On Subject-Auxiliary Inversion and the notion “purely formal generalization”

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Abstract

English Subject-Auxiliary Inversion (SAI, hereafter) has been considered by many linguists to be a prime example of a formal generalization that does not allow a characterization in functional or semantic terms. However, Adele Goldberg’s target article argues that the internal syntactic form of SAI can indeed be characterized in such terms. We provide a considerable amount of evidence that Goldberg is unsuccessful in her attempt to mount a counter-challenge to the idea that SAI represents a significant purely formal generalization in the grammar of English.

Keywords: auxiliary; construction; formal generalization; polarity; prototype; subject; Subject-Auxiliary Inversion.

Adele Goldberg’s target article (NGL, hereafter), in keeping with her book Constructions at Work (CW, hereafter), proposes and defends a version of construction grammar in which purely formal generalizations, that is generalizations about morphosyntactic patterning formulated independently of their associated semantic or pragmatic interpretations, play a minimal role. Goldberg does not reject the idea that such generalizations might exist, but states that “it is hard to find convincing cases” of

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them (NGL, 19) (see also CW; 167, 228). A centerpiece of her argument is a reconsideration of Subject-Auxiliary Inversion in English (SAI), which is discussed in detail in CW, and given a brief summary in NGL. SAI has been offered as a prime example of a pervasive language-particular formal generalization (see Fillmore 1999; Green 1985; Newmeyer 1998). As Goldberg notes, due to the apparent fact that one formal structure appears to be associated with a disparate set of meanings, “SAI therefore provides a strong challenge to the idea that formal patterns are generally associated with and motivated by functions” (CW, 167). However, she claims to have met the challenge with an account of SAI in which “the particular internal syntactic form of SAI is motivated by appeal to its semantic/pragmatic function” (CW, 167). In this commentary, we reassert the challenge by arguing that Goldberg has not succeeded in providing an adequate function-based account of SAI.

Goldberg’s analysis of SAI centers around the claim that all uses of SAI are associated with deviations from the prototypical sentence form, “…the prototypical sentence being a declarative, positive assertion with predicate-focus information structure. Another feature of prototypical sentences is that they may stand alone and they are not dependent on another clause” (CW, 168).1 Table 1 illustrates some putative properties of non-prototypical sentences along with the nine examples of SAI discussed by Goldberg and an illustration of the degree to which they exhibit these properties.

Goldberg’s concrete claim can be summarized as follows: For (almost) any formal structure there is a set of semantic and/or pragmatic properties that all the manifestations of that structure have some subset of. This idea, as it turns out, does not preclude other structures from also having a subset of these properties (for example, if-clauses are non-assertive and dependent and unless clauses are negative as well). Such a claim, in our view, is a very weak one, since it excludes so few possibilities governing the interaction of form and content and admits so many. In fact, only a

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1. Unfortunately, Goldberg does not tell us why sentences with the set of properties enumerated in the above quote should be called “prototypical”. Virtually all formal approaches would take declarative positive assertions as some sense “basic” or “canonical”—that is true—but that decision is based more on descriptive simplicity than on any other criterion. One would assume that such a criterion would not be open to Goldberg, given her theoretical orientation. In some sections of CW (e.g., 79–90), Goldberg seems to correlate prototypicality with token frequency, but, in fact, a central subset of her PS form—SVO sentences with full arguments in both positions—are known to be quite unusual in actual discourse (see Du Bois 1987 and much subsequent work). This point is worth stressing, because Goldberg takes PS’s, as she defines them, to be a “natural” construction type. That may not be the case.
tiny percentage of non-PS’s ever show SAI. Some examples of non-PS without SAI are listed in (1a–e):

(1) Examples of non-prototypical sentences without SAI:

a. Structures that are not declaratives that do not have SAI: Positive imperatives, echo and other in situ questions, greetings, promises, warnings.

b. Structures that are not positive assertions that do not have SAI: Presuppositions, if-clauses, ordinary clausal and phrasal negation, parentheticals.

c. Structures that do not manifest predicate focus information structure that do not have SAI: Topicalized NP’s that are discourse focuses, “in situ” focus encoded by contrastive stress.

d. Structures that cannot “stand alone” that do not have SAI: Any main clause containing a verb that obligatorily takes a complement.

2. Despite Goldberg’s classification, is not clear that the SAI clause itself is negative (and hence non-prototypical) when there is an initial negative adverb. In fact there seems no more reason to assume that it is negative than there is to assume that the VP is negative in an example like Nobody knows the answer.

3. In the analysis of Huddleston and Pullum (2002), Boy did she go! is not an exclamative, but rather a clause of interrogative form used to express an exclamatory statement. True exclamatives like What a fool I’ve been! and How I longed to see her again! do not exhibit SAI.
e. Structures that are dependent on another clause that do not have SAI: The vast majority of subordinate and relative clauses.

In other words, the claim that “[t]he majority of constructions that license SAI have at least two features of non-prototypical sentences” (CW, 176), even if true, does not seem to be particularly compelling, since the majority of constructions that have at least two features of non-prototypical sentences do not license SAI. In fact, as we illustrate below, the appeal to non-prototypicality plays no role in the most explicit descriptively adequate analysis of SAI, namely that of Fillmore (1999), and there seems to be no useful role that it could play.4

Furthermore, there are instances of SAI not discussed in CW and NGL that seem to occur in PS’s. The following sentences (from Green 1985; and Green and Morgan 1996), all taken from attested sources, show SAI occurring with positive adverbs (2a–b), deictics (2c–d), and anaphoric fillers (2e).5 All are PS’s by G’s definition:

(2) a. Particularly did she commend its descriptions of some of those Italian places.

b. Many a moonlit night have I murmured it to the nightingales . . .

c. Thus did the hen reward Beecher.

d. Thus did Illinios hammer Indiana a third straight time.

e. Thus does Mr. Barton begin his chosen story: “In the pre-prohibition days two young men . . .”

In sum, the correlation between the possibility of SAI and the notion “non-prototypical sentence type” is not robust enough to motivate a natural link between the two. Hence, we cannot endorse Goldberg’s essential idea that SAI is a “motivated” structure in her sense of the term, in which

4. In general terms, we find rather odd the idea that what the various uses of SAI have in common is that they are non-prototypical sentence types. What bats, whales, and platypuses have in common is that they are non-prototypical mammals, but nothing of interest seems to follow from that. Along the same lines, Trabants, Rolls Royces, and Stanley Steamers are all non-prototypical cars, but no analysis of automotive transportation would be likely to embody that generalization. The mere non-prototypicality of a group of entities does not appear to function as a “natural class” in other domains of investigation, and so we would be surprised to find it acting as one in syntactic analysis.

5. (2a) and (2e) are from Dorothy Parker, (2b) from Dorothy Sayers, (2c) from Oliver Wendell Holmes, and (2d) from the sports pages of the Champaign-Urbana News-Gazette (for page references, see Green and Morgan 1996: 49–50). These are all “literary” uses of SAI, to be sure, but no more so than most of the uses enumerated in Table 1.
there is some functionally or historically “natural” (CW, 217) reason that it should exist as a construction in English.6

We found that our full understanding of the treatment of SAI in CW and NGL was hampered by the fact that nowhere does Goldberg specify precisely what it takes to be a “subject” and an “auxiliary” in her theory. She rejects the strong notional definition of relations and categories developed in Langacker 1987,7 but she does not tell us what her alternative is. In fact, the evidence is overwhelming that neither subjects nor auxiliaries can be defined semantically or functionally (see Culicover and Jackendoff 2005: ch. 6; Francis 1998; Newmeyer 2003 on grammatical relations; and Pullum and Wilson 1977 and Steele 1981 on auxiliaries). Hence the generalization about the internal structure of SAI would seem to be a formal one and ipso facto support the need for purely formal generalizations. As far as the formal idiosyncrasies that all instances of SAI share, Newmeyer (1998: 48) drew attention to the restriction of only one auxiliary element to inverted position:

(3) a. *Have been you working late?
   b. *What have been you eating?
   c. *Under no circumstances, will be I taking a leave of absence.
   d. *Had been I thinking about the dangers, I never would have done that.
   e. *So competent has been Mary, she will surely get the promotion.

Goldberg writes that there is nothing idiosyncratic here at all, since “[o]nly the first auxiliary serves to indicate polarity of a sentence” (CW, 180). Hence, in her view, the possibility of fronting only one auxiliary can be assimilated to the fact that broad-scope negation (indicating the polarity of the entire sentence) can appear only after the first auxiliary:

(4) a. You couldn’t have been working late. (broad scope)
   b. You could have been not working late. (not broad scope)
   c. You could have been not working late. (not broad scope)

6. The history of SAI does not bear out the claim that there is anything “natural” about it, in the sense that we understand the term “natural”. Inversion contexts and interpretations have varied over the centuries to the extent that it has been argued that “the original function of inversion after negatives may be only marginally related to its later use” (Nevalainen 1997: 203).

7. Goldberg rejects “essentialist” definitions of grammatical entities because “independent evidence for them . . . is so far lacking” and because “essentialist definitions of non-linguistic categories are the exception not the norm” (CW, 223).
The notion “polarity” makes some sense with respect to negatives and questions, but is simply inapplicable to the majority of constructions in which we find SAI. Hence Goldberg’s explanation fails to account for the ungrammaticality of (3d–e). It is not clear how (3a–c) are accounted for either, for that matter. After all, have been and will be are coherent semantic units of aspect and could quite well (if fronted) mark the polarity of these sentences. In other words, we need to question Goldberg’s conclusion that:

[the . . . restriction to the first auxiliary [is] explained by attention to the functions that SAI conveys. In contrast, a purely syntactic account of the phenomenon can only stipulate the form of SAI—that subject and first auxiliary are inverted—without making any further predictions or generalizations. (CW, 181–182; emphasis added)]

And even if it were true that there is a functional explanation for the shape of SAI structures, the formal generalization would still exist and need a grammatical characterization (for the compatibility of formal analysis and functional explanation, see Newmeyer 1998: Ch. 3).

Returning to the distribution of SAI, Goldberg notes (correctly, and contrary to the claim made in Newmeyer 1998) that we do find SAI in certain embedded clauses:

(5) a. They knew that had they left on time, she’d be here by now.
   b. She reflected to herself that never had she seen such a beautiful sight.
   c. Junie B. knew that boy, was she in trouble.

But according to Goldberg, all embedded clauses are necessarily non-prototypical, since, by definition, they are dependent on another clause.

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8. Paul Kay has pointed out to us (p.c.) that Goldberg’s account seems to predict that SAI should front nonfinite auxiliaries as well as finite ones, which it does not:

   (i) the kids having been put to bed . . .
   (ii) *having the kids been put to bed . . .

9. We were quite surprised that Goldberg would write of “predictions” here, since CW states several times that the theory motivates the existence of particular structures, but does not predict their existence (see 219, for example). According to Goldberg, “Motivation is distinct from prediction: recognizing the motivation for a construction does not entail that the construction must exist in that language or in any language. It simply explains why the construction ‘makes sense’ or is natural” (CW, 217; emphasis in original).
So she has no account of why SAI in general does not apply in embedded clauses. The following generalization that she puts forward, curiously one of the few bold-faced passages in CW, does not help to clarify matters:

(Only) SAI’s that are restricted to conveying particular speech acts are restricted to main clauses, or to subordinate clauses that convey speech acts. (CW, 181)

We confess that we have not successfully parsed the above clause. The parenthetical only, the extension of particular, and what the antecedent clause to the disjunction might be are far from clear. And we have no idea what she means by “speech act”. What is the “speech act” in the embedded clause of (5a), for example?

Goldberg draws an analogy between her observations about SAI and the prototype-link analysis of words like home (CW, 169; for detailed discussion, see Fillmore 1992) and baby (CW, 169–170). What makes such an analysis of these lexical items of interest is that the derivative senses are either actually present in the basic meaning of the prototype or derivable from it by slight metaphorical extensions. But the prototype of the “non-prototypical sentence”, as defined in CW, does not even exist as a specific formal category in English (or, we suspect, in any other language in the world). And the links between this nonexistent form and the specific uses of SAI, rather than being based on broad and natural metaphorical extensions, simply call into play a small and random subset of the dozens of specific properties that would have to be attributed to non-PS’s.

Let us now turn to G’s diagrams of the SAI constructions, presented in CW on pages 177 and 179 in two different forms, but not repeated here for considerations of space. We feel that these diagrams are both needlessly complex and shed no light on the nature of SAI. As we understand Goldberg’s position, the canonical (and non-existing) formal SAI pattern is associated with the semantic-functional notion “non-prototypical sentence”. Y/N questions, exclamatives, sentences with negative adverbs, and so on inherit the formal pattern and a proper subset of the semantic-functional properties associated with non-prototypicality.

It is certainly the case that within a construction-based approach it is necessary to recognize a number of SAI constructions, each with its own semantic-functional properties. Since all of these constructions have the same auxiliary-initial structure, a grammar which stipulated the same structure for each would obviously miss a generalization. Redundancy can be avoided by analyzing the constructions as subtypes of a general SAI construction and stipulating that this general construction has the auxiliary-initial structure. Such is essentially the approach developed in Fillmore (1999) and represented schematically in (6):
What would follow for such an analysis if one accepted Goldberg’s observation that the various SAI constructions have some subset of the properties that she considers to be non-prototypical? As far as we can see, nothing. The only way to incorporate this observation into an analysis would be to assume default inheritance, associating the set of non-prototypical properties with the general SAI construction and stipulating for each of the subtypes which of these properties it does not have. But surely that would be a pointless complication of the kind of analysis that Fillmore proposes. Of course, it would be doubly pointless if we are right that there are cases of SAI which do not have any of the non-prototypical properties.

In conclusion, we feel that Goldberg has been unsuccessful in her attempt to mount a counter-challenge to the idea that SAI represents a significant purely formal generalization in the grammar of English.10

References

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10. For a complementary critique of Goldberg’s analysis of SAI (specifically, the account presented in Goldberg and Del Giudice 2005), see Jackendo¨f (2007). He writes:

[Goldberg and Del Giudice] do not explain why SAI is obligatory in some of these constructions but not in others, or why in standard English it does not occur in indirect questions. They do not explain why yes-no exclamatives invert but wh-exclamatives in modern English do not . . . They also do not explain why there are two other constructions in English used to express non-topical subjects: there-insertion and locative inversion . . . and why SAI can’t be used instead of the latter . . . (ms., p. 18)
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