

Not every *whose* down in Who-ville likes
appearing a lot:
Pragmatic constraints on independent relative
whose

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Abstract

This paper examines the apparent gap in the English relative pronoun paradigm represented by independent relative genitive *whose*. Contrary to previous claims that English lacks this form entirely, I argue that its extremely limited distribution can be explained through a combination of syntactic, semantic, pragmatic, and information-structural constraints. Drawing on historical examples, contemporary usage, and cross-linguistic comparisons, I demonstrate that what appears to be a syntactic impossibility is in fact a highly restricted but grammatical construction. The study reveals how factors such as accessibility, topicality, and contrastive focus license the use of independent relative *whose* in specific contexts. This analysis has broader implications for linguistic theory, suggesting that apparent gaps in grammatical paradigms may sometimes be more accurately explained by considering the interface between syntax and pragmatics. The paper contributes to our understanding of the interplay between different linguistic levels in constraining grammatical constructions and highlights the importance of considering pragmatic and information-structural factors in syntactic analysis.

1 Introduction

In their 1973 squib, [Hankamer & Postal \(1973\)](#) claimed that English lacks an independent relative genitive *whose*. This stance would rule out constructions

like **the people [whose we saw]*. However, historical evidence and occasional modern usage suggest a more nuanced reality.

A key construction, seemingly overlooked by Hankamer and Postal, is illustrated in (1) from the *Cambridge grammar of the English language* (Huddleston & Pullum 2002, hereafter *CGEL*). This demonstrates a clear instance of genitive relative *whose*. The task will be to explain why its distribution is otherwise so limited that Hankamer and Postal would come to believe it is missing altogether.

- (1) *I was going to visit Lucy, [a friend of whose had told us of the accident].* [(50iv), 472]

Another case mentioned by *CGEL* is *whosever* in the free choice construction (2). Though Hankamer and Postal do not explicitly rule out this form of the word, they do imply that no independent relative genitive is possible.

- (2) *Take [whosever you like].* [fn 17, 1075]

This paper aims to provide a comprehensive analysis of independent relative genitive *whose*, examining its historical usage, contemporary occurrences, and the linguistic factors that govern its distribution. The investigation draws on historical examples from *The Oxford English Dictionary*, a set of contemporary examples found online, and theoretical analysis of syntax, semantics, and information structure.

The significance of this study lies in its exploration of the interaction between syntax, semantics, pragmatics, and information structure in constraining grammatical constructions. It also highlights the challenges in analyzing rare linguistic phenomena, especially when they exist at the boundaries of grammaticality.

2 Background and Terminology

2.1 Terminology

For clarity, this paper adopts terminology from *CGEL* for grammatical concepts and from Lambrecht (1994) for information-structural concepts:

- **Determiner:** A syntactic function in an NP typically filled by a determinative phrase (DP) but commonly filled by a genitive noun phrase (NP) such as *whose*.¹

¹Following *CGEL* and Chomsky (2020), I reject the so-called DP hypothesis. See Miller & Pullum (2022) for evidence and argumentation.

- **Dependent genitive:** A genitive pronoun functioning as a determiner in a noun phrase with an explicit head noun. For example, in the phrase *whose book*, *whose* is a dependent genitive.
- **Independent genitive:** A genitive pronoun in fused determiner–head function, where the noun phrase lacks an explicit head noun. For example, in the interrogative *Whose is this?*, *whose* is an independent genitive.
- **Independent relative genitive:** *Whose* used without a following noun in a relative phrase. This is the construction at the centre of the investigation, exemplified by sentences like **The guy [whose you saw]*.
- **Oblique genitive construction:** A construction in which the genitive is in the oblique of the *of* PP, commonly referred to as the “double genitive”, as in *a friend of mine*.
- **Integrated relative:** A type of relative construction which is tightly integrated into NP structure, not set off with a pause in speech. This is roughly a “restrictive relative”, such as *the folks [we met]*.
- **Supplementary relative:** A type of relative clause which is loosely attached the structure of another phrase and set off with a pause in speech. Roughly a “non-restrictive relative”, for example *I felt warm, [which was nice]*.
- **Fused relative:** A type of relative construction which is an NP headed by the relative word, such as *do [what you will]*, commonly known as a “free relative clause”.
- **Elliptical stranding:** A construction where an auxiliary verb (including *to*) remains in a clause though its complement has been elided.
- **Topicality:** The degree to which a referent in discourse is central, persistent, and cognitively prominent, often reflected in its grammatical coding and serving as the primary subject of ongoing communication.
- **Focus:** The semantic component of a pragmatically structured proposition whereby the assertion differs from the presupposition ([Lambrecht 1994](#)). It typically represents new or contrastive information.
- **Background(ing):** The process of framing information as less prominent or salient within discourse. Backgrounded information is typically presupposed, already known, or deemed less important by the

speaker. It contrasts with foregrounded information, which is generally new, significant, or the main focus of attention. Backgrounding can be achieved through various linguistic strategies, including syntax (e.g., word order), morphology (e.g., tense-aspect markers), prosody, and information structure (Hopper 1979).

- **Contrastive focus:** A subtype of focus where the focused element is understood in contrast to a limited set of alternatives that are either explicitly mentioned or implied in the discourse context (Rooth 1992).

2.2 Historical Debate

The status of independent relative *whose* has been a subject of linguistic debate. Hankamer & Postal (1973) argued against its existence, presenting the following ungrammatical examples: the integrated relative in (3) and the supplementary relative in (4).

- (3) *My gorilla is over there drinking punch. *The guy [whose you saw banging at the window] is over there watering the rubber tree.*
- (4) **Melvin, [whose is banging at the window], is over there watering the rubber tree.*

Their judgment has been influential, with subsequent literature often assuming the non-existence of this construction. Although the *Cambridge grammar of the English language* identifies (1), showing that genitive relative *whose* is possible in the oblique genitive construction, they agreed that it is otherwise ungrammatical, as in their (5). And, nearly 20 years after that, almost 30 since the squib was published, Cinque (2020) was still referring to the issue as a “residual puzzle”.

- (5) **The police are trying to contact the person [whose it was].*
(Huddleston & Pullum 2002: 472)

Yet, historical examples and sporadic contemporary usage indicate a more complex interaction of factors than previously assumed.

3 Methodology

This study employs a mixed-method approach, constrained by the rarity of the phenomenon and limited resources:

1. Historical analysis: Examination of examples from *the Oxford English Dictionary*, spanning from the 14th to the 20th century.

2. Contemporary usage: Analysis of a small set of examples found in online contexts and corpus data.
3. Theoretical analysis: Application of concepts from syntax, semantics, and information structure theory to understand the constraints on the construction.
4. Cross-linguistic comparison: Brief examination of similar constructions in other languages to provide a broader perspective.

Limitations: Several significant limitations to the methodology are acknowledged:

- Limited dataset: The contemporary examples are few and sourced from informal online contexts.
- Absence of rigorous acceptability judgments: Formal surveys of native speaker intuitions have not been conducted.
- Potential sampling bias: The online examples may not be representative of broader language use.

Given these limitations, the findings should be considered exploratory rather than definitive. The aim is to provide a foundation for future, more comprehensive studies of this phenomenon.

4 Syntactic and Semantic Analysis of Independent Genitives

4.1 Frequency and Distribution

The rarity of independent relative genitive *whose* can be partly understood by examining the broader pattern of genitive pronouns in English. As of July 2024, *the Corpus of Contemporary American English* (COCA; [Davies 2008–2024](#)) includes 250,796,635 words tagged as nouns and 89,143,974 as pronouns. Of the pronouns, 15,780,019 are dependent genitive pronouns (tagged as APPGE), and 192,379 are independent genitives (tagged as PPGE).

These figures reveal several important patterns:

1. Pronouns are about one-sixth as frequent as other nouns (common and proper). This aligns with expectations, as most pronouns require a common or proper noun to establish reference, while the opposite relationship doesn't hold.

2. Genitive pronouns are approximately one-sixth of all pronouns, which roughly matches our priors, given that there are nominative, accusative, and reflexive forms as well.
3. Within the genitives, there's a stark imbalance: dependent genitives are roughly two orders of magnitude more frequent than independent genitives.

Independent *its* is also extremely rare. [Taylor \(2000: 315\)](#) deems it “so rare in fact that one might be inclined to say that the form is prohibited,” as [Hankamer & Postal \(1973\)](#) have suggested with independent relative *whose*. *CGEL* (471) takes a less extreme stance, while acknowledging the limited distribution of independent *its*, citing examples like (6–9).

- (6) *The Guardian seems to respect its readers more than the Sun respects its.*
- (7) * *The Bank is being sued by a rich client of its.*
- (8) *The council appears to be guilty of the illegal sale of houses that were not its to sell in the first place.*
- (9) *Darwin felt that a so-called lower form of life, like an amoeba, could be as adapted to its environment as a human is to its.*

The rarity of independent *its* parallels the rarity of independent relative *whose*, suggesting that the constraints on these constructions may be related to broader patterns in the English genitive system. This frequency distribution calls for explanation. The following factors seem like plausible explanans for the paucity of independent genitives.

4.2 Semantic Properties of Independent Genitives

Independent genitives are pro-forms that are “doubly anaphoric because they are both referential and elliptical: they are anaphoric (i) by reference, to the possessor, and (ii) by ellipsis, to the thing possessed” ([Halliday & Hasan 1976: 55](#)). In the case of *whose* in (1), it presupposes Lucy by reference and it presupposes her friend by ellipsis. Moreover, the antecedent of the elided possessum is a type, not necessarily an identity ([Ariel 2014: 63](#)). For example, if Jane brought her friend, John, and I brought mine, I did not also bring John. I brought a different member of the type FRIEND.

[Ariel \(2014: 63\)](#) suggests that “this special processing procedure is probably responsible for the higher Accessibility requirement imposed on them.” In other words, the double anaphora requirement means that independent

genitives need not one but two salient antecedents, a condition that may not be particularly common in discourse. On top of this, the double anaphora also adds complexity to the processing and use of these constructions, as does the type-level reference for the possessum.

Contrast this with relative *which*, a determinative that, like the pronoun *whose*, comes in dependent and independent types.² Both *whose* and *which* function as determiners. Independent *which*, though, is quite frequent.

What might explain this difference in frequencies among these two independent relative words? Like *whose*, *which* is also doubly anaphoric, (i) referentially to some antecedent outside of the relative-clause but elliptically to a gap in the relative clause. And these two antecedents often have an identity relationship, rather than the possessor to possessum-type relationship of *whose*. This means there are fewer contextual constraints and possibly a lower processing load.

4.3 Information Structure and Accessibility

Three information-structure and accessibility hierarchies collectively indicate an unusually high burden on independent relative *whose*.

First, Gundel, Hedberg & Zacharski (1993) propose the following givenness hierarchy: in focus > activated > familiar > uniquely identifiable > referential > type identifiable. This hierarchy has proven robust and influential for understanding the relationship between cognitive status and referential forms across languages, receiving empirical support (e.g., Warren & Gibson 2002). For independent *whose*, regardless of the possessor’s position on this hierarchy, the possessum typically occupies the lowest rank (type identifiable).

Second, Givón (2001: 195) presents a hierarchy of topicality for semantic roles: Agent > Dative/Benefactive > Patient > Locative > Others. In constructions with independent relative *whose*, both the possessor and possessum roles often fall under the “Others” category, placing them at the lower end of the topicality scale.

Third, the relationship between animacy and topicality further constrains the distribution of independent relative *whose*. Animate entities, especially humans, tend to be more salient and topical in discourse due to their agency. While possessors are often animate – persons even – possessums are frequently inanimate objects. This animacy disparity creates an additional challenge, as independent relative *whose* requires both possessor and posses-

²I think these are both determinatives, but *CGEL* analyzes the dependent type as a determinative and the independent as a pronoun.

sum to maintain high levels of accessibility simultaneously.

Collectively, these hierarchies suggest that the topicality conditions for using independent relative *whose* are exceptionally demanding. The construction requires a possessor of sufficient givenness, semantic roles that often fall low on the topicality scale, and the simultaneous high accessibility of both an animate possessor and a potentially inanimate possessum. These combined factors contribute to the rarity and complexity of independent relative *whose* in discourse.

An additional challenge for independent relative *whose* stems from the inherent function of relative clauses. Relative constructions typically provide specifying or supplementary information about the referent of an NP in which they function as modifiers. In the case of relative *whose*, though, this information would be about the possessum. Consider (1). It's not Lucy, the possessor, who had told of the accident but a friend of Lucy's. That leaves little opportunity for the possessum to be topical enough to be elided. Supplementary relatives may be about the whole situation rather than about a particular entity, but relative *whose* necessarily has the same target, regardless of whether its integrated or supplementary. But the supplementary nature of the information potentially makes it even more possible to mention a non-topical possessum.

Fused relatives like (2), seem no more likely than integrated or supplementary relatives to have a highly accessible possessum, which would facilitate the elision of the head noun.

4.4 Comparison with Interrogative *whose*

The relative acceptability of independent interrogative *whose* provides an instructive contrast to the marked status of its relative counterpart. Consider the differences in (10):

- | | | | |
|------|----|-----------------------------------|-----------------------------|
| (10) | a. | * <i>the person whose you met</i> | [Relative] |
| | b. | <i>Whose is this?</i> | [Interrogative main clause] |
| | c. | <i>I know [whose it is].</i> | [Interrogative subordinate] |
| | d. | <i>It's whose?</i> | [Echo question] |

Independent interrogative *whose* is more readily accepted for the following reasons:

1. Referentiality: Unlike relative *whose* in (10a), interrogative *whose* in (10b)–(10c) does not refer to an antecedent. Instead, it queries about an unknown possessor while typically presupposing a known possessum. This reduces both the accessibility requirements and potentially the

cognitive load, as the processor only needs to track one referent (the possessum) rather than two.

2. Information structure:

- (a) Givenness: Interrogative *whose* typically carries high informational prominence due to its question-word status. In Gundel et al.’s givenness hierarchy, the queried possessor often corresponds to the “activated” or “in focus” levels, while the possessum is typically “identifiable” or “referential”. In echo questions like (10d), this prominence is apparent in the focal stress placed on *whose*.
 - (b) Topicality: In interrogative constructions with *whose*, such as (10b) and (10c), the possessum often occupies a subject position or is otherwise topical in the discourse. This aligns with Givón’s topicality hierarchy, where subjects and topics are highly ranked. The implied possessor also gains topicality by being the focus of the query. In contrast, conditions are rarely so conducive for relative *whose* constructions, resulting in ungrammatical results like (10a).
3. Clause type and position: Interrogative *whose* can appear in main clauses, as in (10b), either as the subject or at least in a fronted position, which reinforces its prominence and accessibility. In contrast, relative *whose* in (10a) is restricted to subordinate clauses, potentially reducing its overall prominence in the discourse. Even in subordinate interrogative clauses like (10c), *whose* maintains a prominent position within its clause.

These factors collectively contribute to the greater acceptability and frequency of independent interrogative *whose* across various contexts, as illustrated in (10b)-(10c), highlighting by contrast the unique challenges posed by independent relative *whose* in constructions like (10a).

5 Data Analysis

5.1 Historical Examples

The *Oxford English Dictionary* (*OED*)’s entry for *whose* ([OED Online 2024a](#)) provides several examples of independent relative *whose* from various periods. I have expanded these to include more foregoing context. Those in (11–15) are integrated relatives.

- (11) *Whan þe kyng wil þat iustice be don ... he wile þat hit be don after þe wille of him* [hos þe werkes bez]. [1325]
- (12) *Syk lay the housebond man* [whos þat þe place is]. [c. 1410]
- (13) *When she was brought forth, she sent to her father in law, saying, By the man, [whose these are], am I with child: and she said, Discern, I pray thee, whose are these, the signet, and bracelets, and staff.*³ [1611]
- (14) *Again, debts due to the man [whose the goods were], or debts he himself owed, neither the bonorum possessor nor the bonorum emptor in strict law owes or has owed him.* [1885]
- (15) *Everything depends on the person [whose this administration is].* [2018]

Those in (16–18) are supplementary.

- (16) *For I could wish that myself were accursed from Christ for my brethren, my kinsmen according to the flesh: who are Israelites; to whom pertaineth the adoption, and the glory, and the covenants, and the giving of the law, and the service of God, and the promises; [whose are the fathers], and of whom as concerning the flesh Christ came, who is over all, God blessed for ever.* (i.e., ‘whose forefathers are the patriarchs Abraham, Isaac, and Jacob’) [1526]
- (17) *The most generous patron ... continues to be our ... Pittsburg and Allegheny auxiliary, [whose also is the largest contribution to the rent of our Association’s new office].* [1904]
- (18) *The daughter of baleful Atlas [whose are the pillars that prop the lofty sky].* [1932]

The examples in (19–21) are from the *English Wiktionary* entry for *whose* ([Wiktionary contributors 2024](#)), (20 & 21) with *whose* as the object in a relative phrase headed by a preposition.

- (19) *For there stood by me this night the angel of God, [whose I am], and whom I serve,* [1611]
- (20) *if he start game on one man’s lands, and pursue it to those of another, and kill it there, it is neither the property of the man on whose lands it is started, nor of him [on whose it is killed], but belongs to the killer.* [1833]

³The second *whose* is interrogative.

- (21) *the reference to Mrs. Holmes, of whose books it is said, “The secret of their long popularity has never been divulged by their readers,” and Mrs. Harris, [of whose it is said, “To a lively mind they should be conducive of profound sleep,”]* [1895]

The examples (22 & 23) from a Google Books search include *it* clefts.

- (22) *How much better for the parties rather to cease from their logic and examine in a friendly way their logical machinery, if perchance they may find [whose it is that is so out of joint], that in the moral calculus it refuses to give the result that two and two make four!* [Sears & Association 1867]
- (23) *Hear attentively, and consider the consequences of it; weigh both what and [whose it is that is spoken].* [1853]

The *OED* also has independent relative *whosever* in fused-relative NP in the free-choice construction (24).

- (24) *[Whosever the footprint may be], the story is gospel among Mahometans.* [1865 *OED Online* 2024b]

These examples suggest that the construction has existed in English for centuries. However, caution is needed in their interpretation:

- The examples span a long period and may reflect different stages of language evolution.
- Older examples may represent linguistic norms no longer active in contemporary English.
- The perceived grammaticality of these constructions may have varied over time.

5.2 Contemporary Usage

Various searches of *COCA* (Davies 2008–2024) revealed one clear instance of independent relative *whose*. This absence in a large, diverse corpus is significant and supports the view that the construction is extremely rare in contemporary standard English. The example in (25) combines two constructions: the independent genitive construction and elliptical stranding in the comparative clause.

- (25) *Norway, whose standard of living is the envy of the world, has thicker kids than Singapore, whose isn’t.* [COCA]

I was able to find a number of examples, including (26-33) in informal online contexts.

- (26) *In California you usually include a copy of the check with the offer. Earnest money deposit (EMD) can be anywhere from 1/2%-3% of the sales price. Mine was 3%, I just helped a person [whose was 2%].*
- (27) *I have met a person whose SSN was only 10 away from mine (yes only the second to last digit was one higher than mine) and he was born in a different state and was at least 7-10 years older than I was. And I met another person [whose was kinda close to mine] but again we had nothing in common pertaining to our birthday or location of birth/SSN registries.*
- (28) *Mine is also submitted on June 30 and no updates yet, I know a person [whose was filed on June 30 as well in Regular mode] and he got approval on 8/16.*
- (29) *Debating whether to swap it out for the existing one [i.e., keyboard] or just use it for programming. The control panel isn't as hard to get to as the person [whose was installed in the top of a closet].*
- (30) *Head shaved? Mine wasn't but the guy [whose was] had to give a pubic sample.*
- (31) *In my opinion, my 50%/50% bud/trim mix came in third place. One guy, [whose was the best in my opinion], he treated his trim exactly like he did his buds.*
- (32) *When I entered in 1977, I actually had the longest ash, but mine was bent. I came second to a woman [whose was straight].*
- (33) *My trigger is medical stuff like needles, which mostly people are sympathetic to. But I did know another woman [whose was set off by morning urination].*
- (34) *It is a reminder to leave the problem with the person [whose it is], who has caused it, while I focus on my own life.*
- (35) *I would love to say this was my creation, but it is NOT. And so far, I have been unable to locate the person [whose it is].*
- (36) *The decision, [whosever it was], to deliver the newly-won premiership cup ...*
- (37) *We've got to get away from this constant effort to destroy a presidency, [whosever it is].*
- (38) *Whose leg is it? It's not mine. Is it mine? I bet [whoever's it is] probably misses it.*

- (39) *Oh, boy, there's a good deal of blood in this stool. [Whoever's] it is should see a doctor.*

Various dictionaries have independent relative *whosever* in fused-relative NP in the free-choice construction (40 & 41).

- (40) [*whosever these gloves are*], *I wish he would come and claim them* [MW]

- (41) [*Whosever property it is*], *it will be seized.* [Wiktionary]

These examples suggest that the construction may still be in use. However, we must consider several caveats:

- These examples are from informal, unedited contexts and may not represent standard usage.
- They may be instances of performance errors rather than grammatical constructions.
- The acceptability of these examples to a broader population of English speakers is unknown.
- The search strategy (e.g., *mine* + ‘person’ *whose was*) used to find them may give the improper appearance of structural similarity.

6 Analysis

6.1 The oblique genitive construction

The oblique genitive construction is, perhaps the easiest case to deal with. In (1: *I was going to visit Lucy, [a friend of whose had told us of the accident].*), the possessor, Lucy, is topical, being the head of the NP that the relative clause is about. But the possessum, a friend, is also highly salient, being part of the relative phrase. In this case the relative phrase is the subject, but it could also be a non-subject fronted element, as in *a friend of whose we had recently met*.

The ungrammaticality of (7: **The Bank is being sued by a rich client of its.*) may not be because *its* is an independent genitive, but more because of the non-personal nature of the whole *it* paradigm. Note that independent genitive *theirs* would be much better but accusative *it* would not. No doubt there's more to say about this, but since *its* is not the focus, I'll move on.

6.2 Integrated relatives

The integrated relative examples from the *OED* and contemporary usage share several characteristics that contribute to their acceptability:

- High topicality of both possessor and possessum
- A context that either promotes the accessibility of the type-antecedent for the possessum or removes this requirement.

I'll examine two examples in detail. In (13: ... *By the man, [whose these are], am I with child*), the possessor (the man) is highly available by dint of having just been mentioned; this is not unusual. The possessum, though, (the signet, bracelets, and staff) are only highly available because they are physically present at the time of writing and are, presumably, to be presented along with the letter.

Moreover, this is a case in which the antecedent of the ellipsis is an identity (the specific items), not just a type. This relieves a number of the situational requirements that limit use of independent relative *whose*.

In (28: *Mine is also submitted on June 30 and no updates yet, I know a person [whose was filed on June 30 as well in Regular mode] ...*), a contemporary example, the context is a comparison of application statuses. Both the possessor (the person) and the possessum (the application) are highly topical in the discourse. The first person is always topical. The use of *mine* in an implied comparison elevates the type APPLICATION in the accessibility hierarchy, licensing independent relative *whose*.

The acceptability of these constructions appears to rely heavily on the discourse context. They require highly accessible antecedents of both possessor and possessum, and in the case of the possessum, a context that promotes a type antecedent or allows for an identity antecedent.

6.3 Supplementary relatives

The supplementary relative examples (16–18) and (25) share many features with the integrated relatives, suggesting that the distinction between these types does not significantly impact the licensing of independent relative *whose*. Again, the key factors appear to be:

- High topicality of both possessor and possessum
- A context that either promotes the accessibility of the type-antecedent for the possessum or removes this requirement.

I'll examine two more examples in detail. In (16), the possessor 'my kinsmen, the Israelites' is highly accessible. It's the topic of an extended description with a series of *who/whose/whom* relatives in somewhat parallel structure.

The possessum 'the fathers' may seem inaccessible to a modern audience not steeped in biblical study. Such readers might be unfamiliar with the reference to the patriarchs Abraham, Isaac, and Jacob. However, it represents given information in the context of discussing the Israelites' heritage. For the original audience, the term *the fathers* would have been immediately recognizable and laden with significance.

This example also illustrates how the context can remove the need for a type-antecedent. Here, the elliptical antecedent of *whose* refers to specific individuals (the patriarchs), functioning as an identity-antecedent. This specificity, combined with the high topicality of both elements, facilitate the use of independent relative *whose*.

In (25: *Norway, whose standard of living is the envy of the world, has thicker kids than Singapore, [whose isn't].*), both Norway and Singapore are highly topical, being the subjects of comparison. The possessum 'standard of living' is first introduced with a dependent relative *whose*, which helps establish it as a key point of comparison. This perception is heightened by the parallel structure in the second clause, where the independent relative *whose* echoes the first, albeit with ellipsis.

Crucially, the antecedent of the independent relative *whose* is the type STANDARD OF LIVING, certainly not the standard of living of Norway. The contrastive context of the comparison promotes the accessibility of this type-antecedent. By the time we reach the second clause, the type STANDARD OF LIVING is highly accessible, allowing for its elision in the independent relative *whose* construction.

This example is particularly noteworthy due to its use of auxiliary ellipsis along with the independent genitive.

These examples, along with the integrated relatives discussed earlier, demonstrate that the licensing of independent relative *whose* depends more on pragmatic and information-structural factors than on the integrated/supplementary distinction. The key conditions appear to be:

1. High topicality and accessibility of both possessor and possessum
2. A context that either:
 - Promotes the accessibility of a type-antecedent for the possessum,
 - or

- Provides an identity-antecedent, removing the need for a type-antecedent
- Efficient information packaging, often facilitated by parallel or contrastive structures

The rarity of this construction in contemporary English stems from the infrequency with which all these conditions are simultaneously met, rather than from any inherent ungrammaticality. This analysis provides a unified account for both integrated and supplementary relatives, explaining why independent relative *whose*, while rare, persists in certain highly constrained contexts.

7 Cross-linguistic comparisons

To further explore the pragmatic and information-structural constraints on independent relative *whose* constructions, it is valuable to examine both grammatical and ungrammatical structures in other languages. This cross-linguistic comparison can provide additional evidence for the hypotheses developed in the preceding analysis.

Consider the following English examples as our base:

- (42) *Mine was working, but I know someone whose wasn't.*
 (43) * *The person whose you forgot is my cousin.*
 (44) *The person whose name you forgot is my cousin.*

The first example demonstrates the grammatical use of independent relative *whose* in a contrastive context. The second example shows the ungrammatical use of independent *whose* in a non-contrastive context. The third example illustrates the grammatical use of dependent *whose*, which is acceptable regardless of pragmatic context.

7.1 German

In German, we see a similar pattern of grammaticality:

- (45) *Meins funktionierte, aber ich kenne jemanden, [dessen nicht*
 mine worked but I know someone whose not
funktionierte].
 worked
 ‘Mine was working, but I know someone whose wasn’t.’

- (46) **Die Person, dessen du vergessen hast, ist mein Cousin.*
the person whose you forgotten have is my cousin
‘The person whose you forgot is my cousin.’
- (47) *Die Person, deren Namen du vergessen hast, ist mein Cousin.*
the person whose name you forgotten have is my cousin
‘The person whose name you forgot is my cousin.’

Here, the independent relative pronoun *dessen* ‘whose’ parallels the English construction. It’s grammatical in the contrastive context but ungrammatical in a context that doesn’t have the pragmatic factors that make its use felicitous, just as in English. The dependent use of *deren*, as in the third example, is grammatical regardless of pragmatic context.

7.2 Spanish

Spanish shows a pattern similar to English and German:

- (48) *El mío funcionaba, pero conozco a alguien [cuyo no*
the mine worked but know.1SG to someone whose not
funcionaba].
worked
‘Mine was working, but I know someone whose wasn’t.’
- (49) **La persona cuyo olvidaste es mi primo.*
the person whose forgot.2SG is my cousin
‘The person whose you forgot is my cousin.’
- (50) *La persona cuyo nombre olvidaste es mi primo.*
the person whose name forgot.2SG is my cousin
‘The person whose name you forgot is my cousin.’

Here, *cuyo* ‘whose’ can be used without a head noun in the contrastive context, but this is ungrammatical in the non-contrastive context. The dependent use of *cuyo*, as in the third example, is grammatical regardless of pragmatic context.

7.3 French

French shows a pattern that is structurally different from English and German, but still maintains a distinction between grammatical and ungrammatical uses:

- (51) *Le mien fonctionnait, mais je connais quelqu'un [dont le sien
the mine worked but I know someone whose the his/hers
ne fonctionnait pas].*
NEG worked not
'Mine was working, but I know someone whose wasn't.'
- (52) **La personne [dont tu as oublié] est mon cousin.*
the person whose you have forgotten is my cousin
'The person whose you forgot is my cousin.'
- (53) *La personne [dont tu as oublié le nom] est mon cousin.*
the person whose you have forgotten the name is my cousin
'The person whose name you forgot is my cousin.'

In the contrastive context (51), French uses *dont* followed by a resumptive possessive pronoun *le sien* 'his/hers'. This structure differs from the other languages examined, which use a single relative pronoun without a resumptive element.

The ungrammatical example (52) shows that *dont* cannot be used independently in a non-contrastive context, similar to the constraints observed in the other languages, despite the grammaticality of the third example with the dependent form and the head noun.

7.4 Persian

Persian (Farsi) presents an interesting case, as it uses a different strategy for expressing possession in relative clauses:

- (54) *Māl-e man kār mi-kard, ammā kas-i-rā*
possession-EZ I work IPFV-did but person-INDEF-ACC
mi-šenāsam [ke māl-aš kār ne-mi-kard].
IPFV-know.1SG SBR possession-3SG work NEG-IPFV-did
'Mine was working, but I know someone whose wasn't.'
- (55) **Šaxs-i [ke māl-aš-rā farāmuš kard-i]*
person-INDEF [SBR possession-3SG-ACC forget do.PST-2SG]
pesar-amm-e man ast.
cousin-EZ I COP
'The person whose (possession) you forgot is my cousin.'

- (56) *Šaxs-i* [ke *esm-aš-rā* *farāmuš kard-i*]
 person-INDEF [SBR name-3SG-ACC forget do.PST-2SG]
pesar-amm-e man ast.
 cousin-EZ I COP
 ‘The person whose name you forgot is my cousin.’

In Persian, there is no direct equivalent to the independent relative *whose*. Instead, relative clauses are introduced by the subordinator *ke* ‘that’, and possession is expressed using a resumptive possessive suffix on the noun.

In the grammatical example, *māl-aš* (literally ‘his/her possession’) is used in a contrastive context, paralleling the independent *whose* in English. The subordinator *ke* marks the relative clause as subordinate but does not itself express possession. The ungrammatical example shows that this structure with *māl-aš* is not acceptable in non-contrastive contexts, similar to the pattern in other languages. The third example demonstrates the typical way of expressing possession in Persian relative clauses, with the possessed noun (*esm* ‘name’) followed by the possessive suffix *-aš* ‘his/her’.

This pattern in Persian, while structurally different from that of the foregoing Indo-European languages, still shows a pragmatic constraint on the use of possessive constructions in relative clauses. The contrast between the first and second examples suggests that, even in languages without an independent relative genitive pronoun, similar pragmatic factors influence the acceptability of certain possessive constructions in relative clauses.

7.5 Japanese

Japanese, a language with head-final relative clauses and no relative pronouns, presents an interesting case:

- (57) *Watashi-no-wa ugoi-te-ita* *ga*, [*ugoi-te-ina-katta*]
 I-GEN-TOP working-PROG-PAST but [working-PROG-NEG-PAST]
hito-mo shitte-iru.
 person-also know-PROG
 ‘Mine was working, but I also know someone whose wasn’t.’
- (58) [*Anata-ga wasureta*] *hito-wa* *watashi-no itoko desu.*
 [you-NOM forgot] person-TOP I-GEN cousin COP
 ‘The person who you forgot is my cousin.’
- (59) [*Anata-ga namae-o wasureta*] *hito-wa* *watashi-no itoko desu.*
 [you-NOM name-ACC forgot] person-TOP I-GEN cousin COP
 ‘The person whose name you forgot is my cousin.’

In Japanese, relative clauses precede the noun they modify, and there are no relative pronouns. The first example demonstrates how Japanese can express a similar meaning to the English independent *whose* construction in a contrastive context.

The second example is grammatically correct but does not convey the intended meaning of ‘whose you forgot’. Instead, it means ‘The person who you forgot is my cousin’. This highlights a crucial point: in Japanese, there may not be a direct way to express the independent ‘whose’ construction as in English.

The third example illustrates the typical way of expressing possession in Japanese relative clauses, with the possessed noun (*namae* ‘name’) explicitly stated.

This Japanese data reveals an important cross-linguistic insight: while some languages may lack a direct equivalent to the independent *whose* construction, they can still express similar meanings through different grammatical strategies. The constraints we observe in other languages regarding independent relative genitives may manifest in Japanese as a lack of a direct structural equivalent, rather than as constraints on an existing structure.

8 Discussion and Conclusion

This study demonstrates that independent relative genitive *whose* exists in English, contrary to [Hankamer & Postal \(1973\)](#)’s claim, albeit in extremely limited contexts. Its distribution is governed primarily by information structure and pragmatic factors, rather than purely syntactic constraints. Three key conditions license the use of independent relative *whose*:

1. High topicality and accessibility of both the possessor and possessum
2. A context that either promotes the accessibility of a type-antecedent for the possessum or provides an identity-antecedent
3. Efficient information packaging, often facilitated by parallel or contrastive structures

The extreme rarity of this construction stems from the infrequency with which these conditions converge in natural discourse. This explains why independent relative *whose* persists in certain highly constrained contexts while being virtually absent in others.

Cross-linguistic comparisons lend support to this analysis. German and Spanish exhibit similar patterns of grammaticality, with independent relative genitive constructions acceptable in contrastive contexts but not in

non-contrastive ones. French, despite structural differences, maintains a distinction between grammatical and ungrammatical uses that aligns with the pragmatic constraints observed in English. Even languages like Persian and Japanese, which lack direct equivalents to independent relative *whose*, demonstrate similar pragmatic constraints on possessive constructions in relative clauses.

These findings have several important implications for linguistic theory:

- The apparent gap in the English relative pronoun paradigm is not a categorical syntactic impossibility, but rather the result of a highly constrained pragmatic environment.
- The interface between syntax and pragmatics plays a crucial role in determining the distribution and acceptability of certain grammatical constructions.
- Cross-linguistic patterns suggest that the pragmatic constraints observed for independent relative genitives may be more universal than the specific syntactic realizations.
- The analysis highlights the importance of considering rare constructions and their pragmatic contexts in developing comprehensive linguistic theories.

This study contributes to our understanding of the English relative pronoun system and underscores the value of examining rare constructions and their cross-linguistic counterparts in refining linguistic theories. It serves as an example of how apparent gaps in grammatical paradigms may sometimes be more accurately explained by considering the non-syntactic factors.

In conclusion, the case of independent relative genitive *whose* opens up new avenues for understanding and analyzing other rare or seemingly impossible constructions across languages, highlighting the importance of considering pragmatic factors in syntactic analysis.

Abbreviations

| | |
|-------|------------------------|
| 1SG | First person singular |
| 2SG | Second person singular |
| 3SG | Third person singular |
| ACC | Accusative |
| COP | Copula |
| EZ | Ezafe |
| GEN | Genitive |
| INDEF | Indefinite |
| IPFV | Imperfective |
| NEG | Negation |
| NOM | Nominative |
| PAST | Past tense |
| PROG | Progressive |
| SBR | Subordinator |
| TOP | Topic marker |

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