The goal of this paper is to study the behavior of -ble adjectives with respect to the inheritance of verbal arguments. Even though -ble adjectives, like middle constructions, have a non-eventive character, they syntactically inherit the internal arguments of the verbal root, with the most direct one becoming the subject. If it is assumed that syntactic inheritance is possible only when the construct is eventive (cf. Grimshaw (1990) and Picallo (1991) for nominalizations, and Levin and Rappaport (1988) for -er nominals, among others), then -ble adjectives and middles are a problem for inheritance. We will suggest that the predicative value of adjectives and verbs (both [+V], in contrast with the [-V] feature of nouns) can explain this apparent contradiction.

1. The Rule of -ble Affixation

The rule that forms adjectives adding the suffix -ble to a verbal root has been studied extensively. Linguists generally agree on the assumption that the suffix -ble requires a transitive verbal root. It explains the contrast between (1a-c) and (1d-f):

\[
\begin{align*}
(1) & \quad a. \text{ adora}+\text{ble} & \text{'adorable'} \\
& \quad b. \text{ imagina}+\text{ble} & \text{'imaginable'} \\
& \quad c. \text{ destructi}+\text{ble} & \text{'destructible'} \\
& \quad d. \text{ *rondina}+\text{ble} & \text{'grumbleable'} \\
& \quad e. \text{ *neva}+\text{ble} & \text{'snowable'} \\
& \quad f. \text{ *sembla}+\text{ble} & \text{'seemable'}
\end{align*}
\]

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The effect of the suffixation rule on the verbal argument structure is double: (a) the object of the verb becomes the subject of the adjective, and (b) the subject of the verb disappears. See the following examples:

(2) a. recomanar: \(NP_1 \rightarrow NP_2\)
   'recommend'
   b. recomanable: \(NP_2 \rightarrow (*by \ NP_1)\)
   'recommendable'

(3) a. El professor va recomanar un llibre.
   'The teacher recommended a book.'
   b. un llibre recomanable (*pel professor)
   'a book recommendable (by the teacher)'

In Williams' (1981) terminology, the internal argument has been externalized, and the external argument is lost.

Other linguists, as de Miguel (1986), do not define the effect of the rule in terms of the internal-external argument distinction, nor in terms of syntactic function, but rather in terms of \(\theta\)-roles. She affirms that the subject of -ble adjectives in Spanish is always the Theme of the verb, independently of whether it is the subject or the object. So, the rule of -ble affixation requires that the \(\theta\)-grid of the verb have a Theme; the transitivity of the verb is not important, nor whether the Theme is projected or not as an internal argument. Her argument is based, fundamentally, on examples such as (4), where the Theme appears in subject position:

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1 By 'subject of the adjective' we mean the externalized argument, the NP functioning as the antecedent for the agreement features of the adjective.
(4) a. El ferro és oxidable.
   'Iron is oxidizable.'
   a'. \( x \) oxida el ferro
   '\( x \) oxidize the iron'
   a''. el ferro s'oxidà
   'iron oxidizes'

b. La música és agradable.
   'Music is pleasant.'
   b'. la música agrada
   'music pleases'

(4a) has two interpretations: one, \((4a')\), is causative, and the Theme is the direct object of the verb, and the other one, \((4a'')\), is inchoative, and the Theme is the subject.\(^2\) In (4b) the Theme can only appear as the subject, but these Theme subjects come from a D-structure object position, following the traditional analysis of Burzio (1986) and Belletti and Rizzi (1988). So, word formation rules will "see" only that Themes are internal arguments because these rules are sensitive to lexical properties of words, but not to syntactic structures.

We assume, for the time being, that the suffix -ble selects verbs with an internal argument. From the examples we have discussed, the two hypotheses seem to be identical, but we will see that the subject of a -ble adjective can be an internal argument bearing a \( \theta \)-role other than Theme. Given that Themes are always projected in an internal argument position (cf. Gràcia (1989)), we can conclude that the rule of -ble affixation is sensitive to the type of argument, internal or external, but not to the \( \theta \)-role.

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\(^2\) According to Roeper (1987:303), adjectives like breakable, bouncable, fracturable, and singable, formed from ergative verbs, only have a transitive interpretation, i.e., they imply an implicit Agent.
2. The External Argument

It is generally assumed that the external argument of the verb cannot be inherited by the adjective:

(5)  a. *un llibre recomanable pel professor
     'a book recommendable by the teacher'
 b. *un alumne criticable pel mestre de física
     'a student criticizable by the physics teacher'
 c. *una ciutat anihilable per l'enemic
     'a city annihilatable by the enemy'

De Miguel presents some examples where the presence of the Agent is acceptable:

(6)  a. un juguete fácilmente manejable por los niños
     'a toy easily handleable by children'
 b. (??)Pedro es superable por Juan.
     'Pedro is surpassable by Juan.'

In our opinion, (6b) is not very acceptable, but it becomes better if the by phrase is less specific than por Juan:

(7)  'Pedro es superable por cualquiera que haya obtenido el Graduado Escolar.
     'Pedro is surpassable by anyone with a primary school certificate.'

Indeed, (6a) is acceptable, but if we change the Agent complement by a more specific one, or if we eliminate the adverb fácilmente 'easily', the sequence gets worse:

(8)  a. ¿un juguete fácilmente manejable por mi hijo
     'a toy easily handleable by my son'
Observe that if we modify the examples in (5) accordingly, they get better:

(9) a. *un llibre fàcilment recomanable per qualsevol que l'agi llegit
   'a book easily recommendable by anyone who's read it'

   b. *un alumne fàcilment criticable per qualsevol que hagi estat professor seu
   'a student easily criticizable by anyone who's been his teacher'

   c. *una ciutat fàcilment anihilable per qualsevol exèrcit mínimament organitzat
   'a city easily annihilatable by any minimally well organized army'

Why do these adjectives behave in this way with respect to the Agent? We will analyze the meaning of these adjectives. We will leave aside the adjectives deriving from "intransitive verbs" (actually, inaccusatives) that have an active meaning, as those in (10):

(10) a. agradable = que agrada
    'pleasant' 'that pleases'

   b. variable = que varia
    'variable' 'that varies'

   c. perdurable = que perdura
    'perdurability' 'that perdures'

The other adjectives have a passive or inchoative value, depending on whether the original verbal form is transitive (agentive) or intransitive (ergative). The verbal form is generally pronominal in the latter case. In (11) we have some of the definitions for these adjectives in Fabra (1932):
(11) I. que pot ser V

'that can be V'

a. justificable 'justifiable'
b. comunicable 'communicable'
c. comparable 'comparable'
d. aprofitable 'usable'

II. que es pot V

that *-can V

'that can be V'

a. reclamable 'claimable'
b. qualificable 'qualifiable'
c. reparable 'repairable'
d. maniobrable 'handleable'
e. oxidable 'oxidizable'
f. mobilitzable 'mobilizable'

From the data observed it appears that the adjectives defined with the form *que pot ser V*, those in (11 I), come from transitive verbs that do not have ergative counterparts. The adjectives defined with the paraphrase *que es pot V*, those in (11 II), do not form a homogeneous class: while (12a, b) are transitive/ergative, (12c, d, e) are purely transitive.

(12) a. oxidable 'oxidizable'
b. mobilitzable 'mobilizable'
c. reclamable 'claimable'
d. qualificable 'qualifiable'
The paraphrase *que es pot V* can have two values: one is inchoative ('it can oxidize by itself') and the other one is passive, with an impersonal meaning ('one can oxidize it', 'it can be oxidized by one'). The inchoative value corresponds to ergative forms. The second value resemble the paraphrase *que pot ser V*; the difference is that the pronominal form implies an impersonal meaning, but the periphrastic form does not necessarily do it. However, the fact that there is no clear difference between the transitive verbs in (11 I) and those in (11 II) allows us to say that the impersonal or generic value is common in the two cases. That is, when the verbal form has an Agent, this Agent has a generic value in the adjectival form.

Problably, if the Agent (explicit or not) has a generic value, it is because these adjectives are attributed to a subject when it is generally true that the subject has this quality. That is, we cannot say that the behavior of a person is criticizable only because one person has a reason to criticize it; it will be criticizable if everyone can criticize it. This value is well reflected in Fabra (1932) when he describes some *-ble* adjectives that, in some way, implicitly carry a subjective valorative load that one wants to generalize or to objectivize:

(13) I. a. lamentable  digne de lamentació
    'lamentable' 'worthy of lamentation'
 b. censurable  digne de censura
    'censurable' 'worthy of censure'
 c. admirable  digne d'admiració
    'admirable' 'worthy of admiration'
 d. adorable  digne d'adoració
    'adorable' 'worthy of adoration'
 e. respectable  digne de respecte
    'respectable' 'worthy of respect'
II. a. amable \text{ digne de ser amat}  
'lovable' 'worthy of being loved'  
b. envejable \text{ digne de ser envejat}  
'enviable' 'worthy of being envied'  
c. enyorarable \text{ digne de ser enyorat}  
'missable' 'worthy of being missed'  
d. publicable \text{ digne de ser publicat}  
'publishable' 'worthy of being published'  

All these facts make constructions with a \text{-ble} adjective resemble middle constructions, which have a generic value as well; they describe a quality of the subject and are often modified by \text{bé} 'well' or \text{fàcilment} 'easily':

(14) a. Els buròcrates se subornen fàcilment.  
'Bureaucrats bribe easily.'  
b. Aquests llibres es venen bé.  
'These books sell well.'  
c. Els teus articles no es llegixeixen de bon grat.  
Lit.: 'Your papers don't read willingly.'  

Keyser and Roeper (1984:384) affirm that middle constructions are often called "generic sentences" and that they are "(...) state propositions that are held to be generally true. They do not describe particular events in time (...). Middle verbs do not refer to events."

If we accept this similarity between \text{-ble} adjectives and middle constructions, we have a way of explaining the difficulty in having an Agent in adjectival constructions. Middles are very odd with an explicit Agent as well, but they get better when the Agent is generic or not very specific:
(15) a. Els buròcrates se subornen fàcilment...
   'Bureaucrates bribe easily...'
   a'. *...pel senyor Pere Pi.
   '...by Mr. Pere Pi.'
   a''. ??...per qualsevol que els ofereixi diners.
   '...by anyone who offers them money.'

b. Aquests llibres es venen bé...
   'These books sell well...'
   b'. *...pel llibreter que viu a la cantonada.
   '...by the bookseller who lives in the corner.'
   b''. ??...pels llibreters de vell.
   '...by used-book dealers.'

c. Els teus articles no es llegeixen de bon grat...
   Lit.: 'Your papers don't read willingly...'
   c'. *...pel meu germà.
   '...by my brother.'
   c''. ??...per ningú.
   '...by no one.'

It has been argued that in middles the clitic se absorbs the Agent θ-role, so it cannot reappear as a PP. For -ble adjectives, a similar solution has been proposed (cf. Roeper (1987)): the suffix absorbs the Agent θ-role. Notice that there is another class of adjectives, formed on a verbal root by the adjunction of the suffix -dar, that have the same value that -ble adjectives have:

(16) a. lletra llegidora (*pel nen)
   'handwriting readable (by the child)'

b. minyona casadora (*pel capellà)
   'housemaid marriable (by the priest)'

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Fabra (1956) considers that the suffix -dor in (16) is different from the agentive or instrumental suffix -dor ('-er'). In fact, the subject of the -dor adjective in (16) corresponds to the verbal internal argument, and the meaning is passive, just as in the case of the suffix -ble. Moreover, their definition in Fabra (1932) includes a modifier of manner, which brings these adjectives closer to the middles. As in the case of -ble adjectives, the ungrammaticality of the sequences with an Agent PP can be explained if one assumes that, like the other suffix -dor, this one also absorbs the θ-role of the external argument.4

We have seen that -ble adjectives, as middle constructions, are non-eventive, but also that the external argument of the verb is internally bound by the suffix and the internal argument is syntactically realized as the subject of the adjective. This is not in accord with the assumption that non-eventive elements cannot syntactically inherit any argument of the base (cf. Grimshaw

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4 There are other adjectives that have a meaning similar to the adjectives in (16), as those in (i):

(i) a. un noi sortidor (= que té tendència a sortir)  
   a guy go-out-er  
   'a partying boy' (=who likes going out often)

b. un parlar entrador (= que entra fàcilment)  
   a language go-in-er  
   'an enthralling way of talking' (=which gets to people easily)
3. Non-direct Internal Arguments

It has been generally accepted that -ble adjectives cannot inherit the non-direct complements of the verb they derive from. Randall's (1984) explanation is that inheritance is blocked because, since they don't inherit the Agent (syntactically), they can inherit no other argument with a θ-role lower in the θ-Hierarchy. In (17) we have some examples that cast doubts over whether Randall's account is applicable to Catalan:

(17) a. una afirmació aplicable al català
   'a statement applicable to Catalan'

b. un atemptat atribuible a ETA
   'a violent action attributable to ETA'

5 We distinguish two types of inheritance. When an argument of the base is bound by an element of the complex word (an affix or a part of a compound) we say that this argument is inherited morphologically or internally. If an argument of the base is realized in the syntax, out of the complex word, then it is inherited syntactically or externally (cf. Booij (1988)).

6 This is Randall's Thematic Inheritance Principle (1984:108):

Thematic Inheritance Principle
A +C operation [category changing] which blocks the assignment of a θ-role blocks the assignment of all θ-roles lower on the θ-Hierarchy.

θ-Hierarchy
1. Theme
2. Agent
If we accept that only eventive derivates can inherit the argument structure of the base, and that -ble adjectives, like middles, are non-eventive, the examples in (17) should be ungrammatical, unless one assumed that the PP complement does not correspond to any verbal argument. However, the fact that the phrases in (17) are well formed and that the preposition in them always coincides with the preposition of the verbal complement leads us to conclude that -ble adjectives do inherit prepositional complements, against what is predicted by the standard assumptions.

Let us look at how deverbal nouns behave with respect to the inheritance of PPs. When the verb has three arguments, as in the case of the verbs corresponding to the adjectives in (17), nouns in -dor (\"-er\") accept the PP only if they are eventive; otherwise they do not:
If we consider the sequence $V \cdot d o r \ de \ N$ 'V-er of N' in (19) a compound (cf. Gràcia (forthcoming)), we can account for the oddity of the construction with a second PP, which would only be a complement of the compound, but not an argument of the verb.

Process and result nominalizations seem to accept a PP, but, as it has been often noted, sometimes there is a change of preposition, as shown by the English examples in (20) and the Dutch examples in (21):

(20) a. Rome's attack on *of Carthage
   a'. Rome attacks Carthage
   b. John's admiration for the president
   b'. John admires the president.
   c. the need for *of food

7 Chomsky (1970) considers this alternation an argument in favor of the Lexicalist Hypothesis for nominalizations. This idiosyncratic variation cannot be explained transformationally, it has to be explained in the Lexicon. Example (20a) is from Fiengo (1979), (20b, c) are from Anderson (1979), and the examples in (21) are from Hoekstra and van der Putten (1988).
In (20) and (21) the derived noun has a complement with a preposition that the verb does not accept (this preposition is not a Case marker like of). The facts are the same in Catalan. The examples in (22), from Hoekstra and van der Putten (1988:182), are examples of nominals that do not inherit the preposition required by the verb:
b. *zijn verbinding aan Shell
   'his alliance to Shell'

Hij schikt zich in zijn lot.
   'He resigns himself to his fate.'

c'. *zijn schikking in zijn lot
   'his resignation to his fate'

As we can see in (23), there are non derived nouns that also select a PP, and the preposition is related to the meaning of the noun (from Hoekstra and van der Putten (1988:183)):

a. zijn idee over ECP
   'his idea about ECP'

a'. denken over de ECP
   'think about ECP'

b. de interesse in mystiek
   'the interest in mysticism'

b'. geloven in mystiek
   'believe in mysticism'

Hoekstra and van der Putten conclude that the presence of PPs is not a matter related to the inheritance of arguments, but it is determined by the semantic structure shared by the two lexical items. However, if we look at examples (20) to (22), we can see that all the nouns are result nouns, so non-eventive; they are nouns with the zero affix or nouns derived from psych-verbs (cf. Roeper (1987), Abney (1987), etc.). Therefore, since they are nouns formed in the Lexicon, we can argue that the properties of the root are opaque and that, as a consequence, the arguments are not inherited. The examples in (24) show that inheritance of PP arguments is possible when the nominal is eventive, i.e. a process nominal:

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8 There is one name of trade (non-eventive) in -dor that presents a change of preposition with respect to the verbal form as well:
(24)  a. La introducció del nou producte al mercat (per part de l'empresa) va ser lenta.
'The introduction of the new product to the market (by the company) was slow.'

b. El repartiment / la divisió de l'herència entre els familiars (per part del jutge) va ser difícil.
'The distribution / division of the inheritance among the relatives (by the judge) was difficult.'

c. La transformació del club en una S.A. (per part de l'equip directiu) va ser molt ràpida.
'The transformation of the club into a joint-stock company (by the management) was very quick.'

If we accept that the origin of these derived nouns is syntactic and that in D-structure the verbal root is the head of a VP, we can explain why the noun maintains the argumental properties of the verb.

4. An Explanation

We have seen that the ability of derived nouns to take a PP corresponding to an argument of the verbal base is linked to the eventive value of the noun. If the noun is non-eventive, the PP is not inherited. If this is so, why can ble adjectives, which are non-eventive, inherit the PP? Now, recall another problem we leaved unsolved above: if -ble adjectives are non-eventive, why can they syntactically realize the internal argument of the verb as their subject?

(i) jugar a *de futbol
play to / of football
'to play football'

(ii) jugador *a / de futbol
player to / of football
'football player'
Our proposal is to relate this behavior of *-ble* adjectives to the fact that the resulting category of the affixation process is precisely an adjective, whereas in the other cases it is a noun. If we accept the traditional analysis of lexical categories in features, adjectives are [+V] and nouns are [-V]. Adjectives, unlike nouns, function as predicates and so they need a subject (this is not necessarily the case for nouns). The need for having a subject can explain the externalization of the internal argument that becomes the subject (recall that they have a passive meaning). We propose that this predicative value of adjectives makes the *-ble* adjective capable of inheriting all the internal arguments (those that would form the maximal projection VP with the verb). Then, since predicates need a subject, the adjective must externalize one of the internal arguments, generally the Theme.

Notice that sometimes, when the verb has no direct internal argument (a Theme NP) and it has only one PP complement, it is this complement that is externalized, without the preposition:

(25) a. optable optar per
     'optable' 'opt for'
 b. fiable fiar-se de
     'reliable' 'rely on'
 c. opinable opinar sobre
     'commentable' 'comment on'
 d. navegable navegar per
     'navigable' 'navigate'
 e. transitable transitar per
     'travelable' 'travel along'
 f. prescindible prescindir de
     'dispensable' 'dispense with'
 g. risible riure de
     'laughable' 'laugh at'

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These adjectives externalize the most internal argument, independently of the θ-role it receives.9

Finally, notice that middles, non eventive verbal constructions, also have a subject that is an externalized internal argument; they have lost the external argument and they allow the presence of other internal arguments of the verb:

(26)  
   a. Fets com aquest s'atribueixen fàcilment a ETA. 
   facts like this attribute easily to ETA
   'Actions like this can be easily attributed to ETA.'
   b. Aquest criteri s'aplica fàcilment a qualsevol cas. 
   'This criterion applies easily to any case.'
   c. Aquesta conclusió es dedueix fàcilment de la teva hipòtesi. 
   this conclusion deduces easily from your hypothesis
   'This conclusion easily follows from your hypothesis.'

The parallelism between middles and -ble adjectives is more evident if we adopt Pesetsky's (1990) analysis of middles. In his opinion, English middle forms are bimorphemic, they are formed by a verbal root followed by a zero suffix called MIDDLE, which does not change the category of the verb and absorbs the θ-role of the external argument and case:

(27)  
   a. Bureaucrats bribe-MIDDLE t_i easily
   b. \[\text{[bribe}_{V}\text{MIDDLE}_{V}\]
   c. \[\text{[[subornal}_{V}\text{ ble}_{A}\]

Leaving the category change aside, the job of the suffixes in (27b) and (27c) is analogous. Pesetsky proposes this null suffix for English based on Keyser and Roeper's (1984) observations (see fn. 3). One could entertain the hypothesis that in the Romance languages the

9 Notice that these examples are a counterexample to de Miguel's (1986) hypothesis, according to which only the Theme may be externalized. She analyzes the complement of some of these verbs as a Theme (e.g. navigate 'to navigate').
clitic *se/si*, which corresponds to the English null affix, be analyzed as a morphological affix and not as a syntactic one, as Keyser and Roeper do.

We can conclude that the behavior of *-ble* adjectives is not a real problem for the hypothesis that non-eventive constructions only allow internal inheritance. Independent principles of Grammar explain the apparent factual contradiction.

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