Phenomena involving subject-auxiliary inversion in English led Rizzi (1990, 1996) to coin the term *Residual Verb Second*¹ (see also Vikner 1995: §3.3.2 and Holmberg 2015: §1.1).

- Residual (adj.) | /rɪˈzɪldʒəl/ (New Oxford American Dictionary, 3rd ed.)
  1. Remaining after the greater part or quantity has gone; left after other things have been subtracted.

Clear implication of the term (*Option 1*):

- The verb second (V2) phenomena we see in e.g. English and French are vestigial, persisting through into the present-day language from some earlier historical variety.

...Really just an implication, though—in Rizzi’s own words, Residual V2 refers to:

- “…construction-specific manifestations of [T]-to-C movement in a language…which does not generalize the V2 order to main declarative clauses.” (Rizzi 1996:64)²

- *Option 2*: “Residual V2” = Any marked patterns of V2 in otherwise non-V2 languages (regardless of historical context).

**Empirical question:** are V2 phenomena in otherwise non-V2 languages necessarily vestigial? (Is Option 1 the right one?)

- **Today’s answer:** No. English has innovated V2 (inc. surface-V1) phenomena relatively recently.
  
  - V2 is still productive in (varieties of) English, and is associated with focused peripheral content.
  
  - In (1a), this content is overt (a quantificational/evaluative operator: Biberauer 2010);
  
  - In (1b), this content is covert (a negative operator: Sailor 2016), resulting in a V1 surface profile.

(1) a. MAN is it hot today! (Exclamative V2)

b. Am I fuck going outside today! (It’s too hot.) (Fuck-inversion)

**Goals for today’s talk:**

- Review facts from recently-innovated Exclamative V2 and *fuck*-inversion (FI);
- Based on this, a simple point of clarification: “Residual V2” = *Partial* V2;
- Step back and look at the typological picture of left-edge operators associated with V1/V2.
- Speculate on the source of this rediscovery of V2 (hint: the pattern was never fully lost).

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¹ Belletti and Rizzi (1996:7): “Instances of residual V2 are Subject-Aux Inversion in English, Subject Clitic Inversion in French, and other inversion processes typically involving the subject and the inflected verb in interrogatives”. Curious here that they include the “…in interrogatives” restriction, given Rizzi’s (1990, 1996) own discussion of non-interrogative Negative Inversion in English. Regardless, it is clear that both interrogative and non-interrogative inversion phenomena in these languages meet the spirit of the definition of Residual V2.

² By *construction* here we can assume Rizzi means roughly clause type, given V2’s well-known sensitivity to Force and (non-indicative) mood.
1 Background on verb second and “residual” verb second

Verb second (V2) refers to the surface requirement of a language to place its tensed/finite verb immediately after the first constituent of the clause.

- This first constituent can be subject (yielding e.g. S-V order), or some other fronted XP (XP-1, yielding e.g. XP-V-S).

(2) German
   a. [Die Kinder]_{XP-1} sahen\textsubscript{V2} den Film
      The children saw the film
   b. [Gestern]_{XP-1} sahen\textsubscript{V2} die Kinder den Film
      Yesterday saw the children the film

- The V2 phenomenon is rare crosslinguistically: almost unattested outside Germanic (see Holmberg 2015 for an overview).

   ▷ But what about English?

A variety of special (mostly non-indicative) clause types in English exhibit Rizzi’s (1990, 1996) “Residual V2” pattern:

(3) a. Which pictures of herself\textsubscript{\textup{singular, plural}} will Mary\textsubscript{\textup{singular, plural}} buy?
   b. At none of his own parties did John\textsubscript{\textup{singular, plural}} actually show up.
   c. Only on his own terms would John\textsubscript{\textup{singular, plural}} agree to the proposal.
   d. So pleased with herself\textsubscript{\textup{singular, plural}} was Mary\textsubscript{\textup{singular, plural}} that she forgot to say goodbye.

Such sentences are striking in present-day English, which in typical indicative clauses does not exhibit the V2 property.

- Historically, English was a V2 language, but this disappeared around the 15th century (Fischer et al. 2000: ch. 4).
- This would seem to be behind the choice of the term “Residual” to refer to the marked V2 patterns in (33), but we will return to this.

Rizzi suggested that this marked V2 effect arose due to the presence of a left-edge operator whose presence triggered T-to-C movement (building on earlier proposals from Klima 1964 and May 1985).

- This inversion arose from a need to satisfy a criterial property in a Spec-Head configuration: see the WH-criterion (ibid.), the FOCUS-criterion (Brody 1990, Aboh 1993), and the NEG-criterion (Haegeman and Zanuttini 1991).

  ▷ These were later subsumed by the generalized AFFECTION-criterion; see Haegeman (1995: ch. 2) for detailed summary.

- To illustrate, consider the NEG-criterion below, and a rough sketch of Haegeman’s (2000:§5.4) analysis of its effects:

(4) The NEG-criterion (Haegeman and Zanuttini 1991)
   a. A NEG-operator must be in a Spec-Head configuration with an X\textsubscript{NEG} (a head bearing a negative feature)\textsuperscript{3}
   b. An X\textsubscript{NEG} must be in a Spec-Head configuration with a NEG-operator.

\textsuperscript{3}See e.g. Laka (1990) and Haegeman (1995, 2000), a.o. on the distribution of [NEG], which is inherently related to tense (and thus T).
Never will he vote for independence.

- Key intuition behind the Residual V2 class: all involve both quantificational and affective (e.g. evaluative) properties, properly understood as the workings of an operator in the left periphery.

Without question, some of these patterns are indeed vestigial (e.g. V2 in wh- questions). But are they all?
- This question has already been answered in the negative; I briefly review this below.

2 Innovative verb second: Exclamative V2

Among the other marked V2 phenomena in English (3), we also find inversion in a subtype of exclamatives (McCawley 1973, Elliott 1974, Rett 2008, Brandner 2010):

(6) a. MAN do I need a drink!
   b. WOW is it hot in here!
   c. BOY would that be nice!

- Rett (2008): exclamatives of all types involve a degree operator that moves to its clause's left edge.
  - This operator carries a degree interpretation, a necessary component of exclamatives (which are expressions of speaker surprise at the extent of some degree: e.g. thirstiness, hotness, etc.).
  - The degree OP in inversion exclamatives is like other operators in that it can trigger inversion (see above).

Could this variety of V2 be “residual” / vestigial?
- Highly unlikely: historical English did not use V2 to form exclamatives.
  - For example, Walkden (2013) argues convincingly that Old English (wh-)exclamatives pattern like subordinate clauses: i.e., they are not V2 (but rather V-late / V-final).

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4This phenomenon is also referred to as an inversion exclamative (Rett 2008). Note that some speakers allow for a comma-like intonation break following the expressive while still maintaining the inversion (a fact not discussed in McCready 2009, who otherwise characterizes some intonational properties of exclamatives). Despite this “comma intonation” (ibid.), these exclamatives behave exactly like those with “integrated intonation”, e.g. in disallowing non-gradable predicates. This suggests that the inversion is what distinguishes these exclamatives from their V3 counterparts, not simply whether the expressive is integrated or not (cf. Biberauer 2010). One possibility is that inversion exclamatives with comma intonation involve two distinct clauses: an initial expressive clause connected paratactically to a V1 exclamative clause containing its own null operator; however, the semidegraded status of V1 exclamatives without a preceding expressive would seem to militate against this analysis.
• So exclamative V2 is a modern innovation – an “extension of an already-existing pattern” (Biberauer 2010:9).
  ▶ The already-existing pattern in question is the one shared by all other marked V2 phenomena in English:
    ▶ A fronted operator interfaces with Focus in the left edge, triggering T-to-C movement.
  ▶ The innovation: downward reanalysis of the expressive element (e.g. MAN) from an adjunct on a regular (non-V2) clause into a Rett-style degree operator, at which point inversion emerged (see Biberauer 2010:§3 for discussion).

Take-home point from Biberauer (2010, also echoed in Holmberg 2015:§1.1-2): if a marked V2 phenomenon is a recent innovation, by definition it is not “residual”!

• So we have a preliminary answer to the initial question.
• But we should also ask whether the innovation of Exclamative V2 was a fluke, or if it really is part of a more productive general pattern.
  ▶ Next, another recently-innovated structure: one with a V1 surface profile, but with V2 syntax.

3 Innovative verb second: Fuck-inversion

In colloquial registers of English throughout the British Isles, the V1 phenomenon below expresses emphatic negation, yet lacks overt negative morphology.

• Instead, in addition to inversion, a conspicuous taboo element arises in post-subject position:

(7) A: John is a nice guy.
    B: Is he fuck (a nice guy) – he stabbed my cousin!
        = No he isn’t (a nice guy)!
(8) They’re all wearing kilts, but will I fuck be wearing one of them.
        = I definitely won’t be wearing one of those.

In the varieties that have FI (to be made clear), there is some variation in the taboo element.

• A non-exhaustive set is below:5

(9) A: Apparently John has a new girlfriend.
    B: Does he
        
        fuck
        ’eck
        hell
        ever
        bugger
        bollocks
        balls
        …

In general, the taboo element in an FI clause must appear immediately after the subject,6 no adverbs, auxiliaries, or other material can intervene:

5A proper subset of the varieties with FI also allow a variant involving a continuation with as like, typically with ‘eck as the taboo element, e.g. Is he ‘eck as like? I leave this aside; see Sailor (2016) for some discussion. Also note that the use of ever in FI produces strings that are surface-identical to a type of exclamative in English (perhaps chiefly in American varieties), but they crucially differ in that the latter has emphatic affirmative polarity. For example, the affirmative exclamative with ever is licensed in contexts where the speaker emphatically agrees with or confirms a preceding assertion:

(i) A: These cheese grits are outstanding.
    B: (Boy.) Are they ever! = Yes, they really are!

6In certain contexts, some of my consultants allow the taboo element in FI to surface after the predicate: see Appendix 3.
(10)  a. *Has he clearly (fuck/'eck/etc.) (done that).
    b. *Should they have (fuck/'eck/etc.) (been doing that).

This fuck-inversion (FI) phenomenon is reminiscent of canonical negative inversion (CNI) in Standard English (Lasnik 1972, Rudanko 1982, Haegeman 1995, a.o.), but with a different surface profile (V1 vs. V2):

(11) They’re all wearing kilts, but under no circumstances will I be wearing one of those.

CNI is a typical example of Residual V2, involving a fronted operator accompanied by the raised finite V.

- We’ll now see that CNI and FI share deep syntactic and semantic similarities, indicating the presence of a non-overt negative OP in the left edge of FI clauses.

- This means FI has true V2 status, despite its appearances.
  - Shortly, I’ll turn to FI’s status as a newly-innovated feature of English, showing that it is in no way “residual”.

3.1 Negative and hyponegative properties of FI

FI is an instance of what Horn (2009) calls hyponegation, in which a negative interpretation arises from an utterance lacking overt standard negative morphology.

- Most famous example in English: I could care less (=I couldn’t care less)

Despite lacking overt negative morphology, hyponegative clauses (inc. FI) behave in many ways like standard negative (SN) clauses, i.e. clauses with overt sentential negation (not/-n’t).

- Clauses involving canonical negative inversion (CNI) also behave in many ways like SN clauses.

- All three clause types pattern together with respect to standard tests for negation in the literature (Klima 1964, Horn 1989:246, Haegeman 2012:43, a.o.).

First, like SN, both CNI and FI are downward entailing:

(12) John claims to be a nationalist, but...
    a. He will not vote for independence. ⇒ He will not vote for radical independence.  
    b. Never will he vote for independence. ⇒ Never will he vote for radical independence.  
    c. Will he fuck vote for independence. ⇒ Will he fuck vote for radical independence.

FI also licenses so-called strong NPIs, e.g. punctual-unti l (Horn 1989, Gajewski 2011):

(13) My flight is tomorrow, but...
    a. I will not be leaving until they pay me my money.  
    b. No way will I be leaving until they pay me my money.  
    c. Will I fuck be leaving until they pay me my money.

Like SN and CNI clauses, FI can take neither tags, but it is incompatible with so tags (Klima 1964):

(14) Q: Are you voting ‘no’ in the referendum?
    a. A: I am not, and [neither / #so] are my friends.  
    b. A: Under no circumstances am I doing that, and [neither / #so] are my friends.  
    c. A: Am I fuck, and [neither / #so] are my friends.

Klima (1964): only negative clauses are compatible with not even continuations. Again, CNI and FI both pattern like SN in this respect:

(15) Q: Did John bring any gear?

---

7This (among other things) distinguishes fuck-inversion from another class of hyponegative contexts, the Flaubert triggers of Horn (2001), which are not downward entailing.
a. A: He didn't bring any, not even any jellies.  \textit{SN}

b. A: No chance did he bring any, not even any jellies.  \textit{CNI}

c. A: Did he fuck bring any, not even any jellies.  \textit{FI}

A final \textit{I don't think} parenthetical is another diagnostic for negation in the host clause (Postal 2004:§2.6). CNI clauses and, for at least some speakers, FI clauses can take these:\footnote{Consultants report varying degrees of acceptability for (16c), which could be due to two different factors. First, these final parenthetical clauses convey some degree of epistemic uncertainty, making their use following an FI clause (and to a lesser extent a CNI clause), which carries strong epistemic certainty, slightly unnatural. Second, as Larry Horn (p.c.) points out, this test otherwise seems to require \textit{overt} negation, perhaps to an even greater degree than the other tests considered, making it particularly surprising that anyone should accept (16c). Perhaps speakers vary in their sensitivity to these constraints.}

(16) It's John's birthday tomorrow, but...

a. He's not gonna let anyone give him presents I don't think.  \textit{SN}

b. At no point is he gonna let anyone give him presents I don't think.  \textit{CNI}

c. %Is he fuck gonna let anyone give him presents I don't think.  \textit{FI}

Finally, FI can associate with focus, as SN and CNI can. This is not unique to negation, but it is still a property associated with it:

(17) He may have some luck getting Mary to vote for the Tories, but...

a. He won't be convincing \textit{ME}.  \textit{SN}

b. No chance will he be convincing \textit{ME}.  \textit{CNI}

c. Will he fuck be convincing \textit{ME}.  \textit{FI}

So FI bears a negative interpretation and patterns like SN clauses with respect to the relevant tests, just as CNI does.

Important: while these three clause types share the above behavioral characteristics, they are not interchangeable

- In particular, FI and CNI have a narrower distribution than SN clauses, by way of (at least) their emphatic character (see Culicover 1991 and Haegeman 2012:§1.5.4 on this property of CNI, and Green 2014 on another type of emphatic negative inversion)
- E.g. while an SN clause can be used as a \textit{partial answer} to a wh-question (Simons 2007:1042), both CNI and FI are unacceptable there:

(18) Q: Who ate all the Jaffa Cakes?

a. A: John didn't. \textit{SN}

b. A: #In no way did John. \textit{CNI}

c. A: #Did John fuck! \textit{FI}

This follows if the main contribution of CNI and FI is emphatic polarity:

- The portion of the utterance that would otherwise answer the question (\textit{e.g. John}) lacks the necessary “main point status” (in the sense of Simons 2007) that felicitous answers to wh-questions require.

Finally, a sentential negation marker cannot co-occur with CNI or FI, even when negation is present in an antecedent:\footnote{I distinguish standard negation here from constituent negation, the latter being fully compatible with FI, and seemingly with CNI: \textit{A: John says he's able to not drink at parties. B: Can he fuck not drink! No way can he not drink!}}

(19) A: John didn't have a drop to drink last night.

a. B: *No way didn't he (drink)! \textit{CNI}

b. B: *Didn't he fuck (drink)! \textit{FI}

- An explanation of these similarities between FI and CNI is warranted.
3.2 FI involves a silent left-edge negative operator

In both CNI and FI clauses, negation scopes very high—higher than in normal SN clauses.

In SN contexts, there is a well-known ambiguity between negation and because-clauses:

(20) John didn’t cry because he feared violence.

a. \text{NEG} > \text{B/C}: \text{If John cried, it’s not because he feared violence.}

b. \text{B/C} > \text{NEG}: \text{John didn’t cry, and that’s because he feared violence.}

- Assume this scope ambiguity reflects an attachment ambiguity: the because-clause is either construed higher than sentential negation, or lower.

Importantly, this scope ambiguity disappears in the context of CNI—only the high reading for negation is possible:\(^{10}\)

(21) At no time did John cry because he feared violence.

a. \text{NEG} > \text{B/C}

b. \# \text{B/C} > \text{NEG}

- This disambiguating effect follows from the left-edge status of the negative scope-taking operator \textit{at no time}.

  ▶ From its high surface position, this fronted negative operator unambiguously scopes over the attachment site for because-clauses (and see Horn 2014 for a review of other scopal properties of negation in CNI).

Importantly, negation in FI exhibits this same disambiguating effect, i.e. it takes highest scope:

(22) John is a sensitive guy, but did he fuck cry because he feared violence.

a. \text{NEG} > \text{B/C}

b. \# \text{B/C} > \text{NEG}

- By parity of reasoning with the CNI data in (21)...

  ▶ \textbf{Claim:} the derivation of FI involves a silent counterpart of the overt negative operator seen in CNI.

Further support: NPIs in subject position are licensed in both CNI and FI, but are impossible in SN clauses:

(23) We might have gotten a bit lairy at the football match, but...

a. \#...any of us didn’t throw flares onto the field.

b. ...at no time did any of us throw flares onto the field.

c. ...did any of us fuck throw flares onto the field.

- This follows again from the especially high scope of negation in these inversion phenomena.

Moreover, in both CNI and FI, disjoined subjects are interpreted conjunctively; i.e., the negative proposition expressed by the CNI and FI clauses holds for each disjunct.

- English disjunction only behaves this way under the scope of negation, and disjoined subjects in SN clauses do not receive a conjunctive reading (Horn 1989).

(24) It’s St. Patrick’s day tomorrow, but...

a. ...John or Mary won’t be wearing anything green.

\hspace{1em} = \text{John won’t wear green or Mary won’t wear green}

\hspace{1em} \# \text{John won’t wear green and Mary won’t wear green}

b. ...no way will John or Mary be wearing anything green.

\hspace{1em} = \text{John won’t wear green and Mary won’t wear green}

\hspace{1em} \text{CNI}

c. ...will John or Mary fuck be wearing anything green.

\hspace{1em} \text{FI}

\(^{10}\)Unsurprisingly, the (b) reading is available with a strong intonational break between the CNI clause and the because-clause, indicating highest (clause-level) attachment for the latter (see e.g. Haegeman 2012:\$4.4 on the central vs. peripheral distinction in adverbial clauses).
Like (23), this indicates that subject position in both CNI and FI falls within the scopal domain of the negative operator, a domain whose upper bound is higher than that of SN clauses.\footnote{This also holds for disjoined subjects in clauses involving a fronted neither alongside an inverted auxiliary, as expected: see Wood (2014:81).}

Again, this is consistent with the claim that FI, like CNI, involves a left-edge negative operator.

Finally, the inability of both CNI and FI to co-occur with a standard negative marker (see (37)) follows:

- Either there is positional competition between the base position of the negative OP and that of standard negation, or the operator's movement creates an intervention/minimality effect with standard negation.
- Either way, the pattern in (37) falls out (see also Rett 2008, Biberauer 2010 for similar proposals regarding the co-occurrence restriction between negation and Exclamative V2).

The above observations reflect the high (pre-subject) position of the negative operator in CNI clauses.

- The fact that FI clauses behave exactly the same way indicates that they involve a high negative operator as well, only one which happens to be non-overt (see Haegeman 1995:185 on other non-overt negative operators).\footnote{Note that whereas CNI is generally taken to be a main clause phenomenon, there are environments in which embedding is possible (Culicover 1991:13). On the other hand, FI can never be embedded (under bridge verbs or otherwise):

\begin{enumerate}
  \item I said that not once had Robin raised his hand. \hspace{1cm} \textit{CNI}
  \item *I said that had Robin fuck raised his hand. \hspace{1cm} \textit{FI}
\end{enumerate}

This asymmetry is unexpected given the similarities we have seen between the two so far: if the two phenomena make use of the same sort of polarity operator, then under an operator/intervention-based approach to main clause phenomena, we either expect both to be embeddable, or neither. This matter remains open for now, but note that Exclamative V2 also shares this property (Rett 2008:616). Thanks to Liliane Haegeman for helpful discussion.}

- The overt vs. non-overt status of the negative operator determines the verb-second (V2) vs. verb-initial (V1) surface profile of the inversion phenomenon (see Horn 2014 on this distinction)

Both are of course V2 in the syntax (cf. the \textit{NEG}-criterion; see Haegeman 1995:185 on other non-overt operators).

A derivation for FI is below, built on that of CNI in (5) to properly capture the interpretational properties above.\footnote{In Appendix 2, I consider and reject a covert \textit{fuck}-raising story (versus a null-OP story).}

(25) Will he fuck (vote for independence).

(On the status of the taboo element in [Spec, FocP] here, see Appendices 2-3.)
3.3 FI is a recent innovation: on the dialectal distribution of FI

An ongoing survey of English speakers indicates that FI is ubiquitous throughout the British Isles:

- It is widely attested across England, Scotland, Wales, Northern Ireland, and the Republic of Ireland.
- FI belongs to a colloquial register, and thus is not necessarily in the productive grammar of all such speakers.
  - But speakers from all over the British Isles recognize it as a “local” property.

But outside the British Isles, the distributional picture changes dramatically.

- That is, FI appears to be completely unattested elsewhere:
  - Not present in varieties from the US, Canada, South Africa, Australia, New Zealand, and Singapore, informal or otherwise.

How can we explain this?

- One option to be dismissed immediately: FI has been present in English since it was a true V2 language; the present-day dialects that lack it now simply lost it.
  - It would be an incredible coincidence if all and only the varieties spoken in the British Isles were those that preserved FI, while those other varieties not in direct contact (e.g. Canadian English and New Zealand English) simultaneously lost it.
- The clear conclusion: FI was not present in the grammar of English when these colonial varieties crystalized.
  - It was innovated in the British Isles after colonialism, probably quite recently.
  - This explains its absence everywhere else. (Of course, further corpus work will be necessary in order to verify this hypothesis.)

Thus, on the basis of dialectal distribution alone, we can conclude that FI is a recent innovation, and thus not “residual”, akin to Exclamative V2 (Biberauer 2010).

- To drive this simple point home: we should perhaps do away with the term “Residual V2” entirely (except where true historical connotation is intended).
  - In its place, I suggest the term Partial V2, on par with e.g. Partial pro-drop, in which only special environments allow the phenomenon in question.
  - “Residual V2” = Partial V2.

In the time remaining, we can turn to the broader typological picture of Partial V2 phenomena.

4 The typology of operator-driven inversion

The operator status of FI directly parallels existing assumptions in the literature regarding question operators.

- Following Klima (1964), Haegeman (1995:§2.2.4) argues inversion in matrix polar questions in English is triggered by a silent WH-operator in the left periphery (the WH-criterion: Rizzi 1996, a.o.).
- The existence of such an operator is more or less uncontroversial (though cf. e.g. Brandner 2010), as it grants non-exceptional status to V1 polar-Qs (and imperatives, and exclamatives...) in languages that otherwise require V2 surface order, as in Germanic.
  - Thus, CNI is just the negative analogue of a non-subject wh-question (overt OP + inversion), while
  - FI is the negative analogue of a polar question (non-overt OP + inversion).
- This is directly predicted by Haegeman (1995, 2000, 2012) and Rizzi’s (1996) analysis of CNI, represented below (the grey cell reflects the previously-unattested prediction in the typology):
This OP-based approach to inversion in FI is consistent with the emphatic interpretation of negation FI receives.

- OP movement in both CNI and FI is focus movement, associated with emphatic interpretations.
  - Indeed, Exclamative V2 is a non-negative, non-interrogative counterpart with the same emphatic interpretation, along with an overt operator (Rett 2008, Biberauer 2010):

(27) **MAN** is it hot today!

- The focus-fronted operator *man* yields the emphatic interpretation, and triggers inversion (see the FOCUS-criterion: Brody 1990, Aboh 1993).

We now have an account for many of the properties of FI described earlier, and for its similarity to CNI in particular.

Interestingly, exclamatives in other Germanic languages, for example Dutch and Afrikaans, can appear without an overt left-peripheral operator.

- Nevertheless, they exhibit inversion as well, surfacing with marked V1 order (Brandner 2010):

(28) Heeft **JAN** een dikke buik!
  has **Jan** a thick belly
  ‘**MAN** has John got a big belly!’

(29) Het **JY** (nou) ‘n uitstekende opstel geskryf!
  Have you now an excellent essay written
  ‘**MAN** have you written an amazing essay!’

- By parity of reasoning, we can speculate that these structures also involve a non-overt, inversion-triggering operator in the left periphery.

- Thus, we can continue to expand the above typology to include not just inversion phenomena associated with emphatic negation, but with emphatic non-negative operators as well:

(30) | Overt OP | Question | Emphatic negative | Emphatic non-negative |
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<tr>
<td></td>
<td>wh- question</td>
<td>canonical negative inversion</td>
<td>V2 exclamatives (Eng)</td>
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<tr>
<td></td>
<td>polar question</td>
<td><strong>fuck</strong>-inversion</td>
<td>V1 exclamatives (Ger)</td>
</tr>
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</table>

- Further work is needed to pin down the semantics of these operators, e.g. what (sub)types there are (e.g. degree, polarity, evaluative...), and whether these can be distinguished on empirical grounds (e.g. in embedding, say).

- What we can say is that general pattern is conditioned by operators under focus (at the left edge).

5 Extensions

So, V2 is productive in (varieties of) English: that is, English is ‘rediscovering’ V2. But why?

- Why would a language begin making productive use of a pattern it began ditching centuries earlier?
  - Perhaps especially relevant to ask w.r.t. V2, a phenomenon that is nearly unattested outside Germanic (i.e. it is apparently not a pattern easily innovated from scratch).

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14Note that the pitch accent in (29) can also be realized on either the finite V (*het* ‘have’) or the degree-denoting element (*uitstekende* ‘excellent’) rather than on the initial verb, without an apparent change in meaning (p.c. Theresa Biberauer).
• Answer: because it didn't finish the job.
  • The V2 pattern persisted in questions (both wh- and null-OP polar questions): these are truly vestigial.\footnote{Other V2 clause types, e.g. CNI, conditionals, etc. may also be truly vestigial; I have not investigated this yet.}
  • Since the pattern was never truly abolished in the language, it was always a candidate for becoming productive again:
    • Learners encounter a fronted OP and inversion in special clause types (questions), and must analyze these appropriately.
    • It is a short step from:
      • Interrogative clause with fronted OP\textsubscript{FOC} plus inversion
    • Broadened to:
      • Non-indicative clauses (in general) with fronted OP\textsubscript{FOC} plus inversion
    • Particularly given the marked word orders (esp. w.r.t. the verb) that characterize other non-indicative clause types in English (imperatives, hortatives, optatives, etc.).
  • So, learners were always encountering a limited V2 pattern, meaning the option was always there for it to be conscripted into use for a broader class of clause types.
  • Crucially, this is an option, not fate:
    • Learner-induced language change is not fatalistic, but rather just based on options presented by the PLD (see Roberts 2007, Biberauer 2016 for further discussion).
    • This is demonstrated by the fact that there is variation of V2 across varieties of English, as we have just seen.
  • Thus, V2 is unlikely to spring into existence from scratch; but, as long as there is an existing template to extrapolate from, it is a candidate for broadening / analogy.
    • See Sailor and Biberauer (forthcoming) for further discussion.

Additionally: innovative V2 is attested outside English, namely in Afrikaans.

• Case study in how the pattern can be broadened not only beyond marked clause types (those with focused OPS), but even beyond the familiar Germanic environments:
  • Afrikaans has productive embedded V2, for example, compared to the more restricted pattern most other Germanic languages.
  • This shows that extension of the V2 pattern isn’t just a quirk of English, nor is it necessarily constrained by mood / clause type.
  • See Biberauer (2016) for extensive discussion.

6 Conclusion

I’ve attempted to make a simple point: while some V2 phenomena in English are residual, not all are.

• Besides Exclamative V2, we know that at least \textit{fuck}-inversion (FI) is a recent innovation.
• Therefore, English is more accurately characterized as a \textit{Partial V2} language (rather than a Residual V2 language).

To make the point, I’ve provided a detailed description of FI, which has not received prior attention.

• I hope to have shown that FI is amenable to an analysis akin to those of other V1/V2 operator-driven inversion phenomena (canonical negative inversion/CNI, so/neither-inversion, etc.)

FI attests a previously-unattested prediction in the typology of inversion phenomena involving left-edge operators:

- FI involves a focused negative operator, aligning it with CNI;
- Its operator is non-overt, aligning it with polar questions and V1 exclamatives.

An open question: why should the grammar of English continue to “extend” the V2 pattern into new phenomena?

- No real answer, but a speculation:
  - If Roberts (2004), Holmberg (2015), a.o. are correct that V2 is the convergence of two independent movement features (XP- and X-mvt), and one or both of these features in English is associated with marked clause types (the “affect” property of Klima 1964, Rizzi 1990),
  - Then innovation of V2 in clauses of the exclamative and FI sort is not only understandable, but expected.

References

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Appendix 1: FI doesn't involve metalinguistic negation or a squatitive

FI freely arises in contexts where it takes another speaker's assertion as an antecedent and emphatically denies the truth of that assertion (repeated from (7)):

(31) A: John is a nice guy.
    B: Is he fuck (a nice guy)!
    = No he isn't (a nice guy)!

This makes FI look like a total denial / reversing move of Farkas and Bruce (2010:$4.1) (cf. retorts in Sailor 2014: ch. 3).

- In this capacity it appears to behave along the lines of like hell, a similarly colloquial denial strategy (but with wider dialectal distribution\(^{16}\)):

(32) A: John is a nice guy.
    B: Like hell he is!
    = No he isn't (a nice guy)!

- However, FI exhibits several properties that distinguish it from like hell and certain other reversing strategies.

First, this negative use of fuck always triggers inversion, while, for many speakers, like hell does not (Drozd 2001:57):\(^{17}\)

(33) A: John is a nice guy.
    a. B: Is he fuck (a nice guy)!
    b. B: *He is fuck (a nice guy)!
    c. B: %Like hell is he (a nice guy)!
    d. B: Like hell he is (a nice guy)!

Second, FI clauses can arise as emphatic negative answers to neutral polar questions, while like hell is typically infelicitous there (cf. fn. 17):

(34) Q: Is it sunny outside?
    a. A: Is it fuck (sunny outside)!
    b. A: #Like hell it is (sunny outside)!

Finally, Horn (1989), Drozd (2001), Martins (2014) observe that like hell is metalinguistic: it objects to some (sub)part of another speaker's utterance.

- FI can behave this way, as we saw in (7), but it need not.
- FI naturally occurs without a linguistic antecedent, and can be used to cancel an implicature, even one introduced by the speaker's own utterance (see also (12) and (13)):

(35) It's St. Patrick's day, [Implicature: people wear green on St. Patrick's day]
    a. ...but will I fuck be wearing anything green.
    b. *...but like hell I will be wearing anything green.\(^{18}\)

- Moreover, Drozd (2001) notes that as a type of metalinguistic negation, like hell is insensitive to the polarity of its antecedent, meaning it can take a negative clause:

\(^{16}\)I have not found a variety of English lacking like hell, though other strategies (e.g. FI) may be preferred.

\(^{17}\)A minority of my consultants allows inversion with like hell. Interestingly, those same speakers allow like hell as a felicitous response to neutral polar questions (see (34) below), perhaps indicating that these speakers have reanalyzed like hell, shedding its metalinguistic-negative character (see further below) for sentence-level negative status on par with other negative constituents triggering CNI. I leave this aside.

\(^{18}\)Example (35b) might be bad for more than one reason. In particular, most speakers find like hell degraded when the clause it appears in does not contain VP ellipsis. VPE famously prefers a linguistic antecedent, making it difficult to test like hell in the above way.
(36) A: You didn't wash the dishes.
B: Like hell I didn't!

- On the other hand, overt negation is impossible with FI, even when negation is present in its antecedent (see fn. 9):

(37) A: John didn't have a drop to drink last night.
B: *Didn't he fuck!

- FI requires affirmative content to pick up on (see Wood 2014 for a similar restriction with a different emphatic polarity phenomenon).

Continuing the theme from earlier, CNI behaves like FI (and not like like hell) with respect to the environments above:

(38) a. A: In no way is it sunny. (cf. (34))
b. ...but under no circumstances will I be wearing anything green. (cf. (35))
c. *Never didn't he have a drink in his hand.

Thus, FI is distinct from like hell and similar metalinguistic-negative phenomena (see e.g. Martins 2014), but continues to exhibit similarities to canonical negative inversion.

One might wonder if fuck in FI belongs among the class of so-called squatitives (Horn 2001, Postal 2004):

- Jack shit, (diddly) squat, fuck all, etc.: “Expressions of scatological origin” (Hoeksema et al. 2001:viii) that have acquired negative force by means of the Jespersen Cycle (i.e. undergoing reanalysis as a negative) (Horn 2001:§3)
  - However, typical squatitives are thought to be undergoing the process currently, and thus can appear both in the absence of and alongside the standard negative marker (with no change in meaning)

(39) John didn't do jack shit to help us. = John did jack shit to help us.

- On the other hand, overt standard negation is impossible with FI (and I know of no evidence that it ever was possible; see fn. 9), even when negation is present in its antecedent:

(40) B: *Isn't he fuck (a nice guy)! ≠ Is he fuck (a nice guy)!
(41) A: John didn't have a drop to drink last night.
B: *Didn't he fuck!

Moreover, Postal (2004) notes that canonical squatitives:

- Look and distribute like bare nominals of category DP (FI taboo elements don't);
- Occur in argument positions (FI taboo elements don't); and
- Can be paraphrased as either anything or nothing (FI taboo elements can't be).

So although FI is an instance of hyponegation, it does not appear to involve a squatitive of the familiar sort.

**Appendix 2: Against covert movement of fuck**

I argue for a covert negative OP triggering inversion in FI, but a simple alternative might capture the same set of facts (independently suggested to me by Amy Rose Deal and Anders Holmberg):

- Perhaps the taboo element in FI, e.g. fuck, raises covertly to the left edge, triggering the inversion.
- Under this story, the high unpronounced copy of the taboo element would be responsible for FI's negative properties,
inversion, etc.

- This would do away with the need for an independent position for the taboo element; it would simply be generated in [Spec, NegP].
- This would be consistent with the negative semantics often associated with taboo elements (but cf. the previous Appendix).
- This alternative does not require postulation of a non-overt operator, so it is simpler.

However, there are at least two reasons for rejecting this approach, despite its simplicity.

- First, the boring reason:
  - It gives up what is otherwise a straightforward analogy to the non-overt OP widely believed to be present in polar questions, as well as that of other emphatic V1 contexts; see §4.

- Second, the more interesting reason:
  - As a rule, it seems that covert movement never satisfies the XP-1 requirement in V2 languages.
    - That is: covert movement evidently cannot trigger inversion (inc. V-to-C in typical V2 languages).
    - For example, in no V2 languages that I’m aware of e.g. object QR (or wh-in-situ, etc.) lead to a surface V1 profile.
    - Put differently, there are no V2 languages that feature V1 just in case e.g. a quantified object is present.
      - Schematically, the following V2 language apparently does not exist:

\[
\text{(42) A nonexistent V2 language}
\]
\[
a. \text{John bought the book.} \\
b. \text{Bought John every book.}
\]

\[
\text{(43) \{every book\} bought, John \_ every book}. \\
\]

- It is not at all obvious why this should be ruled out (assuming it is, as seems likely). If it’s true that:
  - (a) Verb second is the coincidence of two independent movement features: one for verbs and one for XPs (Roberts 2004, Holmberg 2015), and
  - (b) Covert movement is simply normal movement plus non-pronunciation of the higher copy at PF

- Then why wouldn't the higher copy of the quantified object satisfy the XP-1 condition of V2?
  - One possibility: V2 doesn't work the way we think it does (cf. (a)).
    - Perhaps V2 has a PF component: e.g., a deleted copy fails to satisfy some PF requirement that there be material pronounced before the verb (assuming copy deletion precedes the point at which V2 is assessed)
      - But this can't be right, or at least can't be the whole story: null operators frequently trigger V1 in otherwise-V2 languages/environments (see above).
      - Note that such operators are “born” null (from the lexicon), they’re not made null. This could be crucial (see Thoms and Sailor 2017)
  - Another possibility: covert movement doesn't work the way we think it does (cf. (b)).
    - If it really is raising at LF, then it doesn't matter whether V2 is effected/assessed in the narrow syntax or at PF: QR will never satisfy it.
- I leave these very interesting questions open for future research.

For now, it seems undesirable to assume covert raising of \textit{fuck} is responsible for triggering inversion (\textit{qua} V2) in FI.
Appendix 3: FI taboo elements as polarity-sensitive focus particles

Wood (2008, 2014) analyzes another Partial V2 phenomenon, namely so/neither-inversion:

(44) a. John is planning to buy an SP-1200, and so (too) is Mary.
    b. Mary can't stand trap music, and neither can John.

Like CNI, these also involve a fronted polarity operator in the left edge of the clause,\(^1\), originating in the specifier of the clause-internal polarity projection (PolP, just below TP: Laka 1990, Zanuttini 1991).

Building on Kayne (1998), Wood argues that so/neither inversion clauses involve a polarity-sensitive focus particle.

- These focus particles are generated local to polarity, in the specifier of a low Foc(us) projection selected by Pol\(^0\) at the left edge of the verbal domain (see Jayaseelan 2001 and Belletti 2004).
- In the affirmative case – i.e. so-inversion – the polarity operator is so, and its accompanying focus particle is too (which can be non-overt: see Wood 2014:102).
- In the negative case, Wood takes a decompositional approach to neither, arguing that either is the negative focus particle analogue of too, leaving n- as the polarity operator, analogous to so.
  - A sketch of the underlying structure for so/neither-inversion from Wood (2014) is below (obscuring some irrelevant details):

\[
\text{TP} \\
\text{John} \\
\text{T} \\
\text{will} \\
\text{PolP} \\
\text{OP} \{\text{so}, \text{n-}\} \\
\text{Pol} \\
\text{FocP} \\
\text{too, either} \\
\text{Foc} \\
\text{vP}
\]

For Wood (2008, 2014), the polarity operator and the focus particle together drive the syntax and emphatic interpretation of so/neither-inversion clauses.

- He further notes that the focus particle too in so-inversion can surface in final position.\(^2\)

(46) a. John is planning to buy an SP-1200, and so is Mary, too.
    b. They play well, but so do we, too.

Kayne (1998): the final position for too is derived by short movement of the predicate across the FocP whose specifier hosts too.

- If the FI taboo element is akin to Wood and Kayne's treatment of too, then it should have the same distribution.
- We've seen it clause-finally, but only when the predicate has been elided. When the predicate is pronounced, the examples thus far have only involved an immediately post-subject taboo element.
  - However, a post-predicate position for the taboo element is available, to a subset of my consultants from the

\(^1\)In Wood’s account, the relevant Spec-Head configuration is established in a left-edge polarity projection rather than a focus projection.

\(^2\)Wood suggests that this is in principle possible for the negative analogue of too, i.e. either, but that either gets obligatorily pied-piped up by the negative operator n- due to its morphological requirements.
Midlands and the North of England; 21

(47)  
\begin{enumerate}  
\item A: John says he's gonna steal that car, and I reckon he'll do it.  
\item B: Will he do it fuck!  
\item Q: Do you reckon John will actually ask that girl out?  
\item A: Will he {do that / ask her} fuck!  
\end{enumerate}

Crucially, this final position for the taboo element is only available when the predicate is entirely given in the discourse, preferentially realized as a predicate anaphor (e.g. do {it/that}).

- It is not possible when the FI clause's predicate is discourse-new, i.e. when the FI clause is picking up on an implicature rather than taking an explicit linguistic antecedent:

(48)  
\begin{enumerate}  
\item *It's John's birthday tomorrow, but is he going to let anyone give him presents fuck. (cf. (16))  
\item *It's St. Patrick's day tomorrow, but will I be wearing anything green fuck. (cf. (35))  
\end{enumerate}

I argue that this is directly parallel to the aforementioned analyses for clause-final too described above:

- FI clauses such as (47) involve predicate movement of a specific type across the low FocP hosting the taboo element.
- The discourse-old constraint on post-predicate taboo elements arises because the predicate movement needed to derive this order is Topic movement:
  - The vP moves across the taboo element in the low FocP to a low-peripheral TopP immediately dominating FocP, consistent with the given predicate's information-structural status.

(49)  
Will he do it fuck!

See Jayaseelan (2001) and Belletti (2004) for extensive justification of these low-peripheral positions (and Benincà and Poletto 2004 on TopP > FocP order in particular).

\footnote{Such examples are deemed sharply ungrammatical among my consultants from elsewhere in the British Isles.}