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SQUIB

On expanding accountability in the study of genitive variation: a reply to Biber, Szmrecsanyi, Reppen & Larsson (2023)¹

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Biber, Szmrecsanyi, Reppen & Larsson (2023) argue for a more liberal inclusion of genitive variants, evoking Labov's principle of accountability (Labov 1969: 737–8, fn. 20, 1972), which calls for the inclusion of all variants that are functionally equivalent and allow variation. They suggest that the term 'genitive' should be defined grammatically, as a restrictive modifier to the head noun, rather than semantically in terms of a possessive relation, thus redefining the linguistic variable for English genitive variation. In particular, they include noun modifiers as a third genitive variant (with *s*-genitives and *of*-genitives). In this reply I argue that the authors proceed from a notion of 'genitive' that is too broad, including variants that are not functionally equivalent and contexts that are not variable, thus actually violating the principle of accountability.

Keywords: genitive variation, noun modifiers, functional equivalence, accountability

1 Introduction

Biber, Szmrecsanyi, Reppen & Larsson (2023) (henceforth 'the authors') argue for a more liberal inclusion of genitive variants, in particular the inclusion of noun modifiers as a third variant. The authors evoke Labov's principle of accountability (Labov 1969: 737–8, fn. 20, 1972), which states that it is essential to consider all variants which could have been used within a given context for a study of variation to be able to calculate the correct distribution of the variants, i.e. relative frequencies. Importantly, however, only those contexts should be included that are 'functionally parallel as well as variable' (Tagliamonte 2011: 10). In other words, only those variants should be included that are functionally equivalent and that allow variation of all variants.

The authors suggest widening the scope of English genitive variation in three ways to adhere more closely to the principle of accountability:

- (a) extension of the definition of 'genitive'
- (b) inclusion of noun modifiers as a third genitive variant
- (c) inclusion of non-interchangeable tokens

¹ I am grateful to Joan Bresnan for most helpfully commenting on previous versions of this reply and to the *ELL* editors and reviewers for valuable suggestions.

In the following I argue that the authors proceed from a notion of ‘genitive’ that is too broad (section 2.1). They include variants that are not functionally equivalent (sections 2.1 and 2.2) and contexts that are not variable (section 2.3), thus actually violating the principle of accountability.

2 The scope of genitive variation

2.1 *The definition of the ‘same thing’ – or: what counts as ‘genitive’?*

The authors are right in claiming that the literature on genitive variation is rather vague in the use of the term ‘genitive’. Strictly speaking, it refers to a morphological genitive marking, a definition which is correctly ruled out by the authors for a study of genitive variation, as it would only allow the *s*-genitive as a genitive variant,² hence there would not be any variation. Rather, the term ‘genitive’ is conventionally used in studies of genitive variation to indicate a possessive relation between two noun phrases, a possessor (or dependent) and a possessum (or head); see e.g. Rosenbach (2002, 2014, 2019). The authors (p. 99) reject this definition as

unsatisfactory because only a small proportion of the tokens for all three variants express the meaning of possession. That is, even interchangeable tokens often express many other meanings, including ‘prototypical’ relationships, like kinship, body parts, ownership and part/whole, as well as a wide range of non-prototypical relationships, like undergoer, property, creator, theme ...

It is not quite clear from this statement how the authors define ‘possession’, but they suggest that it is construed too narrowly to account for all genitive variants. Note, however, that the linguistic concept of ‘possession’ can indeed include a wide range of semantic relations far beyond the common-sense meaning of ‘possession’ as ownership and thus is much broader than the authors make us believe; see the following definition of possession by McGregor (2009: 1):

it is a relational concept that potentially covers a wide range of conceptual relations between entities, including, for human beings, between persons and their body-parts and products, between persons and their kin, between persons and their representations (e.g. names, photographs), between persons and their material belongings (animate and inanimate items they own), between persons and things they have usership-rights to or control over, between persons and cultural and intellectual products, and so on. For other animates and inanimates a more restricted range of conceptual relations is generally available.

The concept of possession can cover core possessive relations such as kin terms (*John’s mother*), body parts (*John’s arm*) and ownership (*John’s car*), as well as more non-prototypical possessive relations such as social relations (*John’s friend*), author or originator (*John’s poem*), disposal or use (*John’s office*), carrier of properties (*John’s courage*), locative relations (*London’s underground*), part/whole relations (*the chair’s leg*)

² On the controversial status of the English possessive *’s* as an inflectional ending or a clitic see e.g. Anderson (2008).

or even temporal relations (*Sunday's newspaper*), to name just the most common relations (cf. Koptjevskaja-Tamm 2002: 147). Subjective and objective relations, where the head noun is a deverbal noun, as in *John's writings* (subjective) or *John's murder* (objective), do not entail a relation between a possessor and a possessum, but they so to speak 'borrow' the structure of possessives in English to fill the argument slot of the nominalized verb (cf. Koptjevskaja-Tamm 2002: 166). The problem with defining the concept of possession for a corpus study of English genitive variation is not that it is too narrowly construed but that it covers such a wide and diverse range of conceptual relations.³

Instead of defining 'genitive' semantically, in terms of possession, the authors provide a grammatical definition and consider any noun phrase functioning as a restrictive modifier of the head noun as a genitive variant (p. 99). This, however, is far too broad. The definition of 'sameness' in the sense of Labov (1972) should be based on semantic/functional grounds, not on a grammatical one alone. And while the notion of 'restrictiveness' is certainly useful, as it excludes expressions such as *a man of honour* or *a cup of gold*, where the *of*-phrase is a non-restrictive modifier, the authors fail to consider the two different ways in which an adnominal genitive may restrict: on the one hand, specifying (or determiner) *s*-genitives, as in *John's mother*, restrict the reference of the head noun, i.e. they identify *whose* mother it is, and thus may be considered as reference points or referential anchors (e.g. Taylor 1996; Haspelmath 1999, *inter alia*). To function as a referential anchor, the possessor itself must be referential, i.e. refer to a specific entity (Taylor 1996, *inter alia*). Classifying *s*-genitives as in *lawyer's fees*, on the other hand, are not referential (*lawyer* does not refer to a specific lawyer but generically to lawyers as such); they restrict the denotational class of the head noun, i.e. specify *the type of fees* (i.e. those typical of lawyers); for illustration see figure 1 (see also Rosenbach 2019: 763–4).⁴

So while specifying and classifying genitives both restrict, they restrict over different semantic domains, i.e. the reference of the matrix noun phrase (specifying genitives) versus the denotational class of the head noun (classifying genitives). Specifying and classifying genitives are not functionally equivalent and thus the authors' definition of 'genitive' as the linguistic variable is too broad.

Specifying genitives as in *John's mother/house/office/courage*, traditionally called 'Saxon genitives', constitute what may be called 'core possessives' as there is a 'possessor', i.e. somebody (*John*) who possesses something in the widest sense of the

³ See Rosenbach (2019: section 3) on the concept of 'possession' and operationalizing it for the study of 'classic' English genitive variation (i.e. the variation between the *s*-genitive and the *of*-genitive) in terms of referentially anchoring (i.e. reference-restricting) possessive relations; see also further below. In section 3 I will extend this operationalization to include noun modifiers as variants.

⁴ There is another type of *s*-genitive in Present-day English, i.e. measure genitives (*an hour's delay, one dollar's worth of chocolate*), which combines properties of both specifying and classifying *s*-genitives; cf. Payne & Huddleston (2002: 470). I will ignore measure genitives in this reply as they have barely been studied, though it should be noted that some measure *s*-genitives do alternate with noun modifiers and *of*-genitives, e.g. *the ten-month layoff vs the ten-months' layoff* (vs *the layoff of ten months*); see also Rosenbach (2006: 113–14).

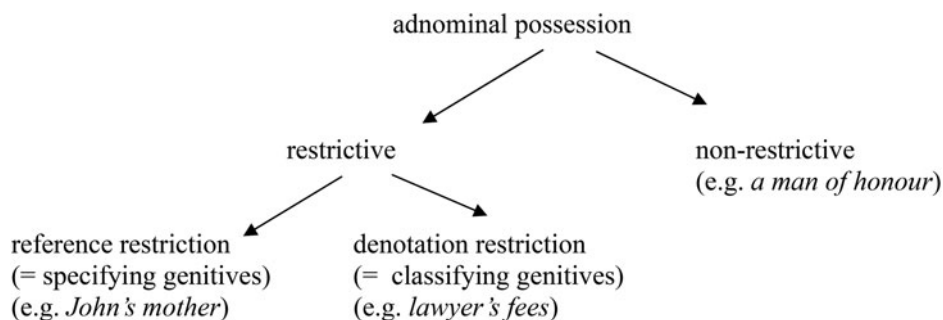


Figure 1. Different types of adnominal possession

word. It is thus the alternation between specifying (i.e. reference-restricting) adnominal genitive constructions, typically *s*-genitives and corresponding *of*-genitives (on the inclusion of noun modifiers see section 2.2 below), that is studied as ‘genitive variation’ (for a detailed list of the inclusion/exclusion criteria see e.g. Bresnan *et al.* 2017). Classifying genitives as in *lawyer’s fees* or *passenger’s seat*, in contrast, are a more marginal and less productive type of possessive, where the dependent cannot really be called a ‘possessor’ in the strict sense of the term despite the presence of the possessive marker *’s*. Classifying *s*-genitives typically alternate with noun modifiers and usually call for another prepositional variant than *of* (see also section 2.2 below); cf. Taylor (1996: chapter 11) and Rosenbach (2006, 2007b).

Both types of restrictive modifiers – and thus functionally non-equivalent constructions – are, however, included in the authors’ study as can be seen from their inclusion of tokens like *Jennifer’s house* (specifying *s*-genitive), *the validity of teacher’s assessments* (classifying *s*-genitive), *fruit salad* and *audio tape* (classifying noun modifiers).⁵

2.2 The inclusion of noun modifiers as a third genitive variant

The authors include noun modifiers as a third variant to genitive variation. Noun modifiers may indeed alternate with genitive constructions in English (Rosenbach 2007a, 2007b, 2010, 2019; Breban *et al.* 2019) – however, only in certain contexts and under certain conditions. In a study of genitive variation, we need to focus on those contexts where all three variants (the *s*-genitive, the *of*-genitive and noun modifiers) overlap, i.e. are functionally equivalent in the variationist sense,⁶ as illustrated in figure 2.

Looking more closely, however, the web of English genitive variation is more complex. Noun modifiers, just like *s*-genitives, are not a homogeneous class, and they enter into different types of alternations with different types of *s*-genitives and *of*-genitives.

Typically, noun modifiers have classifying function. In *lawyer fees* the noun modifier *lawyer* defines a type of fee and not whose fees; likewise *passenger* in *passenger seat*

⁵ See Biber *et al.* (2023: 107) for citing these examples from their database.

⁶ See Rosenbach (2019) for an in-depth discussion on the (non-)equivalence of noun modifiers with specifying *s*-genitives; see also Breban (2018) and Breban *et al.* (2019).

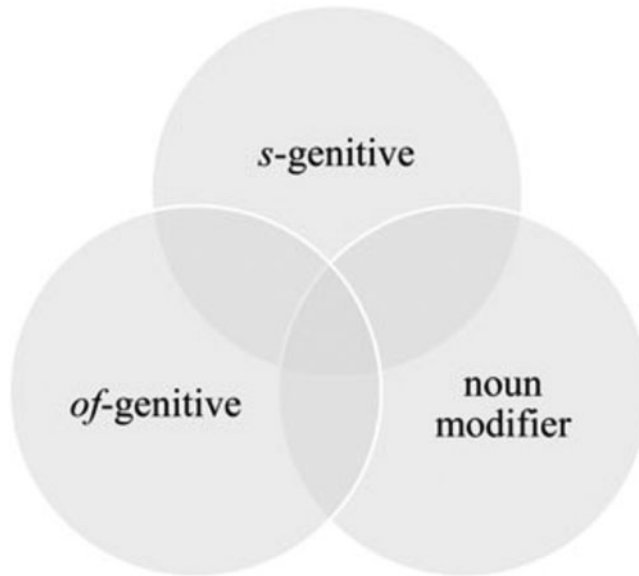


Figure 2. The (simple) web of English genitive variation (cf. Rosenbach 2019: 790)

describes a type of seat. Classifying noun modifiers may alternate with classifying *s*-genitives (*lawyer's fees*, *passenger's seat*). While classifying noun modifiers may sometimes alternate with a corresponding *of*-phrase (*the fees of lawyers*), they usually call for another prepositional variant, as illustrated in (1) below.

- (1) (a) a women's magazine, a women magazine, a magazine **for** women
 (b) a passenger's seat, a passenger seat, a seat **for** passengers
 (c) a summer's day, a summer day, a day **in** summer

Noun modifiers may also have identifying function as in *the FBI director* or *the barn door*, helping to identify the referent of the noun phrase, in other words a specific director or door. As such, they may alternate with specifying *s*-genitives and *of*-genitives as in (2); cf. Rosenbach (2007a, 2010, 2019).

- (2) (a) the FBI's director, the director of the FBI, the FBI director
 (b) the barn's door, the door of the barn, the barn door

In order to have identifying function, however, the noun modifier itself must be referential, which is a problem, as noun modifiers are not full noun phrases and as such are not referential. However, proper nouns may inherit their unique reference as modifiers (cf. Schlücker 2013: 466; Rosenbach 2019: 765–6), thus allowing alternations such as in (2a).

That said, not every proper noun modifier has identifying function; see the examples in (3), where the proper noun modifiers specify a type of grunt in (3a), or accent (3b) or gaze

(3c), i.e. they all have classifying meaning in the widest sense, answering the question of ‘what type of X?’ rather than ‘whose X?’.

- (3) (a) Crowe repeated the movement, adding **a Monica Seles grunt**. (Kathy Reichs, *Fatal Voyage*, 331)⁷
 (b) “Enid dahling”, the turd mocked in **a David Niven accent**, ... (Jonathan Franzen, *The Corrections*, 331)
 (c) Larke fixed him with **a sincere Sheriff of Mayberry gaze** (Kathy Reichs, *Fatal Voyage*, 17)

Common noun modifiers as in *the barn door* may receive a referential interpretation by the context, when a barn has been mentioned previously, though they could also be interpreted referentially by a bridging inference, i.e. our world knowledge that tells us that if there is a barn door there (usually) must also be a (specific) barn (see also Rosenbach 2019: section 3.4).

Thus, isolating cases of noun modifiers with identifying meaning in a corpus study is a challenge as, strictly speaking, we need to evaluate every single occurrence and, if the noun modifier is a common noun, consider the broader context to be able to determine if the noun modifier may indeed be interpreted referentially and have identifying meaning and thus can be equivalent to a specifying *s*-genitive.

It is also important to note that identifying noun modifiers are typically not used with core possessive relations such as ownership, kin relations, or body parts (Rosenbach 2007a; Breban 2018), so while we can say *the woman's house/father/arm*, we cannot say **the woman house/father/arm*. There are exceptions to this rule (e.g. *the Whitelaw house*), but the use of noun modifiers with these semantic relations is infrequent (Schlücker 2018: 294; Rosenbach 2019: section 3.3). Breban *et al.* (2019) propose a hierarchy of semantic relations, which defines the likelihood of a specifying *s*-genitive as opposed to a proper noun modifier. Their ‘possessor’ relation, defined as ownership, is most strongly associated with specifying *s*-genitives (e.g. *Subway's sandwich shop*), while their ‘name’ relation is most strongly associated with proper noun modifiers (e.g. *the Sainsbury family*). While the type of semantic relation does not appear to be a categorical context for either specifying *s*-genitives or (proper) noun modifiers – at least not within the selected semantic relations tested in Breban *et al.*'s (2019) experimental study – it turns out to be an important constraint on the choice of a noun modifier as a genitive variant and should thus be considered in a quantitative study, something not done by the authors. Instead, the authors define what they call ‘semantic relation’ as what turns out to be (mainly) the factor of animacy (p. 104), i.e. they code the head and the dependent for ‘animate’, ‘group/institution’, ‘locative’, though they also code ‘quantity/amount’ (e.g. *bit, chunk, piece, part*)⁸ and for specific name

⁷ The highlighting of noun modifiers and *s*-genitives in cited examples is always mine throughout this squib.

⁸ Quantifying relations as in *a bit/piece of cheese* should actually be excluded from a study of genitive variation as the possessor/dependent is not referentially restricting the head. Rather, the relation is the other way round, with the head

relations where the dependent is a collective proper noun naming a corporation or agency (e.g. *NBC*).

Locative noun modifiers easily alternate with specifying genitive constructions as in (4a), where *Quebec history* alternates with *Quebec's history* and *the history of Quebec*, paraphrasable as 'Quebec has a history'. However, locative noun modifiers that do not convey a HAVE relation (in the widest sense) do not seem to alternate with *s*-genitives and *of*-genitives; see e.g. (4b) or (4c), where the locative proper noun modifiers specify an IN relation (*the house in Kensington*) or TO relation (*the bus to Sligo*) rather than a HAVE relation and do not allow a corresponding *s*- or *of*-genitive (**Kensington's house/ *the house of Kensington, *Sligo's bus/ *the bus of Sligo*); see also Rosenbach (2019: 778–9).

Note that in all examples in (4) the locative noun modifier helps to identify the referent of the noun phrase. This suggests that having identifying function is a necessary but not a sufficient criterion for a noun modifier to alternate with specifying genitives – the relation expressed must be a possessive one, i.e. a HAVE relation.

- (4) (a) ..., but she's also interested in **Quebec history**. (Kathy Reichs, *Death du Jour*, 72)
 (b) There must be paperwork on it somewhere. At **the Kensington house**, I should guess? (Elizabeth George, *Playing for the Ashes*, 162)
 (c) On Tuesdays evenings, a bus headed for Sligo goes by on the main road sometime around five,... [...] but even four-fifteen would be cutting it close for **the Sligo bus** (Tana French, *The Searcher*, 125)

These are only a few examples to demonstrate that, firstly, noun modifiers, like *s*-genitives, may have both classifying and identifying/specifying meaning, though in contrast to *s*-genitives, the classifying function is the core function of noun modifiers while their identifying/specifying function is more marked. These are different functions that should not be lumped together in a study of genitive variation. Secondly, the range of contexts in which noun modifiers may have identifying function and alternate with specifying *s*-genitives is restricted and in ways we do not fully understand yet. Accordingly, the area of overlap where all three genitive variants may alternate is still a bit of a black box. More research is needed to further specify those contexts of usage that do – and do not – allow such alternation.

Figure 3 modifies the (simple) web of variation between *s*-genitives, *of*-genitives and noun modifiers, introduced at the beginning of this section in figure 2, by distinguishing the different types of *s*-genitives and noun modifiers and how they enter into different types of alternation with each other and with *of*-genitives.⁹ Core usages of the constructions are given in the centre and are shaded more darkly, against more

(*bit, piece*) individuating the possessor/dependent (*cheese*). Such partitives and pseudopartitives do not alternate with *s*-genitives (**cheese's bit/piece*).

⁹ Note that figure 3 still is a simplification as it ignores measure genitives (*an hour's delay*), *to*-genitives (*servant to the king*) and other prepositional constructions potentially expressing specifying function (rarely, see e.g. *the director for the FBI*) or classifying function (commonly, see e.g. *a magazine for women, a day in summer*).

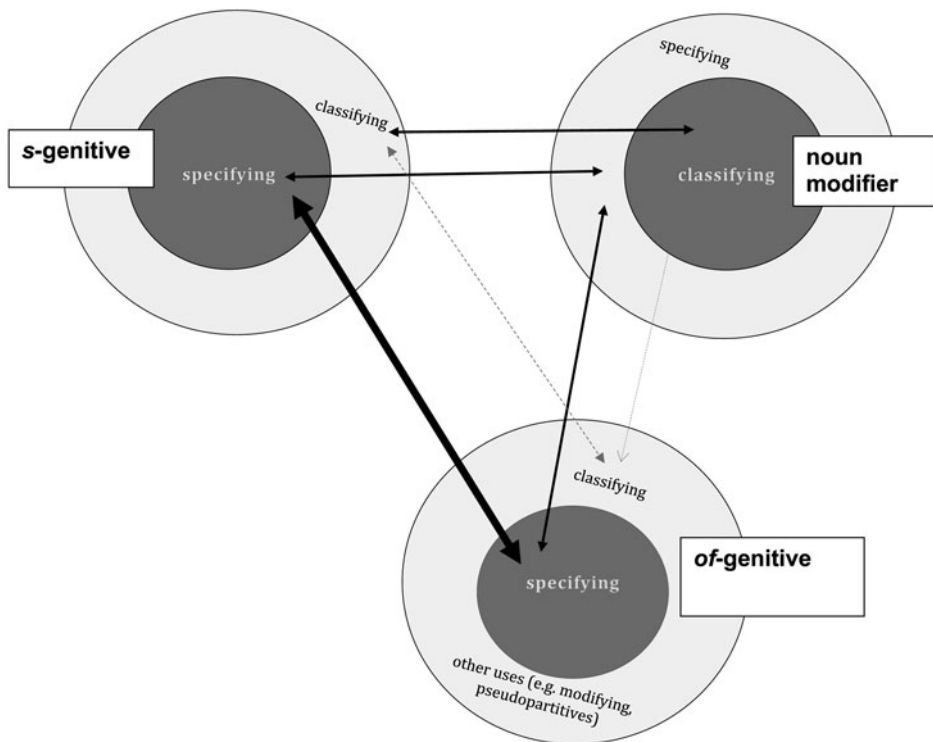


Figure 3. The complex web of English genitive variation

marginal uses, placed at the periphery in lighter grey. I follow the authors in assuming that *of*-genitives typically have restrictive function, though note that more research is needed to more firmly establish this claim empirically. Also, my notion of ‘specifying’ is confined to reference-restricting dependents. Non-restrictive modifier and classifying uses of *of*-phrases are considered more marginal here. The boldness of the arrows stands for the strength of the alternation, distinguishing between (a) the most productive alternation, i.e. the one between specifying *s*-genitives and *of*-genitives, (b) the more constrained alternation between specifying noun modifiers and the other genitive variants, and (c) the weakest potential for alternation in the case of classifying uses of the *of*-genitive as indicated by the lighter, dotted lines.

2.3 Categorical vs non-interchangeable contexts

The authors further argue, to my mind correctly, that the interchangeability of individual genitive constructions is not a necessary criterion for inclusion as coders’ judgements can be subjective. Rather, the procedure is to first determine classes of contexts that categorically allow one variant only (‘categorical contexts’) and then exclude all such tokens from the analysis (cf. Rosenbach 2014: 223–5). This may result in the inclusion of tokens that may not seem interchangeable (as in (5), cited from Rosenbach 2014:

224), but which could alternate in theory because we do not know any good reason why they shouldn't.

- (5) (a) The release of 14 people arrested in the first crackdown on antigovernment protesters
 (b) ?? 14 people arrested in the first crackdown on antigovernment protesters' release

However, this is only a safe procedure if we indeed know the categorical contexts, and apply them. While there is a longstanding research tradition into 'classic' genitive variation, i.e. the variation between the *s*-genitive and the *of*-genitive (see Rosenbach 2014 for an overview), research into noun modifiers as potential genitive variants is relatively recent, either focusing on the constructional gradience between noun modifiers and *s*-genitives (Rosenbach 2006, 2007a, 2007b, 2010, 2019) or solely on proper noun modifiers and their semantic overlap with *s*-genitives (e.g. Breban 2018; Breban *et al.* 2019). The few categorical contexts for noun modifiers given by the authors (p. 102), i.e. title nouns (*President Biden*), proper nouns (*Pennsylvania Steel Company*) and appositives (*fitness expert Dr Jones*) are all important and correct, but they are not sufficient. While most specifying *s*-genitives may be converted into a corresponding *of*-genitive, unless they are, for example, idiomatic or fixed expressions (e.g. *Murphy's Law*) or elliptic (*this book is John's*), noun modifiers do not alternate that easily with *s*-genitives and *of*-genitives. We currently do not know why, for example, *John's house* doesn't alternate with **the John house* but *the Whitelaws' house* may alternate with *the Whitelaw house*. Is there a rule that bans first names as identifying noun modifiers or are there exceptions?¹⁰ While interchangeability of individual tokens is not the ultimate criterion, the examples above do raise the question of what constrains the alternation of noun modifiers with the other genitive variants. Research into noun modifiers and their alternation with genitive constructions is still in its infancy and we are simply not in a position yet to be sure we know most critical categorical contexts when including noun modifiers as genitive variants (see also Rosenbach 2019: section 4.2).

The addition of a third genitive variant, i.e. noun modifiers, also raises the important question of how to define a categorical context when there is a choice between three variants instead of the usual two. The authors excluded those cases from their study 'where only one variant was possible because of a categorical rule' (p. 102). This is the standard procedure for dealing with categorical contexts in the case of two variants. If only one variant can be used in a certain context, the other one is automatically ruled out. With three variants, however, this procedure needs to be modified. How should we deal with contexts ruling out one variant but allowing the other two? The authors do not explicitly discuss this type of situation in their article, but they (p.c.) confirm that for them it is sufficient if there is a choice between two of the variants within a given

¹⁰ Classifying noun modifiers may occasionally occur with a first name, e.g. *A Pete speciality* (Kathy Reichs, *Fatal Voyage*, 93), to be read as 'a speciality typical of Pete'.

Table 1. *The various genitive constructions in noun phrase structure*

Genitive variant		DET	PRE-MOD	Prehead	Head	POST-MOD
Specifying (reference restriction)	<i>s</i> -genitive	<i>the</i>			<i>school's</i>	<i>director</i>
	<i>of</i> -genitive		<i>the/this/a</i>		<i>director</i>	<i>of the/this/a school</i>
Classifying (denotation restriction)	noun modifier		<i>the/this/a</i>		<i>school</i>	<i>director</i>
	<i>s</i> -genitive		<i>a/the/this</i>		<i>women's</i>	<i>magazine</i>
	noun modifier prepositional variant		<i>a/the/this</i> <i>a/the/this</i>		<i>women</i>	<i>magazine</i> <i>magazine for women</i>

context, not necessarily all three of them. However, the notion of variation by definition implies choice, and there is no true choice if one variant is categorically ruled out. Potential choice and thus variation is limited to the space of overlap in the use of *all* variants (see also [figure 2](#) above). So, in the case of three variants we must redefine what constitutes a categorical context as a context where one (or two) of the variants cannot be used.

In the following I will point out two such contexts which rule out one of the three genitive variants, i.e. (i) the context of matrix noun phrases not determined by the definite article *the* and (ii) the context of possessors not determined by *the*, both contexts included in the authors' study.

Genitive constructions that are indefinite or start with a determiner other than the definite article *the* do not allow specifying *s*-genitives. To understand why this is the case we need to consider the different ways in which definiteness can be expressed in the different genitive constructions; [table 1](#) illustrates the structural positions of the possessors/dependents.

Specifying *s*-genitives (as in *the school's*) are in (central) determiner position, (typically) rendering the matrix genitive construction definite.¹¹ A corresponding *of*-genitive or noun modifier thus must be definite, too, and can only start with *the* and no other determiner, as the determiner slot is already taken by the *s*-genitive, disallowing any other determiner (cf. also [Rosenbach 2014: 224](#); [Bresnan et al. 2017: section 3.1](#)). For this reason, *of*-genitives and noun modifiers, as in *this director of the school/ this school director* or *a director of the school/ a school director*, do not alternate with *s*-genitives. That this context is, however, included in the authors' study is apparent from the examples in (6) to (10).

¹¹ On the vexed issue of the (in)definiteness with specifying *s*-genitives see e.g. [Taylor \(1996: 185–204\)](#) and [Rosenbach \(2019: sections 3.2 and 4.2\)](#).

- (6) ten or twenty photos of Taylor (example (14) in Biber *et al.* 2023: 123)
 (7) a CIA leak (example (21) in Biber *et al.* 2023: 124)
 (8) a squad of angry army reservists (example (30) in Biber *et al.* 2023: 124)
 (9) remnants of a more civilized time (example (34) in Biber *et al.* 2023: 125)
 (10) an enigmatic pattern of egg size variation (example (54) in Biber *et al.* 2023: 126)

The authors do acknowledge that ‘the *of*-genitive is categorically required when the head noun is indefinite (i.e. *some members of his cabinet*)’ (Biber *et al.* 2023: 97). It is not explicitly said why this context was still included – most likely because it only rules out specifying *s*-genitives but not *of*-genitives and noun modifiers. As argued above, however, if a context excludes a variant and thus no longer allows variation between all three genitive variants, this context must be excluded. As constructions with *of*-genitives and noun modifiers are neutral as to the definiteness of the matrix noun phrase and allow an initial determiner, the authors’ dataset will severely overrepresent these variants, which distorts the subsequent statistical analysis.

The expression of definiteness of the possessor is another context that rules out one variant, in this case noun modifiers. While the possessor in a specifying *s*-genitive and *of*-genitive is a full noun phrase, noun modifiers are nouns or nominals and thus cannot be independently determined. So, while a specifying *s*-genitive as in [*a school*]'s *director* can be converted into a corresponding *of*-genitive (*the director of a school*), there is no corresponding noun modifier. *A [school director]* determines the head noun *director* and not *school*. And *the [school director]*, although correctly expressing the definiteness of *director*, fails to express the indefiniteness of the possessor *school*. The three specifying genitive variants can thus only overlap in the context of definite possessors in definite matrix noun phrases starting with *the*. This categorical context has not been considered in the authors’ study, as is apparent from examples from their database such as *the base of her rib cage* (p. 124), *the breeding of his Blue Wyandotte bantam* (p. 124) or *the failure of a student enrolled at a campus during spring semester* (p. 126), to name just a few.

Table 2 briefly summarizes how the definiteness of the head and the possessor can be expressed across all three variants.

Table 2. *The expression of definiteness in the various genitive constructions*

Genitive variant		Definiteness	
		possessor	head (matrix NP)
Specifying	<i>s</i> -genitive	[+/-] definite	[+] definite
	<i>of</i> -genitive	[+/-] definite	[+/-] definite
	noun modifier	–	[+/-] definite
Classifying	<i>s</i> -genitive	–	[+/-] definite
	noun modifier	–	[+/-] definite
	prepositional variant	[+/-] definite	[+/-] definite

3 Summary – and a look forward

The authors include all restrictive modifiers in their study of genitive variation, not distinguishing between specifying and classifying functions and as such include contexts that are not functionally equivalent in the Labovian sense. In addition, they include contexts that are not variable across all three variants, in particular constructions with *of*-genitives and noun modifiers that are not determined by *the*, a context incompatible with specifying *s*-genitives, as well as possessors not determined by *the*, a context incompatible with noun modifiers. In their attempt to more accurately adhere to Labov's principle of accountability, the authors are actually violating it.

Yet, I would like to conclude on a more positive note. I applaud the authors for having taken up the challenge of including noun modifiers into a study of genitive variation, which will, I hope, stimulate further research into what contexts allow their alternation and what governs it. Indispensable, in my view, is the separation of specifying and classifying functions when selecting the variants. A study of genitive variation should then either focus on what I would like to call 'primary genitive variation', i.e. the variation between specifying genitives as in (11), or on 'secondary genitive variation', i.e. the variation between classifying genitives/modifiers as in (12), bearing in mind that the latter usually have prepositional variants other than with *of* as in (12b).

(11) (a) the FBI's director, the director of the FBI, the FBI director

(b) the barn's door, the door of the barn, the barn door

(12) (a) lawyer's fees, lawyer fees, the fees of lawyers

(b) the passenger's seat, the passenger seat, the seat for passengers

The main challenge when studying these alternations is to determine the contexts of use where *all three genitive variants* overlap in usage, and not only two as assumed by the authors. Let me spell out some absolute minimum requirements for identifying variable contexts for the three specifying genitive variants, i.e. primary genitive variation as in (11), in addition to the categorical contexts provided by the authors on p. 102:

1. Reference-restricting relation between possessor and possessum (head)
 - a. The possessor is referential/specific (or can be interpreted referentially).
 - b. The matrix genitive noun phrase refers to a specific referent.
2. Expression of a 'possessive relation', possibly defined as
 - a. a HAVE relation in the widest sense or expressing a subjective or objective relation,¹² and/or
 - b. replaceability by a possessive pronoun (*my, your, her, his, its, our, their*)
3. Focus on definite matrix noun phrases and possessors starting with *the*.

¹² Subjective and objective relations with nominalized verbal head nouns (*John's writings/murder*) in principle allow variation between noun modifiers and specifying *s*-genitives and *of*-genitives: *the eye's movement vs the movement of the eye vs the eye movement*.

While the authors did include important factors such as animacy, length, final sibilancy and register in their study, it would also be necessary to code for factors known to be vital in the use of specifying noun modifiers as genitive variants, such as e.g. (a) the type of possessive relation, and (b) the type of noun class of the possessor:

- a. proper noun vs common noun, and
- b. for proper nouns: first names and other names.¹³

A study including both specifying and classifying uses of genitives would be interesting for a quantitative study looking at the distribution of *similar* or *related* (and not necessarily functionally equivalent) constructions, but it is not clear how such a study could be done within the variationist approach, which relies on the comparison of *functionally equivalent and variable* variants. Rather, it would have to be a study rooted in theoretical frameworks suitable for the study of similar and/or related constructions, such as Construction Grammar (e.g. Goldberg 1995; Zehentner 2019) or versions of Exemplar Theory (e.g. Bybee 2006; Bresnan 2021).

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¹³ I suspect that the dispreference for identifying/specifying noun modifiers to occur with first names (**the John house/son/poem/courage/office*) is categorical, though only an explorative quantitative study will be able to establish this. If it turns out to be a categorical context, some of the most standard genitives (e.g. *John's house* etc.) will have to be excluded from a study of genitive variation including noun modifiers.

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