to their coreference properties raises the question of the conditioning of the variations observed. Many recent studies of the semantics of arbitrariness have pointed to the relevance of the *episodic* vs. *generic* distinction in the choice between (quasi-)existential and (quasi-)universal readings of unspecified subject constructions.¹⁰ But the data examined in sections 2.6.1 to 2.6.3 shows that, by itself, the distinction between episodic and characterizing (or generic) sentences is not sufficient to provide a universally valid explanation of the distinction between discursively inert and discursively active *on*.

However, with one exception (‘de-personalizing *on*’, examined in section 6.2.3, which obviously relies on a marked discourse strategy I will not try to explain here), the uses in which *on* shows discourse availability can be characterized as (quasi-)universal in the sense that they have in common the expression of a generalization over a more or less clearly identifiable set of human beings, whereas those showing discourse inertness do not lend themselves to such a characterization.

In other words, in the discursively active uses of *on*, the semantic characterization of the subject argument includes the feature [+sum individual] in addition to the feature [+human] common to all of the uses of *on*, and the predication involves generalization over the atomic individuals whose sum constitutes the referent of the subject argument.

It seems therefore reasonable to suppose that the (quasi-)existential reading of *on*, characterized by discourse inertness, is the default reading that arises when nothing is added to the characterization of the subject argument as [+human], and that the relative discourse availability shown by impersonal *on* in some of its uses results from a richer semantic specification implying the presence of some generalization operator.

The authors that have analyzed the conversion of nouns meaning ‘man’ into impersonal pronouns agree that, historically, the development of uses of the type designated here as ‘gnomic’ precedes the development of (quasi-)existential uses:

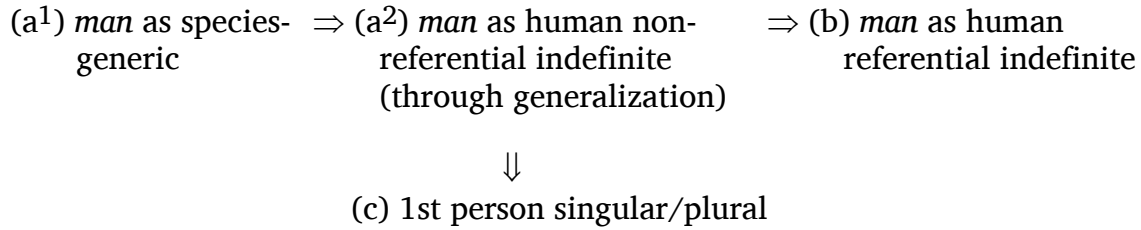
(52) The diachronic development of MAN-indefinites (Egerland 2006)

- a. A lexical DP that is kind-denoting under the scope of a generic operator >

¹⁰ On a possible relationship between the *episodic* vs. *generic* distinction and the interpretation of arbitrary null pronominals, see Cinque 1988, Condoravdi 1989, Alonso-Ovalle 2000.

- b. A nominal generic indefinite expression that is not kind-denoting >
- c. A nominal indefinite expression that may appear in episodic contexts

(53) A grammaticalization path for *man* (Giacalone & Sansò 2007a)



Historically, the feature [+sum individual] that conditions the discourse availability of *on* constitutes therefore the retention of what was at an early stage of the evolution an intrinsic property of *on*, and the possible deletion of this feature, resulting in the discourse inertness observed in some uses of *on*, constitutes a relatively recent development.

2.7. Conclusion of Section 2

In this section, after presenting the coreference properties of *on*, I have concluded that the choice between the two possible discourse behaviors of impersonal *on* is not directly triggered by the *episodic* vs. *generic* distinction, but rather by the presence vs. absence of the feature [+sum individual] in addition to the specification of the subject argument of verbs hosting *on* in the subject clitic slot as [+human].

3. Coreference properties of Mandinka *í* ‘you (sg)’ in its impersonal use

3.1. Introductory remarks

Mandinka, spoken in Senegal, The Gambia, and Guinea Bissau by approximately 1.5 million speakers, is the westernmost member of the Manding dialect cluster, included in the western branch of the Mande language family. The particular behavior of the second person pronoun presented here is found in other Manding varieties, and might well constitute an areal feature, since in the same geographical area it has also been observed in Wolof (Stephane Robert, p.c.), which does not belong to the same language family.

The Mandinka data presented here is drawn from the documentation I have gathered for the reference grammar of Mandinka I am planning to publish next year. All the examples illustrating the coreference properties of the 2nd person singular pronoun used impersonally are natural discourse examples.

3.2. Unspecified human subjects in Mandinka

At first sight, the situation of Mandinka with respect to the expression of unspecified human subjects is not particularly original. In addition to agentless passive constructions (which however have the cross-linguistically rare feature of involving nothing that could be analyzed as passive morphology), various semantic types of unspecified subjects can be encoded as *moô* (definite form of *moo* ‘human being’), *i* (low-toned) ‘they’, or *í* (high-toned) ‘you (sg)’. *Moô* and *í* ‘you (sg)’ can be found with the same interpretation in other syntactic functions, whereas impersonal *i* ‘they’ is only found in subject function.

As illustrated by Ex. (54a), *moô* is commonly used to express generalizations about human beings. From the point of view of Mandinka grammar, it would however not be

justified to recognize the existence of a more or less grammaticalized impersonal pronoun *moô*, since morphologically, *moô* is the definite form of the noun *moo* ‘human being’, and syntactically, any Mandinka noun can be used in the definite form to express generalizations about other kinds of entities, as illustrated by *jatôo* (definite form of *jata* ‘lion’) in Ex. (54b).¹¹

- (54) a. *Moô ka kúm-oo fó le bii, sãama a yé a báayi.*
 person.DEF HAB word-DEF say FOC today tomorrow 3SG SUBJ 3SG cancel
 ‘One says something today, and retracts tomorrow.’
 lit. ‘The man says a word today ...’
- b. *Jat-ôo búká moô maa, fó a dáalámáayáa-ta.*
 lion-DEF HAB.NEG person.DEF attack unless 3SG be_wounded-PF
 ‘Lions do not attack humans, unless they are wounded.’
 lit. ‘The lion does not attack the man ...’

As illustrated by Ex. (55), the impersonal use of *i* ‘they’ includes the expression of unspecified subjects with reference to habitual events, and vague reference in episodic contexts. Depending on the context, *i* in the same sentences can be interpreted as referring to a specific group of people (‘the people in question’).

- (55) a. *I ka kín-oo tábí kalée-rõo le kóno.*
 3PL HAB rice-DEF cook pot-DEF FOC in
 ‘Rice is cooked in a pot.’
 (alternative reading: ‘Those people cook rice in a pot’)
- b. *I yé a ñiniñkáa a ka mênj jéle.*
 3PL PF 3SG ask 3SG HAB REL laugh
 ‘He was asked what he was laughing at.’
 (alternative reading: ‘The people in question asked him ...’)

As illustrated by Ex. (56), like in other languages, the impersonal use of the second personal singular pronoun in Mandinka typically refers to generalizations with respect to a given type of situation, often expressed as conditional sentences, and is widely attested in proverbs.

- (56) a. *Í sí jal-ôo jé,*
 2SG POT griot-DEF see
 ‘You may see a griot
- a sí Sunjata la kúw-o sáata ñáa dóo ma,*
 3SG POT Sunjata GEN matter-DEF explain way one OBL
 who tells you Sunjata’s story in one particular way,
- í si dôo fánañ jé, a sí a sáata ñáa dóo ma.*
 2SG POT other also see 3SG POT 3SG explain way other OBL
 but later you may see another one who will tell it to you in another way.’

¹¹ The following abbreviations are used in the glosses of Mandinka examples: COP = copula, DEF = definite, DEM = demonstrative, DISTR = distributive, FOC = focalization, GEN = genitive, HAB = habitual, HORT = hortative, INF = infinitive, LOC = locative, NEG = negative, OBL = oblique, OBLIG = obligative, PF = perfective, PL = plural, POT = potential, PROH = prohibitive, RECIP = reciprocal, REFL = reflexive, REL = relativizer, SG = singular, SUBJ = subjunctive.

- b. *Níŋ í maŋ féŋ sene, í búka féŋ káti.*
 if 2SG PF.NEG thing cultivate 2SG HAB.NEG thing reap
 ‘If one does not cultivate anything, one does not reap anything.’
- c. *Níŋ í ye wóoro níŋ fulá kafu ñóoma,*
 if 2SG PF six with two join together
 ‘If one adds six and two,
wo mú jolú le ti ?
 DEM COP how_much FOC OBL
 how much is it?’
- d. *Níŋ í ye sól-òo barama, fó í ye sílá-kút-oo ñíniŋ.*
 if 2SG PF leopard-DEF wound OBLIG 2SG HORT road-new-DEF look_for
 ‘If you wound a leopard, you must look for a new road.’
- e. *Dol-óo mǎŋ haráamu, níŋ í maŋ síra.*
 wine-DEF PF.NEG be_forbidden if 2SG PF.NEG get.drunk
 ‘Wine is not forbidden, if you do not get drunk.’

3.3. The use of impersonal *í* with a discourse antecedent

In French, impersonal *tu* can only refer back to another occurrence of impersonal *tu*, and impersonal *vous* can only refer back to another occurrence of impersonal *vous*, or to gnomic *on*. By contrast, Mandinka *í* ‘you (sg)’ in its impersonal use may refer back to a variety of antecedents that can also be resumed by 3rd person pronouns.

In Ex. (57), impersonal *í* occurs in a conditional sentence similar to those in (56) above, with however the difference that the topic position at the right edge of the sentence is occupied by a generic NP equivalent to English ‘any prince’, coreferent with *í*.

- (57) *Mansadiŋ wó mansadiŋ, níŋ í ñán-tá mansayáa-lá Mandiŋ,*
 prince DISTR prince if 2SG must-PF reign-INF Mande
 lit. ‘[Any prince]_i, if you_i were doomed to reign over Mande,
Suusuu Súmáŋkúru be í faa-la dóroŋ.
 Suusuu Sumankuru COP 2SG kill-INF only
 Suusuu Sumankuru would just kill you_i.’
 → ‘S.S. would kill any prince who was doomed to reign over Mande.’

In Ex. (58), the antecedents of impersonal *í* are relatives clauses in topic position equivalent to English ‘a/the person whom love has killed’ and ‘a/the king whom I serve’ respectively.

- (58) a. *Kanu ye méŋ faa, í maŋ jífa.*
 love PF REL kill 2SG PF.NEG die_miserably
 lit. ‘[A/the person whom love has killed]_i, you_i did not die miserably.’
 → ‘A person who was killed by love did not die miserably.’
- b. *Ñte bé mansa mēŋ nóoma, í maŋ ñánná kumbóo-la !*
 1SG COP king REL after 2SG PF.NEG must pleurer-INF
 ‘[A/ king that I serve]_i, you_i must not cry !’
 → ‘A king that I serve must not cry.’

In Ex. (59), the antecedents of impersonal *í* are still free relatives in topic position, but they belong to another type of relative clauses, which are necessarily interpreted as non-referential: ‘any person who does not believe me’, ‘any person who tries to cut this tree’.

(59) a. *Níŋ mńŋ ŋa ń soosoo, í si táa jee í yé a juubee.*
 if REL PF 1SG contradict 2SG POT go there 2SG SUBJ 3SG look
 lit. ‘[Anyone who contradicts me]_i, you_i should go there and look at it.’

→ ‘Anyone who does not believe me should go there and have a look at it.’

b. *Moo wó moo yé wo yíróo sěe faŋ-ó la,*
 person DISTR person PF DEM tree-DEF cut cutlass-DEF OBL
 lit. ‘[Anyone who tried to cut this tree with a cutlass]_i,

í ká fǎa le.
 2SG HAB die FOC
 you_i would die.’

→ ‘Anyone trying to cut this tree with a cutlass would die.’

In Ex. (60), the antecedent of impersonal *í* is *moo*, bare form of the noun *moo* ‘human being, which in negative context is the equivalent of English *nobody*.

(60) *Wǒ tum-ôo, moo búká mansayáa sotó jaŋ,*
 DEM time-DEF person HAB.NEG kingship.DEF get here
 lit. ‘In those days, [nobody]_i became king here

fó níŋ í táa-tá Mandiŋ.
 unless if 2SG go-PF Mande
 unless you_i went to Mande.’

→ ‘In those days, nobody became king here without going first to Mande.’

Similarly, in Ex. (61), the antecedent of impersonal *í* is the bare noun *dńŋ* ‘child’ in negative context.

(61) *ń búka dńŋ ńiniŋkaa, ń ńán-ta í ní-lá muntóo le to.*
 1SG HAB.NEG child ask 1SG must-PF 2SG offer-INF where FOC LOC
 lit. ‘I do not ask [a child]_i (i.e., a daughter of mine) where (i.e., to whom) I must give you_i in marriage.’

→ ‘I do not ask a daughter of mine to whom I must give her in marriage.’

In Ex. (62), the antecedent *moo wó moo* ‘anyone’ is the subject of the clause to which the first occurrence of impersonal *í* belongs.

(62) *Moo wó moo láa-ta í fáŋ na,*
 person DISTR person trust-PF 2SG self OBL
 lit. ‘[anyone]_i trusting in yourself_i,

í sí bulá ńiŋ túlúŋ-o to.
 2SG POT take_part DEM game-DEF LOC
 you_i may take part in this game.’

→ ‘Anyone trusting in themselves may take part in this game.’

In Ex. (63) too, the first occurrence of impersonal *í* has its antecedent (the relativizer *mêŋ*) in the same clause.

- (63) *Níŋ méŋ ye ñiŋ taamanseer-óo-lu síutee í bála,*
 if REL PF DEM symptom-DEF-PL notice 2SG on
 lit. '[Anyone]_i who notices these symptoms on you_i,
í si táa kátábáke í niŋ dókítár-oo-lu ye ñóo je.
 2SG POT go quickly 2SG with doctor-DEF-PL SUBJ RECIP see
 you_i should go quickly to consult doctors.'

→ 'Anyone who notices these symptoms on themselves should go quickly to consult doctors.'

In Ex. (64), like in several of the preceding examples, a non-referential free relative occupies the topic position at the left edge of the sentence, and impersonal *í* is included in the main clause. However, the antecedent of impersonal *í* is not the free relative, but *moô* 'the/a person'.

- (64) *Moô ye mêŋ fũ, wǒ le ka fáliŋ í ye.*
 person.DEF PF REL SOW DEM FOC HAB grow 2SG for
 'What [a person]_i has sown, this is what grows for you_i.'

→ 'One reaps what one has sown.'

In Ex. (65), impersonal *í* in genitive function is included in a topicalized noun phrase, and its antecedent *moô* 'a/the man' occurs in subject position.

- (65) *Í báadíŋkew-o, moô si sílá a la.*
 2SG brother-DEF person.DEF POT be_afraid 3SG OBL
 lit. 'your_i brother, [a person]_i may be afraid of him.'

→ 'One may be afraid of one's brother.'

To summarize, in Mandinka, impersonal *í* may refer back to non-referential noun phrases making explicit the domain within which the generalization applies (either the whole set of human beings, or a proper subset thereof), and there is no obvious syntactic restriction to the establishment of such coreference chains. In this use, the selection of a particular type of antecedent (non-referential noun phrases) seems to be the only thing that distinguishes the behavior of impersonal *í* from that of ordinary third person pronouns.

3.4. A possible grammaticalization path

In this section, I discuss a possible scenario according to which the reanalysis of a construction widely attested cross-linguistically may have resulted in coreference chains of the type described in Section 3.3.

Given the observations presented in Section 3.3, there is no difficulty in analyzing Ex. (66) as involving a coreference chain in which a topicalized noun referring to a kind constitutes the antecedent of impersonal *í*.

- (66) *Furêe, níŋ í ye í nukuŋ í kuubáa-lu ma,*
 corpse.DEF if 2SG PF REFL hide 2SG washer.DEF-PL OBL
 lit. '[a corpse]_i, if you_i hide from the persons who must wash you_i,

í níŋ kós-ǒo le ka táa alikiyáama.
 2SG with uncleaness-DEF FOC HAB go next_world
 you_i go unclean to the next world.'

→ 'A corpse hiding from those who must wash it goes unclean to the next world.'

There is however another possible interpretation of this sentence, since the noun in left-dislocated position can equally be understood as a pseudo-vocative directed to the potential referents of *furee* 'corpse': 'Corpse, if you hide from those who must wash you, you go unclean to the next world!'

The beginning of Ex. (67) exhibits the same ambiguity, but the use of an imperative in the last part of this sentence shows that *díndíŋo* must be interpreted as a vocative.

(67) *Díndíŋ-o, níŋ í táa-tá duláa to,*
 child-DEF if 2SG go-PF place.DEF LOC
 'Child, if you go somewhere,
níŋ í yé keebáa tará jee,
 if 2SG PF old_person.DEF find there
 and if you find and old person there,
kána hórómántányáa sambá a kaŋ.
 PROH disrespect.DEF bring 3SG on
 do not be disrespectful to them!'

Constructions with a non-referential second person pronoun coreferent with a pseudo-vocative directed to the potential referents of a noun are extremely common cross-linguistically as a possible discourse strategy for expressing generalizations, as illustrated in (68) by a famous verse from the pen of the French poet Charles Baudelaire.

(68) *Homme libre, toujours tu chériras la mer !*
 man free always you will.cherish the sea
 'Free man, you will always cherish the sea!'

Starting from that, it seems reasonable to suppose that the coreference chains involving impersonal *í* described in Section 3.3 originate from the reanalysis of such constructions. Ex. (66) illustrates the type of context in which, in languages in which nouns in vocative function are not formally distinct from topicalized nouns, a second pronoun quite regularly resuming a pseudo-vocative directed to a potential addressee in sentences expressing generalizations may be reanalyzed as resuming a non-referential noun phrase in topic function. This is probably what occurred in the history of Manding (or in the history of another language from which the construction may have spread to neighboring languages). The use of the second person pronoun as a resumptive pronoun taking non-referential noun phrases as its antecedents was subsequently extended to contexts in which the non-referential antecedent is not interpretable as a pseudo-vocative, as illustrated by the examples quoted in Section 3.3.

4. Conclusion

In this talk, I have tried to illustrate how a general theory of impersonality may benefit from the observation of the coreference properties of impersonal pronouns. In the first part, I have shown that a detailed study of the coreference properties of French *on* is crucial for a precise description of the polysemy of this pronoun. In the second part, I

have shown that the study of the coreference properties of personal pronouns used impersonally in languages less familiar to linguists may reveal interesting connections that are not apparent in the languages for which the study of impersonal constructions has a long-standing tradition.

References

- Alonso-Ovalle, L. 2000. 'Is the 'arbitrary interpretation' an epiphenomenon?' *University of Massachusetts Occasional papers* 23. 155-183.
- Alsina, A. 1996. *The role of argument structure in grammar, evidence from Romance*. Stanford: CSLI Publications
- Bhatt, R. & R. Pancheva. 2004. 'Implicit arguments'. Ms. University of Texas, Austin, and University of Southern California.
- Blevins, J. 2003. 'Passives and impersonals'. *Journal of Linguistics* 39. 473-520.
- Cabredo Hofherr, P. 2003. 'Arbitrary readings of third person plural pronominals'. In Weisgerber, M. (ed.), *Proceedings of the Conference Sinn und Bedeutung 7*. Universität Konstanz.
- Cabredo Hofherr, P. To appear. 'Les pronoms impersonnels humains, syntaxe et interprétation.' *Modèles linguistiques*.
- Casielles Suárez, E. 1996. '¿Es la interpretación arbitraria realmente arbitraria?' *Revista Española de Lingüística* 26(2). 359-377.
- Chierchia, G. 1995. 'The variability of impersonal subjects'. In E. Bach, E. Jelinek, A. Kratzer, & B. Hall Partee (eds.), *Quantification in natural languages*. 107-143. Dordrecht: Kluwer.
- Cinque, G. 1988. 'On *si* constructions and the theory of arb.' *Linguistic Inquiry* 19. 521-582.
- Condoravdi, C. 1989. 'Indefinite and generic pronouns'. In E. Jane Fee & K. Hunt (eds.), *Proceedings of the Eight West Coast Conference on Formal Linguistics*. 71-81. Stanford: CSLI.
- Creissels, D. 2006. *Syntaxe générale, une introduction typologique. Vol. 2 : la phrase*. Paris: Hermès.
- Creissels, D. 2007. 'Impersonal and anti-impersonal constructions: a typological approach'. Ms, University of Lyon. <http://deniscreissels.fr>.
- D'Alessandro, R. 2007. *Impersonal si-constructions*. Berlin: Mouton De Gruyter.
- D'Alessandro, R. & A. Alexiadou. 2003. 'Nome: a subject clitic in a southern Italian dialect'. In M. Coene & Y D'Hulst (eds.), *Current Studies in Comparative Romance Linguistics*. 189-218. Antwerp: Antwerp Papers in Linguistics.
- D'Alessandro, R. & A. Alexiadou. 2006. 'The syntax of the indefinite pronoun *nome*'. *Probus* 18(2). 189-218.
- Dobrovie-Sorin, C. 1998. 'Impersonal SE constructions in Romance'. *Linguistic Inquiry* 29. 399-437.
- Egerland, V. 2003. 'Impersonal pronouns in Scandinavian and Romance'. *Working papers in Scandinavian syntax* 71. Lund University. 75-102.
- Egerland, V. 2006. 'On the syntax of *uomo* in Old Italian'. Paper presented at the *Cambridge Italian Dialect Syntax Meeting*. Cambridge.
- Giacalone, A. & A. Sansò. 2007a. 'The spread and decline of indefinite *man*-constructions in European languages: An areal perspective'. In P. Ramat & E. Roma (eds.), *Europe and the Mediterranean as linguistic areas: convergencies from a historical and typological perspective*. 95-131. Amsterdam / Philadelphia: John Benjamins.
- Giacalone, A. & A. Sansò. 2007b. 'The indefinite usage of *uomo* ('man') in early Italo-Romance. Grammaticalization an areality'. *Archivio Glottologico Italiano* XCII(1). 65-111.
- Hewitt, S. 2002. 'The impersonal in Breton'. *Journal of Celtic Languages* 7. 1-39.
- Jónsson, J. 1992. 'The pronoun *maður* in Icelandic'. Ms. Amherst: University of Massachusetts.
- Kaiser, E. & V. Vihman. 2006. 'Invisible arguments: Effects of demotion in Estonian and Finnish'. In B. Lyngfelt & T. Solstad (eds.), *Demoting the agent*. 111-140. Amsterdam / Philadelphia: John Benjamins.
- Kibort, A. 2003. *Passive and passive-like constructions in English and Polish: a contrastive study with particular reference to impersonal constructions*. Ph. D. dissertation. University of Cambridge.
- Kitagawa, C. & A. Lehrer. 1990. 'Impersonal uses of personal pronouns'. *Journal of Pragmatics* 14. 739-759.
- Koenig, J.P. 1999. 'On a tué le président! The nature of passives and ultra-indefinites'. In B. Fox, D. Jurafsky, & L. Michaelis (eds.), *Cognition and function in language*. 256-272. Stanford: CSLI.
- Koenig, J.P., & G. Mauner. 1999. 'A-definites and the discourse status of implicit arguments'. *Journal of Semantics* 16(3). 207-236.
- Krifka, M., F. Pelletier, G. Carlson, A. ter Meulen, G. Link, & G. Chierchia. 1995. 'Genericity: an introduction'. In G. Carlson & F. Pelletier (eds.), *The generic book*. 1-124. Chicago / London. The University of Chicago Press.
- Malamud, S. 2006. *Semantics and pragmatics of arbitrariness*. PhD dissertation. University of Pennsylvania.

- Manninen, S. & D. Nelson. 2004. 'What is a passive? The case of Finnish'. *Studia Linguistica* 58(3). 212-251.
- Malchukov A. & A. Ogawa. 2011. 'Towards a typology of impersonal constructions: A semantic map approach'. In A. Malchukov & A. Siewierska (eds.), *Impersonal constructions, a cross-linguistic perspective*. 19-56. Amsterdam / Philadelphia: John Benjamins.
- Moltmann, F. 2006. 'Generic *one*, arbitrary PRO, and the first person'. *Natural Language Semantics* 14. 257-281.
- Noonan, M. 1994. 'A tale of two passives in Irish'. In Hopper, P. & B. Fox (eds.), *Voice: form & function*. Amsterdam / Philadelphia: John Benjamins.
- Noonan, M. 2001. 'Subjectless clauses in Irish'. Paper presented at the *International Symposium on Non-nominative Subjects*. Tokyo: Institute for the Study of Languages and Cultures of Asia and Africa.
- Papafragou, A. 1996. 'On generics'. *UCL Working Papers in Linguistics* 8.
- Prince, E. 2003. 'The Yiddish impersonal pronouns *men* 'one' in discourse'. Paper presented at the annual meeting of the LSA, Atlanta.
- Prince, E. 2006. 'Impersonal pronouns in French and Yiddish: Semantic reference vs. discourse reference'. In B. Birner & G. Ward (eds.), *Drawing the boundaries of meaning*. 295-315. Amsterdam / Philadelphia: John Benjamins.
- Siewierka, A. 2008. 'Introduction: Impersonalization: An agent-based vs. a subject-based perspective'. *Transactions of the Philological Society* 106(2). 115-137. (*Special issue on Impersonal Constructions in Grammatical Theory*, guest-edited by A. Siewierska)
- Słoń, A. 2003. *Impersonal constructions in English and Polish, a Cognitive Grammar analysis*. PhD dissertation. Lublin: Marie Curie-Skłodowska University.
- Torn, R. 2002. 'The status of the passive in English and Estonian'. In Hendriks, H. (ed.), *Working Papers in English and Applied Linguistics* 7. 81-106. Cambridge: Research Center for English and Applied Linguistics.
- Welton-Lair, L. 1999. *The evolution of the French indefinite pronoun on: a corpus-based study on grammaticalization*. PhD dissertation. Cornell University.
- Zifonun G. 2001. '«Man lebt nur einmal». Morphosyntax und Semantik des Pronomens *man*.' *Deutsche Sprache* 28. 232-253.