

English inversions as constructional alloforms

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Abstract. This paper analyzes English inversion as an ‘alloform’ (Birner 2013) of both preposing and postposing. Birner 1996b analyzes inversion as subject to a negative constraint, disallowing new before old information. The need for this constraint vanishes, however, if inversion is viewed as being an alloform of preposing in cases where the preposed information is discourse-old, and an alloform of postposing in cases where the postposed information is discourse-new. Cases that satisfy both constraints are ambiguous between preposing and postposing, the infelicity of cases that satisfy neither constraint falls out automatically, and additional properties of inversion are readily explained.

Keywords. inversion; preposing; postposing; information structure; alloforms

In Birner 2013, I propose that certain sets of syntactic structures constitute ‘alloforms’ – i.e., contextually conditioned variants of a more abstract construction. In this paper I argue that English inversion is an alloform of both preposing and postposing, serving in any particular instance as a variant of one or the other but not both. Although this analysis counters my own previous work arguing that inversion is a distinct construction (Birner 1996b), we will see that under this new account the distribution of inversion in discourse falls out naturally from constraints already required for preposing and postposing, eliminating the need to posit an inversion-specific constraint.

As background, notice that English inversion and English long passives are subject to the same constraint (Birner 1996a, 1996b). Consider (1a), which contains two inversions (italicized), and (1b), which presents the canonical-word-order variants.

- (1) a. “We do get those from time to time, but they’re rare,” the taxidermist said. *Above his head hung a massive seagull with its beak open, and next to him, on a tabletop, lounged a pair of hedgehogs.*
[David Sedaris, *The New Yorker*, 10/22/12]
- b. [...] A massive seagull with its beak open hung above his head, and a pair of hedgehogs lounged next to him, on a tabletop.

In each of the inversions in (1a), some canonically postverbal constituent (*above his head* and *next to him, on a tabletop*) appears in preverbal position, while the canonical subject (*a massive seagull with its beak open* and *a pair of hedgehogs*) appears in postverbal position.

The italicized sentence in (2a) is a long passive (i.e., a passive containing a *by*-phrase), and (2b) gives the canonical variant.

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- (2) a. The Low Speed Chase was of Australian design, “a high-end racing boat, fast, a good boat,” said Andy Turpin, editor of *Latitude 38*, the sailing magazine in Sausalito. Boats like this would cost about \$200,000, he said. *The boat was owned by James Bradford, a 41-year-old San Francisco investor.*
[Carl Nolte, *San Francisco Chronicle*, 04/22/12, from the Corpus of Contemporary American English]
- b. [...] James Bradford, a 41-year-old San Francisco investor, owned the boat.

Again in (2a), a canonically postverbal constituent (*the boat*) appears preverbally, while the canonical subject appears postverbally, in the *by*-phrase.

In Birner 1996a I argue that English inversion requires its preposed constituent to represent information that is at least as familiar within the discourse (in the sense of Prince 1992) as that represented by the postposed constituent. In Birner 1996b I find the same result for long passives. That is, in both inversion and long passives, the preposed constituent (that is, the constituent noncanonically placed in preverbal position) is never newer than the postposed subject. Corpus studies of each construction show felicitous instances in which the preposed and postposed constituents are both discourse-old, and others in which they are both discourse-new, and, most often, instances in which the preposed constituent is discourse-old while the postposed constituent is discourse-new, as in (1a) and (2a), but no instances in which the preposed constituent is discourse-new while the postposed constituent is discourse-old. Therefore, inversion and passivization appear to be subject to the same discourse constraint.

Interestingly, the two are also in complementary distribution syntactically. That is, there is no syntactic context in which inversion and the corresponding passivization are equally permissible: Passivization applies to transitives, whereas inversion applies to intransitives and copular clauses. Thus, passivization and inversion provide distinct means for performing the same function in distinct syntactic contexts. Because the two structures serve the same argument-reversing function, and because the syntactic context determines which of the two is available, I argue in Birner 2013 that inversion and long passives constitute contextually conditioned alloforms of a single abstract argument-reversing construction.

In that same paper, I also consider two postposing constructions in Italian: presentational *ci*-sentences and subject postposing. Previous research (Berruto 1986, Ward 1999) has shown that the two constructions share a single discourse constraint, requiring the postverbal subject to represent discourse-new information (see also Calabrese 1992, Saccon 1993, Pinto 1994). Moreover, they are syntactically in complementary distribution, with presentational *ci* applying to copular sentences and subject postposing applying to non-copular sentences. Thus, I argue that here again we have a case of a single abstract construction manifesting itself as distinct contextually conditioned alloforms.

This places us in a position to reconsider the status of inversion in English. Recall that Birner 1996b argues that the function of inversion is to place relatively familiar information earlier in the clause than relatively unfamiliar information. In a corpus study of more than 1700 naturally occurring inversions, 78% placed discourse-old information in preposed position and discourse-new information in postposed position, while in the remaining 22% either both elements were discourse-old or both were discourse-new. Thus, the situation is as seen in Fig. 1:

	Postposed Discourse-old	Postposed Discourse-new
Preposed Discourse-old	OK	OK
Preposed Discourse-new	*	OK

Fig. 1: Distribution of English inversion

These four combinations are illustrated in the constructed discourses in (3-6). As expected, the only combination that is disallowed is the case of discourse-new information preceding discourse-old information (6).

- (3) There once was a house in the woods. *In this house lived three bears.* [DO-DN; i.e., discourse-old information precedes discourse-new information]
- (4) Three bears lived in a house in the woods. One day a little girl looking for porridge came up to the door and timidly opened it, then shrieked. *In the middle of the house stood the three bears.* [DO-DO]
- (5) *In a small house in a forest lived three bears.* [DN-DN]
- (6) Once upon a time there were three bears. *#In a small house in a forest lived the bears.* [DN-DO]

Thus, inversion does not consistently produce a given-before-new ordering; it also does not require that its preposed constituent be discourse-old or that its postposed constituent be discourse-new. Instead, it appears to be subject to a negative constraint, specifically disallowing discourse-new before discourse-old information.

This is an odd constraint, however, both from the standpoint of acquisition (requiring the learner to notice the absence of one of the four possible combinations) and from the standpoint of communicative function. It's clear why it might be useful to have a noncanonical construction whose function is to place familiar information before unfamiliar information, or to have a general prohibition on discourse-new information preceding discourse-old information throughout the language – but much less clear is the benefit of having a noncanonical means for reordering constituents of identical status. That is, it is unclear why inversion should be felicitous in cases where the preposed and postposed constituents are both discourse-old, or where both are discourse-new – i.e., where there is no obvious communicative benefit in reordering the elements. I propose instead that inversion is not distinct from preposing and postposing, but rather serves as an alloform of both of these constructions, much as a phonetic flap serves as an allophone of both /t/ and /d/ in English (e.g., as an allophone of /t/ in *latter* and as an allophone of /d/ in *ladder*).

Previous research shows that preposing in English requires the preposed constituent to be discourse-old (Ward 1988, Birner & Ward 1998), as shown in (7):

- (7) a. What sorts of people characteristically have such attitudes? And how might you and I cultivate the traits and outlooks that make for joy? *To these questions, we now turn.* [David G. Myers, *The Pursuit of Happiness*, HarperCollins, 1992, p. 104]

- b. [...] #To productive uses of leisure time, we now turn.

Where the preposed constituent represents discourse-old information, as in (7a), the preposing is felicitous; where it represents discourse-new information, as in (7b), the preposing is infelicitous.

On the other hand, postposing in English requires the postposed constituent to represent new information – specifically, in the case of presentational *there*-sentences, discourse-new information (Birner & Ward 1996). We see this in (8).

- (8) a. The old man was sitting in the corner by the demolished remains of the wedding cake, his arthritis-gnarled hands folded over his cane. He was wearing dark glasses. One bow had been mended with black electricians' tape. *Beside him there stood two empty bottles of beer and another that was half-full.* [DN]
[Stephen King, *The Dead Zone*, Penguin, 1980, accessed via Google Books]
- b. [...] #Beside him there sat the dark glasses. [DO]
- c. [...] Behind him there shone the sun. [DN]

In (8a) the postposed NP is discourse-new and the presentational is felicitous, whereas in (8b) the postposed NP is discourse-old and the presentational is infelicitous. Note that just as it is discourse-status and not hearer-status that is relevant for inversion, the same is true of presentational *there*-insertion. This can be seen in (8c), in which a postposed hearer-old constituent (*the sun*) is shown to be felicitous as long as it is discourse-new. Thus, the presentational requires only that the postposed constituent be discourse-new, regardless of its hearer-status.

Now, let us assume that inversion, as I propose, is sometimes an alloform of preposing and sometimes an alloform of postposing, and specifically of presentationals (as distinct from existentials, a distinct type of postposing which is sensitive to hearer- rather than discourse-status (Prince 1992, Birner & Ward 1998)). When a given inversion serves as an alloform of preposing, it will require its preposed constituent to be discourse-old. And when it serves as an alloform of postposing, it will require its postposed constituent to be discourse-new. Consider (9) and (10).

- (9) Ten o'clock the next morning found Mr. Marvel, unshaven, dirty, and travel-stained, sitting with the books beside him and his hands deep in his pockets, looking very weary, nervous, and uncomfortable, and inflating his cheeks at frequent intervals, on the bench outside a little inn on the outskirts of Port Stowe. *Beside him were the books*, but now they were tied with string.
[H.G. Wells, *The Invisible Man*]
- (10) The door shut with a faint whoosh. *Beyond a small vestibule with a place for coats and umbrellas lay a larger reception area paved in thick lilac pile.* Dark paneled walls hung with a few pious prints created an atmosphere of heavy Victorian mourning.
[S. Paretsky, *Burn Marks*, Delacorte Press, 1990, p. 247]

In (9), the preposed and postposed constituents are both discourse-old. This inversion, I argue, is an alloform of preposing, and it satisfies preposing's requirement that the preposed constituent be discourse-old. It cannot be a postposing, because it does not satisfy postposing's requirement that the postposed constituent be discourse-new. In (10), on the other hand, both constituents are discourse-new. This inversion is an alloform of postposing, and it satisfies the requirement that the postposed constituent be discourse-new. It cannot be a preposing, because it does not satisfy

preposing's requirement that the preposed constituent be discourse-old.

Now consider again the two inversions in (1a), repeated here as (11).

- (11) “We do get those from time to time, but they’re rare,” the taxidermist said. *Above his head hung a massive seagull with its beak open, and next to him, on a tabletop, lounged a pair of hedgehogs.*

In each of these inversions, the preposed constituent is discourse-old and the postposed constituent is discourse-new, and each is ambiguous between being a preposing and being a postposing, since it meets the discourse requirements for both constructions.

Under this account, the one context in which an inversion would be infelicitous is when neither constraint is satisfied – that is, when the preposed constituent is discourse-new and the postposed constituent is discourse-old, as in (12):

- (12) The taxidermist pointed to a seagull with its beak open. *#Above a massive desk hung the seagull.*

This inversion is not a felicitous preposing, because the preposed constituent is discourse-new; and it is not a felicitous postposing, because the postposed constituent is discourse-old. And as we’ve seen, this is exactly the combination of information statuses that never occurs in inversion. For felicity, an inversion must have either a discourse-old preposed constituent (satisfying the constraint on preposing) or a discourse-new postposed constituent (satisfying the constraint on postposing); thus, only those inversions in which the preposed constituent is discourse-new while the postposed constituent is discourse-old are disallowed.

Thus, the distribution of inversion in discourse falls out naturally from the independently attested constraints on preposing and postposing, with no additional inversion-specific constraint being required.

This account also explains another otherwise puzzling fact. As shown in Birner & Ward 1998, preposing and inversion share the property of generally requiring the presence of a salient open proposition for felicity. An open proposition, or OP, is a proposition in which one or more elements remains unspecified. Consider the examples in (13):

- (13) a. “I have permitted myself to be taken by surprise,” said the Beetle, “the only thing to do is to surprise them in return.” *And surprise them he did.*
[H.C. Andersen, *Hans Andersen’s Fairy Tales*]
- b. Thirty people were arrested and charged with 469 criminal counts. *Among those arrested were five men and an eighteen-year-old woman police alleged were behind the CIBC robbery.*
[S. Schneider, *Iced: The Story of Organized Crime in Canada*]

The preposing in (13a) is licensed by the salience of the open proposition ‘He {did/didn’t} surprise them’ in the context of the Beetle’s belief that the only thing to do was to surprise them in return. That is, mention of this belief makes salient the question of whether or not the Beetle did in fact surprise them; the preposing then provides the specification of this underspecified element. Similarly, in the inversion in (13b), the mention of people being arrested makes salient the question of who those people were, giving rise to the open proposition ‘X was among those arrested’; the inversion then specifies the identity of X.

When these OPs are not salient, infelicity results, as seen in (14):

(14) a. “I have permitted myself to be taken by surprise,” said the Beetle, “the only thing to do is to surprise them in return.” #*And throw them a party he did.*

b. Thirty people were having a pizza dinner when their meal was interrupted. #*Among those arrested were five men and an eighteen-year-old woman police alleged were behind the CIBC robbery.*

[=Birner & Ward 1998, ex. (302)]

In (14a), there is no salient OP to the effect that someone has thrown a party for someone else; similarly, in (14b) there is no salient OP to the effect that someone was arrested, and both are infelicitous.

In both constructions, however, this OP requirement is absent when the preposed constituent is locative (Birner & Ward 1998). Consider the examples in (15).

(15) a. In the VIP section of the commissary at 20th Century-Fox, the studio’s elite gather for lunch and gossip. The prized table is reserved for Mel Brooks, *and from it he dispenses advice, jokes and invitations to passers-by.*

[=Birner & Ward 1998, ex. (307a)]

b. We sit on his terrace alongside his pool, eating the meal served by Claudine. *Across the calm surface of the pool flies a hummingbird*, halting in midair and hovering, drinking from the water, then swiftly flying off.

[C. Potok, *The Gift of Asher Lev*, Alfred A. Knopf, New York, 1990, p. 287]

The proposition that Mel Brooks dispenses something from somewhere is not salient in the preposing in (15a), nor is the proposition that something flies somewhere in the inversion in (15b), yet both are felicitous. Thus, preposing and inversion share not only the requirement of a salient open proposition, but also the lifting of this requirement in the presence of a preposed locative constituent. This would be surprising under the assumption that the two are unrelated constructions. If, however, the inversions and preposings in (13) through (15) are alloforms of a single construction, it makes perfect sense that the two structures would share both the OP constraint and the conditions under which it is lifted.

This also accounts for certain distributional differences between inversion and the ‘PP+*there*’ structure (Birner 1997). Consider the examples in (16).

(16) a. The drunk was collapsed beside a metal Dumpster, his wine bottle beside him. His head lay on a blanket roll. *Beside him sat a green trash bag.*

[S. Coonts, *The Minotaur*]

b. The drunk was collapsed beside a metal Dumpster, his wine bottle beside him. His head lay on a blanket roll. *Beside him there sat a green trash bag.*

Example (16a) is an inversion. In (16b), the PP *beside him* is preposed, while the rest of the clause (*there sat a green trash bag*) is a postposing – specifically, a presentational *there*-sentence. Although the two look identical except for the presence or absence of the word *there*, (16a) is a single construction subject to a single constraint, whereas (16b) is a compound structure made up of two noncanonical constructions, and is subject to both constructions’ discourse constraints (Birner 1997).

Notice that in both examples in (16), *him* in the preposed PP is discourse-old, while the postposed *green trash bag* is discourse-new, and both examples are felicitous. However, when the two constituents have the same discourse-status, regardless of what that discourse-status is, PP+*there* is infelicitous, as in (17).

- (17) a. The drunk was collapsed beside a metal Dumpster, his wine bottle beside him. His head lay on a blanket roll. #*Beside him there sat the wine bottle.* [DO-DO]
- b. The drunk was collapsed beside a metal Dumpster, his wine bottle beside him. His head lay on a blanket roll. #*Beside a sandwich there stood two bottles of beer.* [DN-DN]

In (17a), both constituents are discourse-old, and in (17b) both constituents are discourse-new, and in both cases the utterance in question is infelicitous. This is to be expected if PP+*there* is composed of a preposing and a postposing; (17a) is infelicitous because the postposed constituent is discourse-old, while (17b) is infelicitous because the preposed constituent is discourse-new.

Inversion, on the other hand, allows both constituents to have the same discourse-status, as seen above in (9)-(10), repeated here as (18)-(19).

- (18) Ten o'clock the next morning found Mr. Marvel, unshaven, dirty, and travel-stained, sitting with the books beside him and his hands deep in his pockets, looking very weary, nervous, and uncomfortable, and inflating his cheeks at frequent intervals, on the bench outside a little inn on the outskirts of Port Stowe. *Beside him were the books*, but now they were tied with string. [DO-DO]
- (19) The door shut with a faint whoosh. *Beyond a small vestibule with a place for coats and umbrellas lay a larger reception area paved in thick lilac pile.* Dark paneled walls hung with a few pious prints created an atmosphere of heavy Victorian mourning. [DN-DN]

In (18), both constituents are discourse-old, and the inversion is felicitous; in (19), both are discourse-new, and this inversion too is felicitous. The reason for this difference in distribution between inversion and PP+*there* falls out naturally from the proposed account. PP+*there* combines a preposing and a postposing, and their functional constraints apply compositionally (Birner, Kaplan & Ward 2007); therefore, the constraints on both constructions must be met. Thus, in a felicitous instance of PP+*there*, the preposed constituent must be discourse-old, and the postposed constituent must be discourse-new, and it follows that the two constituents can never have the same discourse-status.

The situation with inversion is different. An inversion in which both noncanonically positioned constituents are discourse-old is an alloform of preposing. It cannot be a postposing, since postposing disallows postposed discourse-old information; but preposing places no constraints on the postposed constituent. Similarly, an inversion in which both constituents are discourse-new is an alloform of postposing. It cannot be a preposing, since preposing disallows preposed discourse-new information; but postposing places no constraints on the preposed constituent.

In short, because a given token of inversion serves as either a preposing or a postposing (but not both), it need only meet the constraint of that one construction, whereas PP+*there* is an instance of both constructions simultaneously, and therefore must satisfy both constraints. Thus, the existence of inversion as an alloform of both preposing and postposing accounts for all of the distributional data while allowing these noncanonical structures to preserve a given-before-new ordering of information in a maximally efficient way, without the need to posit an additional construction with an additional constraint on its use.

Now, if inversion and long passives are alloforms of a single construction, and inversion is also an alloform of either preposing or postposing in any given instance, then we would expect the long passive to be an alloform of either preposing or postposing as well. There is evidence to

suggest that this is correct. Notice that not only are inversion and passivization in complementary distribution, but passivization and presentationals are in complementary distribution as well: Passivization applies to transitives, while presentational postposing applies to intransitives, as seen in (20)-(21).

(20) a. John threw a ball.

b. A ball was thrown by John.

c. #There threw John a ball.

(21) a. A woman sat in a field.

b. #In a field was sat by a woman.

c. There sat a woman in a field.

The question that arises is why inversion and presentationals should not also be in complementary distribution. In fact, in most contexts they are, and we find here a nearly complete case of three-way complementary distribution: Inversion, but neither presentationals nor passives, may occur with main-verb *be*; passivization, but neither inversion nor presentationals, may occur with a transitive verb; and either inversion or presentationals, but not passivization, may occur with intransitive non-copular verbs – the latter being the only case in the paradigm that allows free variation.

This account has the advantage of unifying four English structures that are sensitive to discourse-status – inversion, passivization, preposing, and presentational postposing – and it supports a compositional analysis of the discourse functions associated with constructions. It is also broadly consistent with Construction Grammar (Fillmore, Kay, & O’Connor 1988; Goldberg 1995; Kay 1997; Croft 2001; Boas & Sag 2012, inter alia), in the sense that a construction is viewed as a form-function pairing. It provides evidence for a more abstract level of pragmatically-defined construction, in the spirit of Prince’s (1996) ‘Construction-Templates’, which, she says, “may be mapped onto one syntactic form in one language and to another syntactic form in another language or onto more than one syntactic form in a single language.” For Prince, each realization of the template is associated with a discourse function and constitutes a construction; I have instead argued that the more abstract structure (Prince’s construction-template) is itself the construction and is associated with a discourse function, which is then shared by its alloforms. A number of puzzles can be solved by considering inversion to be an alloform of both preposing and postposing, including:

- its distribution in discourse,
- the fact that it shares both preposing’s requirement of a salient OP and the conditions under which this requirement is lifted, and
- the distributional differences between inversion and PP+*there*.

In short, the existence of syntactic alloforms makes possible a new account of English inversion as an allophone of two distinct constructions, subject to distinct discourse constraints, which together account for its unique distribution without requiring recourse to an additional inversion-specific constraint.

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