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Author(s)	Tokunaga, Kazuhiro
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On the Discourse Functions of Inversion Constructions Introduced by *as*, *than*, *neither*, and *so**

Kazuhiro TOKUNAGA

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1. Introduction

This study examines four types of subject auxiliary inversion (SAI) constructions with *as*, comparative clauses, *neither*, and *so* in order to clarify the differences in these discourse functions. For convenience, these constructions are referred to as SAI_*as*, SAI_CC, NIC, and SIC, respectively. The cases in (1) are called optional inversion, and the cases in (2) obligatory inversion.

- (1) a. Sandy has been very angry, as has Leslie. [SAI_*as*].
(Adapted from Culicover 2013: 106)
- b. I spend more than do my friends. [SAI_*than*] (Quirk et al. 1985: 1382)
- (2) a. Obama was never vetted by these gatekeepers, and neither was Biden.
[NIC] (COCA: blog)
- b. Gail's in, and so is Lisa. [SIC] (Biber et al. 1999: 917)

So far, these SAIs have been mainly characterized by a single-sentence-based. Consider SIC and SAI_*than*, for example. With regard to SIC, the following features have been pointed out: (i) it can be replaced by a sentence using *too*, and the inverted subject receives end focus (Biber et al. 1999); (ii) SIC is restricted to a positive clause, and the construction cannot be used when SIC has the same subject as the main clause (Huddleston and Pullum 2002; Duffley 2016).

SAI_*than* is not preferred when it has a personal pronoun subject, unlike other inversion constructions. Compare (3) and (4).

- (3) ??Anna is taller than was SHE. (Quirk et al. 1985: 1382)
- (4) a. The soldier wanted to protect his people, and so did we. (COCA: news)
 b. She can't afford a meal on Seventh Avenue anymore, and neither can he. (COCA: fiction)
 c. I was heartbroken, as was she.
 (Otake 2016: 194; underlining in the original)

The purpose of this paper is to consider the differences in the behavior of these four types of SAI constructions by utilizing discourse analysis in place of single-sentence-based analysis, and including the preceding and subsequent context. Although the latter analysis can capture the invariable features mentioned above, it cannot explain the difference in acceptability between (3) and (4). In addition, the single-sentence-based does not make a clear distinction between the inversions in (4). Given these limitations, this study analyzes the SAIs collected from two large corpora by adapting Givón's (2018) framework. In conclusion, I argue that there are two types of SAI constructions: one is motivated by a discourse function of introducing an inverted subject as a topic of the subsequent context, and the other is not. The former type tends to postpone less informative personal pronouns, while the latter does not. I also show that the former has a similar function to Lambrecht's (1994) "topic-promoting construction."

This paper is structured as follows: Section 2 provides an overview of previous studies that conduct analysis beyond a sentence unit. Section 3 describes the analytical procedure adopted in this study. Section 4 looks at the results of the analysis of each SAI construction and argues that SAI_*as* and SIC have a discourse function of introducing the inverted subject into the subsequent context as a topic entity. Section 5 confirms that such SAI constructions have a common function with Lambrecht's (1994) "topic-promoting construction" and Section 6 concludes.

2. Previous studies: *So*-inversion construction and SAI in *as*-clauses

Otake (2016) analyzes SIC beyond the single-sentence level to clarify its discourse function. According to Otake (2016: 184), SIC in (5) serves to connect

the preceding sentence with SIC by substituting the content of the preceding context (*heard of him*) to represent the uniformity of information in both sentences. In addition, Otake (2016: 184) states that an inverted subject is focused (i.e. end focus), which carries a high information value and is strongly conveyed.

- (5) “I assume you know Stephen Byerley, Dr. Lanning.” “I have heard of him. So have many people.” “Yes, so have I. Perhaps you intend voting for him at the next election.”

(Otake 2016: 184; underlining in the original)

This analysis captures the relationship between SIC and the preceding context, paying attention to the function of *so*, but how the clause-final subject is treated in the subsequent discourse is beyond the scope of the analysis (this will be discussed in Section 4).

Otake (2016) also analyzes SAI_*as* from the same perspective. Regarding the *as*-clause in (6), Otake (2016: 193) states that SAI_*as* is a construction that “moves the subject to the clause-final position and connects the clause with the main clause.” According to Otake (2016:193-194), in (6a), after the subject *I* is referred to in the main clause, the subject *she* in SAI_*as* is presented as supplementary information that *she* in the *as*-clause is in the same state as the subject *I* in the main clause. The same explanation is provided in (6b, c).

- (6) a. I was heartbroken, as was she.
 b. After nine days in jail, Mr. Sirkar was deported, as were hundreds of other workers.
 c. In 2013, 71 percent of black children in America were born to unwed mothers, as were 53 percent of Hispanic children and 36 percent of white children.

(*ibid.*: 193; underlining in the original)

Otake (2016: 194-195) concludes that the storyline is not usually newly created in a way that the information represented in the *as*-clause becomes the topic of the subsequent discourse. However, this characterization is far from sufficient because as we will see in Section 4, we can observe a tendency for SAI_*as* to in-

roduce the inverted subject as a topic element of the subsequent context.

3. Methods

3.1 Corpora

In this study, two corpora in (7) were used to extract the following chains: (i) “*as, and neither, so* + auxiliary verb + subject” and (ii) “*than, as...as* + auxiliary verb + subject.” The subject form is limited to proper nouns and personal pronouns. For the former, they are limited to one-word proper nouns to minimize the effect of end weight (e.g., *John*) (see also Tokunaga 2019).¹⁾ For the latter, they are investigated to compare the cases with proper noun subjects.

- (7) a. COCA on the WWW (over 1 billion words)
- b. COCA full text file (440 million words)²⁾

As for the processing procedure, the data of the SAIs discussed in this study were extracted from (7b) by genre (Academic, Fiction, Magazine, News, Spoken). Then, 50 examples were selected by stratified random sampling after omitting spurious matches.³⁾ Next, (7a) was used to check a broader context, including the preceding and subsequent contexts. As for the cases with NIC, only (7a) was used, and the data extracted from seven genres (Academic, Blog, Fiction, Magazine, News, Spoken, Web page).⁴⁾

3.2 The Framework for the analysis of preceding and subsequent contexts

This study adopts Givón’s (2018) framework based on the notions of “anaphoric distance” (AD) and “cataphoric persistence” (CP). The former is a method to see how many clauses can be traced back to the last clause in which an element appears in the preceding discourse, while the latter is the opposite of the former. As shown in (8) and (9), AD is related to the accessibility of a referent, while CP is related to the importance of a referent in a discourse.

- (8) Anaphoric: the referent’s accessibility, measured heuristically in text as the **anaphoric distance** (AD) between the current occurrence of a referent and its nearest previous occurrence. Presumably, such a heuristic measure cor-

relates with the referent's **cognitive accessibility** in either current attention, working memory or episodic memory.

(Givón 2018: 61; emphasis in the original)

- (9) Cataphoric: the referent's importance, measured heuristically as the **cataphoric persistence** (CP) of the referent in the 10 clauses subsequent to its current occurrence. Presumably, such a text-based heuristic measure correlates with the referent's **importance**, thus **attentional activation** or **cognitive anticipation**. (*ibid.*; emphasis in the original).

Givón (1983, 2017, 2018) suggests the following methods for counting AD and CP.

(10) Methods for measuring AD and CP

- a. AD: AD1 if a referent appears in the immediately preceding clause; AD2/3 if a referent is realized from two to three clauses away; AD>3 if more than three clauses (Givón 2018).
- b. CP
 - (i) Counting how many referents are realized in a subsequent context (Givón 2017).
 - (ii) Counting the number of clauses that include a referent realized consecutively in a subsequent context (Givón 1983).

However, since these methods are not designed for investigating SAIs, some modifications are necessary. For example, CP is limited to five clauses in this study because if we look too deeply into a subsequent context, we will not be able to clarify how much SAI is affected. With this in mind, the modified methods in (11) are employed here.

(11) Methods for measuring AD and CP (modified version)

- a. AD: The range of AD is up to the preceding five clauses. AD1, AD2/3, and AD>3 are the same as in Givón (2018), but AD1 is compared with the others.
- b. CP: (10bii) is adopted. The range of CP is up to five subsequent clauses. If a referent occurs in the immediately subsequent clause, it is CP1; if a referent is realized in two or more consecutive subse-

quent clauses, it is CP2; and if there are no elements in the subsequent context, CP0. As in AD, CP0 is compared to the others.

3.3 Classification of referential expressions referring to a subject in SAI constructions

To measure the aforementioned AD and CP, this study categorizes the types of elements referring to a postposed subject in the four SAI constructions in question, based on Givón's (2018: 124) topicality ranking of grammatical roles.

(12) Topicality ranking of grammatical roles

Subject > Object > Others

(Adapted from Givón 2018: 124)

However, (12) cannot correctly analyze the following example.

(13) [...], and so have we. Today, 77% of us own at least one outdoor grill (41% own two), and we bought close to 11.4 million new grills last year.

(COCA: magazine; underlining mine)

If the criterion in (12) is applied, the underlined *us* in (13) is judged as oblique and thus becomes Others. However, *77% of us* can also be considered as the subject. Therefore, in this study, even if an element referring to a subject in SAIs is Others, as in (13), the element is recognized as a subject or object (i.e., highly topical elements in (12)) when it functions as a subject or an object in the whole noun phrase.

4. Trends of AD and CP and characteristics of each SAI Construction

4.1 So-inversion construction

Tables 1 and 2 summarize the distributions of AD and CP for SIC for each subject type. In these tables, AD1 indicates the case where an element referring to a subject in SIC appears in the immediately preceding clause, and AD>1 shows where such an element is realized within more than two to three clauses away from SIC. In this paper, if a case is categorized into AD1, the subject in SIC is regarded as more topical in discourse than AD>1.⁵⁾ CP≥1 indicates the case where an element referring to a subject in SIC is realized in the immediately

subsequent clause, or in two or more consecutively, and CP0 the case where such an element is not, including the immediate one.⁶⁾ In the same way as AD1, if a case is classified into CP $\geq$ 1, the subject in SIC is taken as more topical in discourse than in CP0 (in these tables, “Pro” stands for “proper noun subject” and “Prn” for “personal pronoun subjects”).⁷⁾

Table 1 Distribution of AD and CP classified by subject type (SIC)

	[1] AD1/CP0	[2] AD1/CP $\geq$ 1	[3] AD>1/CP0	[4] AD>1/CP $\geq$ 1	Total
Pro.	0 (0%)	0 (0%)	36 (72%)	14 (28%)	50 (100%)
Prn.	3 (6%)	2 (4%)	21 (42%)	24 (48%)	50 (100%)

(Fisher's Exact Test: $p = .004 < .05$. Effect size: medium (Cramer's $V = 0.35$))

First, let us examine the cases of SIC with proper noun subjects (SIC_Pro). In [1] and [2] of “Pro,” there are no cases of AD1, which means there is no entity referring to the subject in SIC immediately before or after SIC. Moreover, the ratio of CP0 (72% ([1]+[3] of “Pro”)) is higher than that of CP $\geq$ 1 (28% ([2]+[4] of “Pro”)). In other words, in the cases of SIC_Pro, the entities referring to the postposed subjects tend not to occur immediately before or after SIC. It follows that proper noun subjects in SIC tend to be recognized as a less important entity in the preceding and subsequent contexts. This means that they are treated as supplementary information.

In contrast, in SIC with personal pronoun subjects (SIC_Prn), there are a few examples of AD1, such as [1] in “Prn.” In this case, the ratio of CP $\geq$ 1 (52% ([2]+[4] of “Prn”)) is higher than that of CP0 (48% ([1]+[3] of “Prn”). Particularly important here is [4] in “Prn,” where the ratio of [4] (48%) is higher than that of “Pro” (28%). This suggests that SIC_Prn is used to introduce a future topical entity, which is not realized in the immediate preceding discourse, into the subsequent discourse. In other words, personal pronoun subjects in SIC tend to be recognized as an important element in discourse, not as supplementary information, because they are mentioned in the subsequent context.⁸⁾

Next, let us look at the types of entities introduced by SIC into the subsequent context. In Table 2, one single representation (e.g., S) is a case in which only one element referring to a postposed subject in SIC occurs in only the im-

mediate subsequent clause. Another representation connected by an arrow (e.g., $S \rightarrow S$) is a case where such an entity realizes consecutively until CP2). As Table 2 shows, in all cases, the most frequent entity is subject (the most highly topical element in (12)) (in Table 2, “S,” “O,” and “Oth” denote the realization of “Subject,” “Object,” and “Others,” respectively).

Table 2 Entity types referring to a subject of SIC (excluding the examples of AD1⁹⁾)

	S	S→S	S→O	S→Oth	O	Oth→S	Oth→O	Oth→Oth	Oth	Total
Pro.	7	4	1	0	1	0	0	0	1	14
Prn.	8	9	0	2	0	1	1	2	1	24

Examples are provided in (14) and (15) (the numbers in the examples are the number of clauses in the preceding and subsequent contexts, with the preceding one marked with “-”).

(14) AD>1/CP≥1 (clauses, where no entity referring to a subject in SIC is found, are omitted)

[-1] [...], and so did Step. [1] Actually, **Step** had two carers, [2] so while **he** [= Step] hated working with some of those strange people at Eight Bits Inc. Bits Inc., [3] **he** [= Step] had the relief of Sundays, a chance to talk to people who understood the way [4] **he** saw the world, [...]. [5] For **Step**, [...].

(COCA: fiction; emphasis added and underlining mine)

(15) AD>1/CP≥1

[...] [-2] **he** [=Mr. Joumaa] said. [-1] “People are angry with Fatah and its performance, and so am I [=Mr. Joumaa]. [-1] I’m one of the angry members of Fatah. [2] But **we** express **our** anger inside. [3] **We** face a bigger challenge now from Hamas, and in a difficult situation [4] **we** <S> stand together.”¹⁰⁾

(COCA: news; emphasis added and underlining mine)

Based on Tables 1 and 2, we can see that SIC is used in an environment where the subject in the construction is not considered important in the preceding context, namely AD>1, but the subject in SIC tends to be introduced as the most highly topical entity (i.e., subject) in the subsequent discourse. This tendency is

particularly strong in the case of personal pronominal subjects, suggesting that in addition to presenting supplementary information, SIC has the discourse function of introducing a new subject (in the sense of being different from the main clause) into the subsequent context. This implies that the discourse function can be considered a motivating factor for the use of SIC. Bearing this in mind, the following subsections examine whether other SAI constructions have the same “topic-introducing function.”

4.2 SAI in *as*-clauses

Table 3 summarizes the distribution of AD and CP classified by each subject type.

Table 3 Distribution of AD and CP classified by subject type (SAI_*as*)

	[1] AD1/CP0	[2] AD1/CP≥1	[3] AD>1/CP0	[4] AD>1/CP≥1	Total
Pro.	0 (0%)	0 (0%)	36 (72%)	14 (28%)	50 (100%)
Prn.	1 (2%)	3 (6%)	26 (52%)	20 (40%)	50 (100%)

(Fisher’s Exact Test: $p = .04 < .05$. Effect size: small (Cramer’s $V = 0.25$))

The distribution of SAI_*as* is similar to that of SIC. In [1] and [2] in “Pro,” there are no data on AD1. In addition, the ratio of CP0 (72% ([1]+[3] of “Pro”)) is larger than that of CP≥1 (28% ([2]+[4] of “Pro”)). Given this distribution, we can confirm that just like SIC, SAI_*as* with “Pro” has a tendency that the postposed subject is not likely to occur in the immediately preceding or subsequent contexts. In addition, given the fact that CP0 in “Pro” accounts for about 70% of the data, the proper noun subject in SAI_*as* tends not to be recognized as an important entity in discourse (i.e., additional information as noted by Otake (2016)). By contrast, in the cases of SAI_*as* with “Prn,” although the ratio of “Prn” does not outnumber that of “Pro” as observed in SIC above, the ratio of CP≥1 (46% ([2]+[4] of “Prn”)) increases to around 50% of the total. It follows from this tendency that personal pronoun subjects in SAI_*as* are more likely to be recognized as an important entity in the subsequent context.¹¹⁾ In addition, in [4], where a subject in SAI_*as* is not realized in the immediately preceding clause, the ratio of CP≥1 of “Prn” (40%) is higher than that of “Pro” (28%). This

suggests that *SAI_as* takes up a non-topical element and makes it easier to be introduced into the subsequent context as a topical element.

The entities introduced in the subsequent discourse also have many parallels with the SIC. Table 4 shows the distribution of entity types realized in the subsequent context of *SAI_as*.

Table 4 Entity types referring to a subject of *SAI_as* (excluding the examples of AD1)

	S	S→S	S→O	S→Oth	O	Oth→S	Oth→O	Oth→Oth	Oth	Total
Pro.	3	4	0	1	0	0	1	1	4	14
Prn	6	10	0	1	1	0	0	0	2	20

(16) and (17) are examples of “Pro” and “Prn,” respectively.

(16) $AD>1/CP\geq 1$ (clauses, where no entity referring to a subject in SIC is found, are omitted)

[-1] he does have his limits, **as does Diaz**. [1] **She** doesn’t like nude scenes.

[2] “I [= Diaz] don’t think [3] it really adds to the plot,” [...].

(COCA: news; emphasis added and underlining mine)

(17) $AD>1/CP\geq 1$

[-1] The surface of the planet is mostly water, **as are we**. [1] At least occasionally, **we** ought to be able to drink any trailside or roadside water [2] **we** happen upon. upon. [3] I always like the scene in Western movies [...].

(COCA: magazine; emphasis added and underlining mine)

As with SIC, in *SAI_as*, a personal pronoun subject is realized as the subject in the immediately subsequent clause or realized consecutively. This pattern can be observed more frequently than *SAI_as* in “Pro.” Thus, *SAI_as* with “Prn” has the same “topic-introducing function” as SIC.

In terms of motivation to use *SAI_as*, SAI is applied to *as*-clauses with proper noun subjects simply because of their weight. The small ratio of $AD>1/CP\geq 1$ in “Pro” supports this observation. This tendency indicates that *SAI_as* in “Pro” is unlikely to be used for the “topic-introducing function.” In other words,

such a SAI_*as* is mostly used for providing additional information on the main clause. In contrast, in the case of personal pronoun subjects, not only is the contrastive focus placed on the postposed subject, but also such a subject tends to be introduced into the subsequent context as a highly topical element. This also motivates the use of SAI_*as* with “Prn.”

4.3 SAI in *than*-clauses

As shown in Table 5, the data of personal pronoun subjects are rarely found for SAI_*than*. Given this, a statistical test is not conducted here. Instead, this subsection focuses on describing the characteristics of this construction based on Table 5.

Table 5 Distribution of AD and CP classified by subject type (SAI_*than*)

	[1] AD1/CP0	[2] AD1/CP ≥ 1	[3] AD > 1/CP0	[4] AD > 1/CP ≥ 1	Total
Pro.	1 (2%)	0 (0%)	39 (78%)	10 (20%)	50 (100%)
Prn.	0 (0%)	0 (0%)	2 (100%)	0 (0%)	2 (100%)

In Table 5, the percentage of [3] in both “Pro” and “Prn” makes up a large share of the data (78% and 100%, respectively), while the data of [4] in both subject types account for only a small proportion of total data (20% and 0%, respectively). This distribution indicates that there are few data where SAI_*than* exhibits the “topic-introducing” function, unlike SIC and SAI_*as*. It follows from this that SAI_*than* is used mainly to show contrastive focus. As with SAI_*as*, SAI_*than* is an optional SAI, but the motivation for its use is different. The motivation to use SAI_*than* is to mainly put a contrastive focus on a postposed subject, whereas SAI_*as* and SIC can also be used to introduce such an element into a new topic of the subsequent discourse.¹²⁾ This motivational difference seems responsible for the fact that the “topic-introducing” function is rarely observable in SAI_*than*, especially with “Prn.” However, the question arises as to why postposed personal pronouns tend to be avoided in this construction. Comparative clauses are used to compare two entities. Without SAI, this comparison can be achieved. Since SAI_*than* lacks the “topic-introducing” function, a light entity does not need to be put in the clause-final position to show comparison; there-

fore, postposed personal pronouns are scarcely realized.

We can see the motivational difference in Table 6, where “Others” are dominant but highly topical entities are rarely found. This distribution contrasts with that of SIC and SAI_*as*.

Table 6 Entity types referring to a subject of SAI_*than* (excluding the examples of AD1)

	S	S → S	O → S	S → Oth	O	Oth → S	Oth → O	Oth → Oth	Oth	Total
Pro.	2	0	1	0	0	0	0	0	7	10
Prn.	0	0	0	0	0	0	0	0	0	0

4.4 Inversion with *and neither*

As Table 7 shows, no significant differences are found between “Pro” and “Prn.” From this distribution, there is no relationship between the subject types and the distribution of the elements referring to the postposed subjects in the NIC. The result suggests that unlike SIC and SAI_*as*, NIC does not have the “topic-introducing” function.

Table 7 Distribution of AD and CP classified by subject type (NIC)

	[1] AD1/CP0	[2] AD1/CP ≥ 1	[3] AD > 1/CP0	[4] AD > 1/CP ≥ 1	Total
Pro.	2 (4%)	0 (0%)	30 (60%)	18 (36%)	50 (100%)
Prn.	0 (0%)	2 (4%)	30 (60%)	18 (36%)	50 (100%)

(Fisher’s Exact Test: $p = .38 > .05$. Effect size: small (Cramer’s $V = 0.2$))

Table 8 summarizes the elements referring to postposed subjects in the NIC in the subsequent discourse. In both types, “Pro” and “Prn” tend to be referred to as “Subject,” but unlike SIC and SAI_*as*, there is no difference between the subject types. There are 18 cases in total.

Table 8 Entity types referring to a subject of NIC (excluding the examples of AD1)

	S	S→S	S→O	S→Oth	O	Oth→S	Oth→O	Oth→Oth	Oth	Total
Pro.	5	7	1	1	0	2	0	1	1	18
Prn.	3	9	1	1	1	1	1	0	1	18

4.5 Summary

Overall, SAI_*than* and NIC differ from SIC and SAI_*as* in terms of motivation, which stems from the presence of the “topic-introducing” function. Contrary to the former group, SIC and SAI_*as* can frequently introduce personal pronouns, which are less informative than a proper noun, as a new topic (or the most highly topical element) into the subsequent context. In this respect, both constructions are likely to be used not only to show end focus or to convey supplementary information but also to make a connection over a sentence boundary. Put differently, SIC and SAI_*as* have an extra-sentential feature, whereas SAI_*than* and NIC are restricted to an intra-sentential feature (e.g., contrastive focus) in that SAI_*than* and NIC rarely exhibit the “topic-introducing” function, as summarized in Table 9 (“intra” and “extra” are short for “intra-sentential feature” and “extra-sentential feature,” respectively).¹³⁾

Table 9 Features of each SAI constructions

SAI	optionality	proper noun subject	personal pronoun subject
SAI_ <i>as</i>	✓	intra	extra
SAI_ <i>than</i>	✓	intra	intra
SIC	✗	intra	extra
NIC	✗	intra	intra

5. “Topic-promoting construction”¹⁴⁾

This section examines the similarity between SIC and SAI_*as*, and Lambrecht’s (1994: 176-183) “topic-promoting constructions,” such as presentational

there and left dislocation (LF). To begin with, let us consider (18), where the *wizard* is realized at the beginning of this passage, and then keeps the topic status until the third clause. After that, *the wizard* loses its status once, but regains it by being mentioned again in the underlined LF.

- (18) Once there was a wizard. He was very wise, rich, and was married to a beautiful witch. They had two sons. The first was tall and brooding, he spent his days in the forest hunting snails, and his mother was afraid of him. The second was short and vivacious, a bit crazy but always game. Now the wizard, he lived in Africa. (Lambrecht 1994: 177; underlining mine)

Lambrecht (1994: 165) divides a topic referent into the following five levels based on the degree of acceptability.

(19) The Topic Acceptability Scale

active accessible unused brand-new anchored brand-new unanchored
most acceptable —————> least acceptable

(Adapted from Lambrecht 1994: 165)

The LF in (18) is called a “topic-promoting construction” in that the original acceptability of the *wizard* (“accessible” on the scale of (19)) is promoted to “active” (most acceptable level).

Section 4 confirms that *SAI_as* and SIC can serve as the “topic-introducing” function. Given that this function is frequently observed in the case of $AD > 1$, both constructions can be considered a “topic-promoting construction” because they introduce a non-topical element in the clause-final position, and give the element topic status (i.e., topic of the subsequent discourse).¹⁵⁾

However, a practical difficulty arises when we look at the entity type referring to the subject of SIC and *SAI_as*. Most correspond to what Lambrecht (1994: 110) calls “deictic referents,” such as *I* and *we*. (20) shows the distribution of deictic referents realized as “Subject” in the subsequent context of both constructions.¹⁶⁾

- (20) a. SIC: deictic referents (15 cases); non-deictic referents (4 cases)

- b. SAI_*as*: deictic referents (16 cases); non-deictic referents (1 cases)

According to Lambrecht (1994: 110), deictic referents are “given their salient presence in the text-external world” and their acceptability is “active”. Therefore, following Lambrecht (1994), SIC and SAI_*as* do not serve as “topic-promoting constructions” because they cannot promote an entity that is already “active.”

A possible solution to this problem might be that we need a minor modification of Lambrecht’s (1994) characterization of deictic referents. For example, it can be argued that an entity that is “active” in the text-internal world is more active than in the text-external world in the sense that the former is referred to explicitly, unlike the latter. If this consideration is on the right track, SIC_Prn and SAI_*as* with “Prn” promote the topic acceptability of a deictic referent into a more active element by overtly referring to in the text-internal world.

6. Conclusion

In this study, the following four points were presented.

- (21) i. The four SAI constructions exhibit different behaviors in terms of function and motivation.
- ii. SAI_*as* and SIC can serve as the “topic-introducing” function (extra-sentential feature). On the other hand, SAI_*than* and NIC specialize in focusing on the postposed subject (intra-sentential feature).
- iii. The “topic-introducing” function is frequently observed when SAI_*as* and SIC have personal pronoun subjects.
- iv. Both constructions have the same feature as Lambrecht’s (1994: 176-184) “topic-promoting construction,” which even promotes the topic acceptability of deictic referents by referring to them explicitly in the text-internal world.

[Notes]

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- 1) In this paper, NIC without *and* (e.g., *Neither do I*) and cases of SAIs triggered by end weight (e.g., SAI with a long, complex subject) are excluded. These need to be examined and compared with SAIs with a single proper noun subject, but this is left for future research.
 - 2) I received permission to use this corpus from Graduate School of Language Education and Information Science, Ritsumeikan University.
 - 3) The reason for unifying the number of cases to 50 is that there are only about 60 cases of SAI_{as} with personal pronominal subjects in total.
 - 4) TV and Movie are omitted here because it is difficult to analyze their texts.
 - 5) The same applies to the other SAIs.
 - 6) The “CP0” includes cases where an element referring to the postposed subject of the relevant SAI appears after the second clause.
 - 7) The notion of “important” is based on (9). It says that CP is relevant to “the referent’s importance, thus attentional activation or cognitive anticipation.” Suppose a postposed subject in SAI is realized repeatedly in the subsequent context. In that case, such an entity is treated as an important entity in the context or activated in the writer or speaker’s consciousness.
 - 8) Personal pronoun subjects in SIC have a stronger “textual metafunction” (in Halliday and Matthiessen’s (2014) terminology), which is related to cohesion and information structure, than those with proper noun subjects.
 - 9) The reason why the example of AD1 is omitted is that its inclusion would make it difficult measure the effect of the “topic-introducing” function in question accurately. What is important in assessing this function is to confirm how many examples remain, except for the cases of AD1 (the same is true for other SAIs).
 - 10) SIC sometimes co-occurs with *but*. Whether SIC is often used in such contexts is left for future research, although the properties of the construction should be clarified.
 - 11) The question remains whether the result discussed in this paper alone sufficiently proves that the difference in the subject types is a key factor. To solve this, additional evidence is essential, for example, by conducting an acceptability judgment test on each subject type.
 - 12) See also Tokunaga (2021a, b) for a discussion of the different functions of the op-

- tional SAIs in comparative clauses and *as*-clauses.
- 13) Tokunaga (2021b) compares *as*-clauses with *than*-clauses with or without SAI. In canonical word order, both clauses tend to show additional information (“similarity” and “a comparison,” respectively); that is, they mainly serve an intra-sentential function.
 - 14) Tokunaga (2019) also points out this similarity for SAI_*as*.
 - 15) This study does not consider whether other “topic-promoting constructions” (e.g., presentational *there*) can serve the same “topic-introducing” function as SIC and SAI_*as*, but this will be addressed in future research.
 - 16) Takashi Mino (p.c.) commented that a large number of cases of deictic referents might be related to the notion of “empathy” proposed by Kuno (1978). I thank him for this invaluable comment.

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(Graduate Student)

SUMMARY

On the Discourse Functions of Inversion Constructions Introduced by
as, *than*, *neither*, and *so*

Kazuhiro TOKUNAGA

There have been many studies to date of subject auxiliary inversion (SAI) constructions such as *and* {*so*, *neither*, *as*}+AUX+NP and *than*+AUX+NP from syntactic, semantic, and information structure perspectives. Although some intra-sentential characteristics have been identified (e.g., a semantic restriction on the subject of SAI after initial *so*), little attention has been given to such extra-sentential ones as the relationship between these SAI constructions and the context. This study shows that the SAI constructions introduced by *so* and *as* have a distinctive discourse function of introducing the inverted clausal subjects into the immediately subsequent context, unlike other SAI constructions with *neither* and *than*. To determine the difference between the former group and the latter, this study analyzes data of these SAI constructions culled from the Corpus of Contemporary American English (COCA), adopting Givón's (2018) approach based on "anaphoric distance" (AD) and "cataphoric persistence" (CP). I conclude that (i) the four SAI constructions behave differently in terms of function and motivation, (ii) SAI constructions with *so* and *as* can exhibit the above-mentioned discourse function; in contrast, those with *neither* and *than* tend to present the focused subjects inverted in the clauses, (iii) the discourse function of the SAI constructions with *so* and *as* is most clearly realized when they have a personal pronoun subject, and (iv) the SAI constructions with *so* and *as* can be categorized as "topic-promoting construction" proposed in Lambrecht (1994: 176-184) because they serve to promote the topic acceptability of an inverted subject that is active in the text-external world by referring to it overtly in the text-internal world.