# Prepositional object gaps in British English

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In British English (BrE), a subset of pronominal objects of prepositions in HAVE/WITH possessives may be optionally realised as *prepositional object gaps* (POGs). In this short paper, we introduce three core properties of this previously unreported phenomenon, and then outline a preliminary syntactic analysis to straightforwardly capture them. These properties are: POGs are only observed in BrE, POGs are only observed in HAVE/WITH possessives, and POGs are only observed in structurally simplex complements of possessive *have* and *with*. We show that these properties are straightforwardly captured by an analysis that treats POGs as arising from A-movement of the possessor. We claim that the locus of variation between dialects that permit POGs and dialects that do not is the feature specification of a single syntactic head, which either induces or precludes A-movement. This proposal accords with current Minimalist approaches to microparametric variation, in which all variation stems from the lexicon.

**Keywords:** A-movement, English dialects, have/with possessives, microparametric variation, PP structure, prepositional objects

## 1. Introduction

In British English (BrE), a subset of pronominal objects of prepositions in HAVE/WITH possessives (*it* in 1a) may be optionally realised as *prepositional object gaps* (POGs, see 1b).

(1)  a.  This film has monsters in it. / The film with monsters in it was scary.
    b.  This film has monsters in _. / The film with monsters in _ was scary.
    c.  The table has stools beneath it. / The table with stools beneath it is dirty.
    d.  The table has stools beneath _. / The table with stools beneath _ is dirty.
    e.  Rivers have bridges across them. / Rivers with bridges across them are pretty.
    f.  Rivers have bridges across _. / Rivers with bridges across _ are pretty.

In this short paper, we introduce three core properties of this previously unreported phenomenon, and then outline a preliminary syntactic analysis to straightforwardly capture them. These properties are: (i) POGs are only observed in BrE, (ii) POGs are only observed in HAVE/WITH possessives (§2), and (iii) POGs are only observed in structurally simplex complements of possessive *have* and *with* (§3). As we show in §4, these properties are straightforwardly captured by an analysis that treats POGs as arising from A-movement of the possessor (2).

(2)  [This river]$_1$ has a bridge across $t_1$.

While a number of syntactic factors are involved in licensing POGs, we claim in §4 that the locus of variation between dialects that permit POGs (BrE) and dialects that do not (all other Englishes) is the feature specification of a single syntactic head, which either induces or precludes the A-movement exemplified in (2). This proposal accords with current Minimalist approaches to microparametric variation, in which all variation stems from the lexicon (Kayne 2000, Barbiers 2009, Corver & van Koppen 2011, Zanuttini & Horn 2014). In §5, we address some potential challenges to the analysis we propose, and §6 concludes the paper.

## 2.  HAVE/WITH possessives

The observation from §1 that POGs always replace pronominal objects of prepositions (hereafter *P-objects*) may give the initial impression that POGs are licensed whenever P-objects are recoverable from the discourse, i.e. they are derived by topic-drop. This cannot be correct, however: the POGs in (3) are ill-formed, despite being fully discourse-recoverable.

(3)  a.   Don't watch [that film]$_i$ — there's a monster in *(it)!
     b.   I won't deliver to [that house]$_i$ because of the graveyard behind *(it$_i$).
     c.   I won't watch [that film]$_i$ because a monster is in *(it$_i$).
     d.   Chernobyl is [a city]$_i$ without (any) people in *(it$_i$).
     e.   I expect [the car]$_i$'s number plate to be in *(it$_i$).
     f.   [A church]$_i$'s graveyard can usually be found behind *(it$_i$).

As mentioned in §1, POGs are restricted to HAVE/WITH possessives such as (1b) and (4).

(4)  a.   I expect there to be [a car]$_i$ with a number plate on __$_i$.
     b.   [A church]$_i$ can usually be found to have a graveyard behind __$_i$.

This distributional restriction suggests that the syntax of HAVE/WITH possessives is instrumental in deriving POGs, a matter we incorporate into our analysis in §4.

### 3.   The prepositional domain in HAVE/WITH possessives

As HAVE/WITH possessives play a crucial role in the syntax of POGs, we describe their basic properties in this section, with particular attention on the variety of PPs that can(not) occur in such possessive structures.

Recent literature has proposed that, in two important respects, the prepositional domain is analogous to the verbal domain (Svenonius 2010, Levinson 2011, and Myler 2014). First, prepositions are thought to be equivalent to lexical verbs insofar as neither can assign structural case directly. Second, the existence of a 'little' $p$ head has been postulated, which, like $v$, introduces external arguments and assigns (oblique) case, which is treated as a structural case (cf. Den Dikken 2010). On this view, the building-blocks of the PP domain are intransitive (5a) and transitive (5b) $p$Ps, which are structurally analogous to intransitive and transitive $v$Ps (6).

(5)   a.   $[_{pP} p [_{PP} P YP]]]$
      b.   $[_{pP} XP [_{pP} p [_{PP} P YP]]]$

(6)   a.   $[_{vP} v [_{VP} V YP]]]$
      b.   $[_{vP} XP [_{vP} v [_{VP} V YP]]]$

The PP domain has also been split across another dimension, into spatial vs. path $p$Ps (*SpatialPs* and *PathPs* hereafter; cf. Den Dikken 2010, Koopman 2010, Svenonius 2010). SpatialPs and PathPs are sketched in (7) and (8) below:

(7)   a.   $[_{SpatialP}$ on the floor]                      (*intransitive SpatialP*)
      b.   $[_{SpatialP}$ milk on the floor]                   (*transitive SpatialP*)

(8)   a.   $[_{PathP}$ to Amarillo]                          (*intransitive PathP*)
      b.   $[_{PathP}$ the way to Amarillo]                    (*transitive PathP*)

Another building-block of the PP domain is genitive-*of* phrases (*GenPs*), exemplified in (9) (these are called *Axial Part* projections in Svenonius 2010).

(9)   $[_{GenP}$ side of the building]

As the examples in (10) show, possessive *have* and *with* may select for transitive SpatialPs but not transitive PathPs or GenPs. Rather, PathPs and GenPs may occur in HAVE/WITH possessives only when they are contained within larger complements of *have* and *with*, as the examples in (11) demonstrate.

(10)   a.   This house [has $[_{SpatialP}$ termites in it]].
       b.   *This house [has $[_{PathP}$ a path from it]].
       c.   *The house [with $[_{GenP}$ (the) front of it]] is falling down.

(11)  a.  This bath [has [$_{vP}$ water flowing [$_{PathP}$ from it]]].
     b.  The spire [with [$_{SpatialP}$ a weathervane on [$_{GenP}$ top of it]]] needs repairing.

With these observations about HAVE/WITH possessives in place, we can now return to POGs. Our observations from the data we have gathered from BrE consultants so far (see (14)–(16) below) suggest that the generalisation in (12) captures how the structure of the prepositional domain constrains the licensing of POGs (see §5 for possible amendments):

(12)  A P-object α can be realised as a POG only if α is *immediately contained* within the maximal projection of βP, where
     a.  βP is the complement of possessive *have* or *with*;
     b.  α is *immediately contained* in βP if no maximal projection γP intervenes between α and a projection of β.

To put (12) differently, our observations so far suggest that P-objects (αs) can be realised as POGs in HAVE/WITH possessives that match the simple schema in (13a) but not the more complex schema in (13b). Because only SpatialP may instantiate the schema in (13a) (as 10 has already shown), we arrive at the generalisation that only spatial prepositions license POGs.[1]

(13)  a.  [… [*have/with* [$_{βP}$ α]]]
     b.  [… [*have/with* [$_{βP}$ … [$_{γP}$ … α]]]]

Evidence for the generalisation in (12) is provided below. First, one observes that P-objects may be realised as POGs in all SpatialPs that instantiate the schema in (13a), as (14) and (15) show (the question marks in 15 reflect some speaker variation among BrE speakers).

(14)  a.  This river [has [$_{SpatialP}$ a bridge across (it)]].
     b.  Should we sit at that table [with [$_{SpatialP}$ the stools beneath (it)]]?
     c.  The notebook of Dali's [with [$_{SpatialP}$ doodles on (it)]] should sell for millions.
     d.  Mine's the mug [with [$_{SpatialP}$ the coaster under (it)]].

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**1.** Further work needs to be done to fully specify the conditions governing the distribution of POGs across different varieties of BrE; however, we can report that POGs are attested in speakers from London, and the judgments we report here reflect those of four consultants from that area. Four speakers with whom we consulted from elsewhere in England (Derby, Cambridge, and Somerset) agree with these judgements, as does this paper's first author (also from Derby).

(15) a. This street [has [$_{\text{SpatialP}}$ an adequate number of streetlights along $^?$(it)]].
     b. Stop when you see two houses [with [$_{\text{SpatialP}}$ an alleyway between $^?$(them)]].
     c. This farmhouse [has [$_{\text{SpatialP}}$ a cornfield past $^?$(it)]].
     d. The firemen attempted to climb a tree [with [$_{\text{SpatialP}}$ a cat up $^{??}$(it)]].

Second, one observes that POGs can never arise in P-object position in PathPs (16a–b) or GenPs (16c). This is because such phrases are always contained within larger complements of *have* or *with*, which conform to the schema in (13b).

(16) a. I got an email [with [$_{vP}$ a photo attached [$_{\text{PathP}}$ to *(it)]]].
     b. This barrel [has [$_{vP}$ radiation leaking [$_{\text{PathP}}$ from *(it)]]].
     c. I drank at the pub [with [$_{\text{SpatialP}}$ the most people in [$_{\text{GenP}}$ side of *(it)]]].

The generalisation in (12) entails that a prepositional phrase's structural position, rather than its semantic function, determines whether a POG can be licensed within it. Additional evidence for this comes from examples like (17), in which the structural position of the deeply-embedded SpatialP (i.e. not the complement of *has*) is responsible for the POG's unacceptability, rather than the preposition *on* itself (which licenses POGs in more simplex structures, as 14c has shown.)

(17) This train [has [$_{\text{SpatialP}}$ a secret compartment in [$_{\text{SpatialP}}$ a third-class carriage on *(it)]]].

To summarise: the observation that POGs may only emerge in structurally simplex complements of *have* or *with* suggests that the mechanism that licenses POGs is sensitive to locality. This is incorporated into the analysis of POGs in the following section.

## 4. POGs are created by A-movement

As discussed in §2, POGs only arise in P-object position in HAVE/WITH possessives such as (18), suggesting that the syntax of such possessives is instrumental in licensing POGs.

(18) a. This film **has** monsters in it.
     b. the film **with** monsters in it

Because POGs are licensed in both HAVE and WITH possessives, a parsimonious analysis would treat HAVE/WITH possessives uniformly. We suggest that both HAVE and WITH possessives involve a unique functional head that licenses the complements of *with* and *have* in (18). In particular, we propose that this functional head is a non-spatial preposition that expresses a generic possessive interpretation

(hereafter '$P_\pi$'). In HAVE possessives like (19a), the PP that $P_\pi$ heads is selected by transitive $v$ (cf. Myler 2014). In such constructions, $v$ is realised as *have* in English, while $P_\pi$ must remain null (19b) (cf. Levinson 2011).

(19)  a.  This man has a car.
      b.  $[_{TP}$ [this man]$_1$ $[_{vP}$ $t_1$ $[_{vP}$ has $[_{PP}$ $P_\pi$ a car]]].

In WITH possessives like (20a), the PP that $P_\pi$ heads is selected by a transitive $p$, which is morphologically realised as *with* (Levinson 2011). This transitive $p$ is then nominalised (which we represent simply as '$n$P' in 20b).

(20)  a.  the man with a car
      b.  $[_{nP}$ $[_{pP}$ the man $[_{pP}$ with $[_{PP}$ $P_\pi$ a car]]]]

Having presented a blueprint for HAVE/WITH possessives that provides a suitable foundation for a parsimonious analysis of POGs, we now outline the analysis itself.

   In accordance with current approaches to microvariation, we propose that $P_\pi$ is the locus of variation distinguishing those dialects of English that license POGs (BrE) from those that do not (all other Englishes). More specifically, we claim that speakers of BrE have two lexical entries for $P_\pi$: one which selects a case-assigning $p$P complement (i.e. a case domain, CD) and one that selects a non-case-assigning $p$P complement (i.e. a non-case domain, NCD).[2] However, speakers of all other dialects of English only have the variant of $P_\pi$ that selects a case-assigning $p$P complement.

(21)  BrE: $P_{\pi[CD]}$, $P_{\pi[NCD]}$
      All other Englishes: $P_{\pi[CD]}$

Let us now demonstrate how case-assignment works in HAVE possessives that display $P_{\pi[CD]}$,[3] which is the functional head that is present in all dialects of English. In simple cases like (22a), $P_{\pi[CD]}$ selects a SpatialP whose head is specified to assign case. As such, *it* in (22a) is assigned case in-situ via AGREE (Chomsky 2001) with $p_{[\varphi]}$ (see 22b).

(22)  a.  This box has ribbons in it.
      b.  This box has $[_{PP}$ $P_{\pi[CD]}$ $[_{SpatialP}$ ribbons $[_{p[\varphi]}$ in it$_{[\varphi]}]]]$.

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**2.** Note that our claim that $P_\pi$ selects for a $p$P small clause runs counter to Kayne's (1985) proposal that prepositions cannot select small clauses. If one wished to maintain Kayne's proposal, one might pursue the possibility that *with* is a 'prepositional determiner' of category D/P (Kayne 1993). We leave this aside.

**3.** Our analysis of HAVE possessives that display $P_{\pi[CD]}$ or $P_{\pi[NCD]}$ extends without significant changes to WITH possessives that display $P_{\pi[CD]}$ or $P_{\pi[NCD]}$, too.

Now consider what happens during the derivation of HAVE possessives that display $P_{\pi[NCD]}$, which is the functional head that is only present in those dialects that permit POGs. In simple cases like (23a), $P_{\pi[NCD]}$ selects for a SpatialP whose head is specified to **not** assign case. Because case is not assigned in-situ to *the box* in (23b), *the box* undergoes A-movement into a position in which it may be assigned case. This A-movement, we claim, leaves behind a POG.[4]

(23)  a.  This box has ribbons in.
　　　b.  [This box]$_1$ has [$_{PP}$ $P_{\pi[NCD]}$ [$_{SpatialP}$ ribbons [$p$ in $t_1$]]].

It is important at this juncture to note that we are not claiming that the entirety of $P_{\pi[NCD]}$'s complement must be a non-case domain. Rather, we are claiming that only the head that $P_{\pi[NCD]}$ selects for (call it β) must be unable to assign case. If β itself selects for a head that usually assigns case (call it γ), then γ will assign case.

It should be clear from this elaboration that our simple A-movement analysis of POGs not only accounts for the dialectal variation that exists between BrE and other Englishes in a manner consistent with current approaches to microvariation, but also straightforwardly captures the generalisation from (12) in §3, which is repeated below in (24). This is because P-objects that are not *immediately contained* within βP will be assigned case in-situ by the head of γP, which is $v$ and $p$ in the case of HAVE possessives and WITH possessives, respectively. This in-situ case-assignment will preclude A-movement of the P-object and hence precludes a POG.

(24)  A POG can replace a P-object α only if α is *immediately contained* within the maximal projection of βP, where
　　　a.  βP is the sister of possessive *have* or *with*;
　　　b.  α is *immediately contained* in βP if no maximal projection γP intervenes between α and a projection of β.

To provide a concrete example, consider (25a), which is repeated in a modified form from (16c). Even though this structure may contain $P_{\pi[NCD]}$ in BrE, only the direct complement of $P_{\pi[NCD]}$, which is the spatial $p$ head, must be specified as a non-case-assigner (25b). The GenP complement of this spatial $p$ is not itself specified as a non-case-assigner (as GenP is not the direct complement of $P_{\pi[NCD]}$), and consequently GenP assigns case to the P-object in-situ, which precludes A-movement of the P-object and hence precludes a POG.

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4. Note that the possessum *ribbons*, whose case-assigner is *has*, does not count as an intervener between the base and landing position of the A-moved element in (23b), as the possessum is rendered inactive by virtue of having all of its features checked before A-movement of the possessor occurs. One might contend that the possessum is instead a 'defective' intervener, but we know of no evidence supporting this contention (and see Bruening 2014 for extensive arguments against the existence of defective intervention generally).

(25)  a.  I drank at the pub with the most people inside of *(it).
b.  I drank at the pub [with$_{\pi[\text{NCD}]}$ [$_{\text{SpatialP}}$ the most people in [$_{\text{GenP}}$ side of *(it)]]].

To summarise, we have sketched an analysis of POGs that treats them as the product of A-movement. By attributing the creation of POGs to the featural specification of a single head that is unique to HAVE/WITH possessives (i.e. P$_\pi$), we have accounted for the three core properties of POGs introduced in §§1–4. First, POGs can only be licensed in BrE because only speakers of BrE have two distinct versions of P$_\pi$ in their lexicon. Second, POGs are restricted to HAVE/WITH possessives because only HAVE/WITH possessives invoke P$_\pi$. Finally, the generalisation in (24) holds because the influence of P$_\pi$ is strictly local.

## 5.  Considerations for the current analysis

The analysis we develop above is preliminary; some outstanding issues remain. To capture the complete distribution of POGs, certain refinements to our preliminary analysis are necessary. In this section, we discuss some additional, challenging observations about POGs, and provide tentative suggestions about how they might be accommodated by the A-movement analysis we outlined in §4.

First, our analysis does not distinguish between prepositions and particles. Indeed, if Svenonius (2010) is correct that the class of English particles includes *up*, *on*, and *in*, then our characterisation of these as spatial prepositions in §3 is incorrect. Particles potentially complicate the distributional picture for POGs in three ways. First, GenPs appear to make for suitable complements of *have* and *with* if they contain a particle, contrary to the conclusion reached in §2 (26a). Second, SpatialPs that otherwise license POGs become severely degraded if they contain an additional particle, which is unexplained on the analysis from §4 (26b). Finally, participial verbs may license POGs if they are followed by a particle, which contradicts our claim from §4 that only *p*Ps may be non-case-assigning domains (26c).

(26)  a.  I drank from the bottle [with [$_{\text{GenP}}$ the top **off** of it]].
b.  This shelf [has [$_{\text{SpatialP}}$ lots of old books **up** on *(it)]].
c.  The barman's given me a drink [with [$_{v\text{P}}$ bits floating **in** (it)]].

While it seems clear that the generalisation in (24) requires amendment to account for these observations, the main thrust of the generalisation — namely, that structural simplicity within the complement of HAVE/WITH is required to license POGs — is still upheld. If Svenonius is correct that particles are the phonological exponents of *p* heads, then it seems that more careful consideration of the

possibilities for combining transitive and intransitive *p*Ps should produce a more comprehensive version of the generalisation in (24).

As another potential challenge, a number of 'elsewhere' prepositions (i.e. prepositions that encode neither spatial, path, nor genitive relations) that are permitted in simple HAVE/WITH constructions also fail to license POGs. These include comitative *with*, comparative *than*, interspersal *among/amid*, and 'origin' *from*:

(27)   a.   A car with newer models **than** *(it(self)) shouldn't be put on the market.
       b.   A kangaroo with a joey **with** *(it) just hopped through the park.
       c.   This crowd is likely to have provocateurs {**amid**(**st**)/**among**} *(it).
       d.   London has many famous people **from** *(it).

To rule such POGs out, we might appeal to the 'structural complexity' account of POGs from §§3–4: perhaps these PPs involve unseen complexity of the sort that inhibits licensing of POGs. For instance, one may propose that *from* in (27d) is a regular path preposition that is selected for by a null instance of *coming*. The extent to which such proposals are empirically viable remains to be investigated.

Additionally, even if contained within a simple HAVE/WITH possessive structure, only non-human P-objects can be realised as POGs:

(28)   a.   Without realising it, John had the Queen of England opposite *(him).
       b.   That guy looks like he has ten pints of beer in *(him).
       c.   The woman with a vampire behind *(her) is oblivious to the danger.
       d.   Managers with too many workers beneath *(them) often develop megalomania.

As is well known, non-human pronominal P-objects also display an exceptional property in Dutch: they must surface as *R-words* (Van Riemsdijk 1978).[5]

(29)   Ik denk dat Jan **er**naast        wil    zitten.
       I   think that Jan there-next.to wants to.sit
       'I think that Jan wants to sit next to it.'

Despite this similarity, the analysis we sketched above does not provide a direct means of relating Dutch R-words and English POGs, though it is not clear that our analysis should be revised to accommodate this similarity. R-words may 'escape' the PP domain in which they are base-generated (Van Riemsdijk 1978), which, for Den Dikken (2010) and Koopman (2010), proceeds via an 'escape hatch' that is

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**5.** The prohibition on [+human] POGs appears to be syntactic rather than semantic, as P-objects whose denotations comprise groups of [+human] individuals are suitable as POGs, shown in (i). Thanks to an anonymous reviewer for pointing this out.

   (i)   This party has defectors in (it).

situated in the PP left-periphery and which is reserved for R-words. Bearing this in mind, one may speculate that, for reasons currently unknown, the A-movement that creates POGs in BrE must also proceed via an equivalent escape hatch, which, like the escape hatch for R-words, is reserved for non-human elements only.

Lastly, we should point out that certain P-objects are freely omitted in **all** varieties of English (cf. Svenonius 2010), including full GenP (30) and PathP (31) P-objects.

(30)   a.   I drank from the bottle with the top **off** (of it).
       b.   I drank at the pub with the most people **inside** (of it).

(31)   a.   It's a beautiful location with some top-quality schools {**close by/ nearby**} (to it).
       b.   That film was a just remake with most of the violence **taken away** (from it).

While these dropped P-objects are not POGs — as POGs are (i) only observed in BrE, (ii) are only licensed in ʜᴀᴠᴇ/ᴡɪᴛʜ possessives, and (ii) may only distribute like DP arguments (not PPs) — it is worth considering whether POGs and these null phrases are related. If the A-movement analysis in §4 is correct, then one expects no relation to hold between POGs and these null GenPs/PathPs. We leave this matter open.


## 6.   Conclusion

In this paper, we introduced the hitherto-unreported phenomenon of preposi-tional object gaps (POGs), which is only observed in British English spoken in England. After demonstrating that POGs may only arise in place of prepositional objects occurring in simplex complements of ʜᴀᴠᴇ/ᴡɪᴛʜ possessives, we out-lined a preliminary analysis that straightforwardly captures these observations. This analysis treated POGs as created by A-movement of the possessor. In the paper's penultimate section, we listed some additional properties that POG con-structions display, and provided tentative suggestions about how our preliminary A-movement could be amended and extended to account for these properties.

If our A-movement analysis withstands scrutiny, then POGs can perhaps be used to diagnose the internal structure of English PPs. In that case, POGs are not mere oddities of microvariation (however interesting), but are in fact windows into the non-verbal domain of English subsentential syntax.

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