

# Is the English possessive 's truly a right edge phenomenon?\*

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## 1. The English possessive

The English possessive (or genitive) marker 's is commonly described as a CLITIC. In many textbooks, it is the standard example of a clitic:

In addition to inflectional affixes, there is another class of bound morphemes called **clitics**, which may be appended to independent words by syntactically motivated rules. Words to which clitics are attached are called **hosts** (or **anchors**). *Mary, Tonga, and newspaper* are the hosts of the genitive clitic *-s* in [10.58]:

[10.58] a. Mary's car

b. The Queen of Tonga's tiara

c. The editor of the Manchester Guardian newspaper's car

(Katamba 1993: 245)

Or:

The *-s* ending is not a case ending in the sense which applies to languages such as Latin, Russian, and German. It can be more appropriately described as a 'postposed enclitic': *ie*, its function is parallel to that of a preposition, except that it is placed after the noun phrase.

(Quirk, Greenbaum, Leech & Svartvik 1985: 328)

*Clitic*: an element which does not have the independence of a word (prosodically) but which is still positioned by the same rules as independent words, i.e. by syntactic rules:

- this is assumed to be the case with the possessive 's. With reference to the noun phrase *that man you met yesterday's bicycle*, Carstairs-McCarthy states:

What *-s* attaches to is a whole noun phrase (*that man you met (yesterday)*), including whatever modifiers it may contain following the noun at its head (*man*, in this instance). So *-s* belongs in the study of syntax, not morphology.

(Carstairs-McCarthy 2002: 37)

Zwicky (1987):

- purely syntactic approach makes the wrong predictions about the interaction between 's and the word it attaches to
- if the possessive 's was positioned by straightforward syntactic rules, the morpho-phonological interaction between this element and the word to which it attaches

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should only be of the kind that occurs between words, not the kind typical of morphological attachment such as affixing.

- the internal structure of the host word and the host phrase should be invisible to the clitic – Bracketing Erasure Principle (cf. Kiparsky 1982): the assumption is that a word is formed in the morphology, and once the word is inserted into the syntax, any morphological structure there may be has become invisible.

Zwicky (1987: 140-1):

- data showing that native speaker choices with respect to the realisation of the possessive depend on whether the final element of the host word is part of the root or part of a suffix
- it seems clear that speakers do make a distinction between the 's attaching to morphologically simple words and to morphologically complex words
- thus, possessive 's has some affix-like properties, i.e. it is a 'phrasal affix', a term now also adopted by textbook authors:

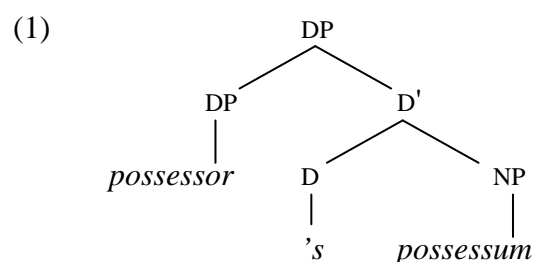
The morpheme *s* used here [e.g. in *the King of England's hat*] is historically a genitive suffix, but it has developed into a clitic that can be attached at the end of the possessor phrase. Hence it is sometimes called a phrasal affix. (Booij 2005: 166-7)

## 2. Formal analyses

### 2.1. Clitic or phrasal affix

Clitic analysis:

- possessive 's would usually be assumed to have independent syntactic status in the sense that it is found under its own terminal node in a syntactic tree
- generally be assigned to the category Determiner because it is assumed to be connected to definiteness in a way similar to determiners (though see Lyons (1989, 1999) and Koptjevskaja-Tamm (2003) for discussion of non-definite possessive noun phrases). This would give rise to trees such as (1) (see for instance Sag & Wasow 1999: 141):



- since 's is prosodically deficient, it will always attach leftwards and hence end up on the right edge of the possessor DP.

Zwicky (1987) and later Lapointe (1990) and Miller (1992) provide GPSG analyses of the English possessive 's as a phrasal affix which aim to capture these apparently conflicting properties of being positioned syntactically but attaching morphologically.

- they assume an EDGE feature which can have the feature values FIRST or LAST. This feature distributes from the mother node to the leftmost or the rightmost daughter, unlike most features, which distribute from mother to head daughter.

The clitic and the phrasal affix analyses of possessive 's differ only in the view taken of the morphophonological interaction between the 's and the host word: they do not differ with respect to the placement of the 's within the phrase, which is unambiguously assumed to be at the right edge.

It is well-known that the English possessive marker 's appears on the last lexical item of the possessive NP. (Miller 1992: 341)

The distribution of the exponence of the feature POSS is governed by the linear precedence rule

(2)  $X < \text{last}$

i.e. all elements precede the exponence of the LAST feature.

What these analyses have in common is that they take it as quite unproblematic to assume that possessive 's occurs on the right edge of the possessor noun phrase.

## 2.2. Predictions for possessive 's

The two types of analyses make the same predictions with respect to the positioning of the possessive 's: it occurs on the right edge of the possessor noun phrase.

It is well known that there are a number of constraints disfavouring possession being expressed by a possessive 's – as opposed to the *of*-construction – for instance inanimacy or low topicality of the possessor (see for instance Rosenbach 2002, 2003):

- if the clitic or right edge phrasal affix analyses are straightforwardly correct, then whenever the semantic and information structural constraints are met, we ought to get the 's possessive. The absence or presence of postmodification, the length of any postmodification or the category of the final word should not matter. This is captured in the first of the clitic criteria posited by Zwicky & Pullum:

A. Clitics can exhibit a low degree of selection with respect to their hosts [*note omitted*], while affixes exhibit a high degree of selection with respect to their stems. (1983: 503)

In this paper we will explore the extent to which right-edge positioning accurately captures the properties of the possessive 's in English.

## 3. What descriptive grammars say

### 3.1. Quirk et al. (1985)

- concentrate on choice between possessive 's and *of*-genitive (1985: 318-31, 1275-82)
- treat all possessive 's (apart from the so-called descriptive genitive) as having the FUNCTION of determinative and the FORM of a 'postposed enclitic' which is 'placed after the noun phrase' (1985: 328):

This view is inescapable if we take into account the so-called group genitive (or 'embedded genitive'), in which the genitive ending is added to a postmodifier:

the teacher of music's room ['the room of the teacher of music']

Obviously the 'possessor' in this example is the teacher, not the music; but the 's cannot be added to the head, as one would expect if 's could only be a noun inflection. Instead it is regularly added to a prepositional postmodification which is part of a name or a compound noun phrase:  
[examples omitted]

The last sentence implies in practice that the 's always attaches to a noun – a restriction which would be striking.

They also describe the group genitive as a case of multiple premodification (1985: 1344-5):

The group genitive is not normally acceptable when the postmodification is a clause, though in colloquial use one sometimes hears examples like:

*Old man what-do-you-call-him's house has just been sold.*  
*?Have you seen that man standing at the corner's hat?*  
*?Someone has stolen a man I know's car.*

The only explanation offered for the failure to use a group genitive is that it may sometimes be misconstrued as if it weren't a group genitive at all but an ordinary genitive (1985: 1345):

- (3) \*the man with the cat's ears [in sense 'the ears of the man with the cat']
- (4) the man in the car's ears ('might pass muster')

In sum:

- what matters is avoidance of ambiguity – and such potential ambiguity can only occur when the NP ends in a noun (which is not the head noun)
- cannot explain the absence of group genitives where the possessor NP ends in an adverb, verb or other part of speech
- vague comment cited above about the general unacceptability of the group genitive after clausal postmodification, especially in writing

### 3.2. Biber et al. (1999)

The *Longman Grammar* bases most of its analyses and organisation on Quirk (1985) – not always with identical terminology, however – and adds an element of systematic corpus analysis by genre and variety.

- genitive – a 'case inflection for nouns' (1999: 292)
- '[m]ost nouns rarely occur in the genitive' (1999: 293)
- '[s]-genitives are outnumbered by *of*-phrases in all registers' (1999: 301)
- group genitive – '[t]he genitive suffix is attached to the last word of a genitive phrase'.

There is no information on constraints in usage or on frequency, apart from the following comments (1999: 298):

The group genitive is chiefly used with more or less fixed collocations. When there is post-modification, the more common alternative is to resort to an *of*-phrase rather than an *s*-genitive [cross-reference omitted].

### 3.3. Payne & Huddleston (2002)

Distinction in type of genitive (Payne & Huddleston 2002: 479-81): head genitives (inflection on the head noun) v. phrasal genitives (= group genitive):

- follows from decision to analyse personal pronouns as a subtype of noun, with possessive determiner use treated as the genitive case of the pronoun (2002: 327, 470-72), e.g. the pronoun *I*, for example, has as its normal genitive forms *my* and *mine* (dependent and independent, respectively). The crucial data are the following pairs of examples (2002: 479, their [65])

- (5) a. *my* facial expression                      b. *the man opposite me's* facial expression  
(6) a. *my friend's* father                         b. *a friend of mine's* father

- if both a. and b. patterns involved the same construction – namely, a possessive marker simply being added to the last word in the phrase – there would be no explanation for the form *me's* rather than *my* in (5)b, and similarly for *mine's* rather than *my* in (6)b.
- rather, the genitive marking is conditioned by the type of genitive: HEAD in the a. examples vs. PHRASAL in the b.

Payne & Huddleston go on to claim that genitive marking is inflectional, not clitic:

- (only applicable to head genitives) the fact that genitive *my*, *our*, etc. cannot be divided into two syntactic words
- (works with both kinds of genitive) the sensitivity of the genitive to the morphological form of the word it attaches to. This relates to the criteria posited by Zwicky & Pullum (1983) already discussed. Like Quirk et al., Payne & Huddleston state as a descriptive fact that the phrasal (= group) genitive 'is normally restricted to post-head dependents with the form of a PP, including *else*' (2002: 479).
- There is no theoretical explanation.

## 4. A first look at the data

### 4.1. Ordinary genitives

Most of the examples given below appear in the spoken component of the BNC (approx. 10 million tokens), which contains 11,228(?) tokens of possessive 's, or 11.2 instances per 10,000 words (24.0 in ICE-GB). In most of these cases, 's is attached to the head noun:

- (7) John's little Metro (BNC: F8M 391)  
(8) the Chairman's name and address and telephone number (BNC: D95 167)  
(9) the evening's business (BNC: D91 322)

### 4.2. Group genitives

Only five cases appear in the spoken BNC (i.e. some 0.04% of all possessive 's constructions):

- (10) the prime minister of the time's favourite WDA head (BNC: K6E 254)  
(11) the lady of the house's dress (BNC: KRJ 123[124])  
(12) the leader of the council's shirt (BNC: JT7 095)  
(13) the then president of America's daughter (BNC: K62 006)  
(14) China as a whole's economic development (BNC: JJN 426)

In the spoken part of ICE-GB there are no real group-genitives at all, only NPs of the form *someone/somebody else's*.

### 4.3. Post-modification

Near-absence of group genitives may stem from a low frequency of POSTMODIFICATION in NPs? Perhaps noun phrases in general rarely contain postmodification. In order to test this we have looked in the spoken portion of ICE-GB. Post-modification in normal NPs was common enough. In possessor NPs with 's (1,444 in total) there were just 5, all of the form *X else's*. Therefore

- rarity of group genitive cannot be ascribed to a more general lack of NPs with postmodification
- since possessive 's construction (as opposed to the *of*-construction) is favoured for possessors with high topicality, it could be argued that one would expect them to have less modification overall. However, given the sheer difference between the two ratios, we assume that this cannot be the explanation.

### 4.4. Avoidance strategies

When the head is not the rightmost element in a possessor, speakers avoid using the possessive 's construction and adopt *avoidance strategies*:

- *of*-construction (even when other factors would militate against the choice)
- *split genitive*: the 's is attached to the head noun and the remainder of the possessor phrase is placed after the possessum

Five split genitives appear in the spoken BNC, (15)–(19):

- (15) the gentleman's name with the tape recorder (BNC: FM7 8); compare *the gentleman with the tape recorder's name*
- (16) the manager's secretary of the Co-op (BNC: FYH 383); compare *the manager of the Co-op's secretary*
- (17) somebody's desk who was actually supposed to carry out the work (BNC: H48 740); compare *somebody who was actually supposed to carry out the work's desk*
- (18) a twinkle in somebody's eye with no money at all to spend on physical work (BNC: H48 827); compare *a twinkle in somebody with no money at all to spend on physical work's eye*
- (19) my neighbour's husband down the stair (BNC: K6L 404) [Scottish English]; compare *my neighbour down the stair's husband*

Examples from elsewhere:

- (20) the President's mother of America (*When The Levees Broke – Act III*, BBC4 19.12.06); compare *the President of America's mother* (and see also (13) above)
- (21) the woman's bedroom who I lived with (*The 60s: The Beatles Decade*, UK TV History 20.1.07); compare *the woman who I lived with's bedroom*

Explanation:

- a speaker has started with the possessor rather than the possessum and thus has committed themselves to a possessive 's construction rather than an *of*-possessive. However, they find they are dealing with a possessor that is a complex, non-head-final NP.

- the theoretical analyses and descriptive grammars all predict a group genitive.
- speaker actually produces a split genitive, with the 's attached to the head noun and not at the right edge.

## 5. Next steps for the project

- account for the actual behaviour of possessive 's, probably in terms of competing constraints belonging to various domains of linguistics: morphological, syntactic, semantic and pragmatic.
- choice between 's and the *of*-genitive – again probably in constraint terms
- parallel study of the possessive in Swedish
- more limited distribution of -s in Dutch
- diachronic path – including elements of grammaticalisation – by which the simple Germanic nominal case inflection developed into the various modern distributions we see today.

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