| **RESEARCH ARTICLE**

From a Logical Connective to a Discourse Marker: The Functions of "So" Dependent on its Location

Yichen Yu

Department of Linguistics, School of International Studies, Zhejiang University, Hangzhou City, Zhejiang-Province, 310058, China
Corresponding Author: Yichen Yu, **E-mail**: 22346035@zju.edu.cn

| **ABSTRACT**

Traditional studies have been referring to Halliday's meta-function of language to classify the uses of "so" as a discourse marker. However, there are some overlaps in the theories that were accepted earlier. Thus, this study first seeks to explore the discourse roles of "so" in terms of where it appears (utterance-initial, -middle, and -final) in dialogues and monologues of informal English language based on the TV Corpus and AntConc tool. Second, this paper tries to explain the extended use and internal functional mapping of "so" from a logical connective to a discourse marker in spoken English by building a connection between the two uses and providing an account for its functional borrowing. The ultimate goal is to render a new perspective of presenting both the logical and the discourse functions of "so" related to the syntactical structure and pragmatic context it is in.

| **KEYWORDS**

So; discourse marker; logical connective; discourse functions; informal spoken English.

1. Introduction

The paper investigates the uses of "so" both as a logical connective and a discourse marker from the TV Corpus of English-Corpora.org. The word "so" is selected mainly due to its multifunctional appearance in utterances of various contexts and its frequent use by both native speakers and English learners. Previous studies have covered the functions of "so" in many regards, especially when it plays the role of a discourse marker (Schiffrin, 1987; Blakemore, 1988; Redeker, 1990; Fraser, 1999; Johnson, 2002; Raymond, 2004; Müller, 2005; Fischer, 2006; Redeker, 2006; Bolden, 2009; Buysse, 2012; House, 2013; Collet, Diemer & Brunner, 2021, etc.) Piled as ideas put forward, the analysis of the functions of "so" still persists within the framework of the earliest proposal by Schiffrin (1987), which is formed from the meta-function of language by Halliday (1970). Thus, my research presents a different way of observing the discourse functions of "so" — to explain the role of its contextual constraints in relation to the location in which it occurs in utterances. This paper additionally focuses on the logical connective use of "so" and how it sheds light on the hot topic of "so" as a discourse marker. Some of the basic functions of "so" are tested in Antconc to help further compare the frequency of use in oral English. As my study advances, the structural relation between utterance as a whole and the markers that constitute it will be presented, as well as semantic logical features, pragmatic discourse functions, and their interconnections unveiled.

This paper is structured as follows. Section 2 is an overview of the opinions on the discourse functions of "so," mainly from previous literature under the principle of Halliday. Section 3 introduces how Antconc is of help in this study and how the main procedure is arranged. Sections 4 and 5, respectively, discuss how "so" can be treated in different ways as a locative connective and a discourse marker. The classification of its functions is processed by different locations of the occurrence of "so" in utterances. Section 6 is a brief discussion of two major questions of this paper: one about how the functions of "so" can be analyzed in terms of its position

in utterance and the other about the connection and possible transfer of function from a locative marker to a discourse one. Section 7 concludes.

2. Literature Review

Prior studies on discourse markers (DMs) are largely situated in three domains from Halliday's meta-functions of language (ideational, interpersonal, and textual). The ideational function of language refers to language serving "for the expression of 'content'" (Halliday 1970, 143), whereas DMs with a textual function create coherence of discourse (Aijmer 2002) and the interpersonal, "to establish and maintain social relations" (Halliday 1970, 143) especially between interlocutors.

In the case of "so" as a discourse marker, the classification of its functions also follows a similar paradigm.

Schiffrin (1987) first proposes the function of "so" as a "marker of cause and result" based on the ideational function of language. It distinguishes resultative, inferential, and actional meaning (in reference to the respective levels of epistemicity and justification). Besides, Blakemore (1988) and Fraser (1999) believe that "so" can even mark an inference by the listener from the speaker's utterance. Fischer (2006) explains this function as the display of a self-attentive mental process.

The interpersonal function of "so" includes prompting, holding the floor, prefacing speech acts, and connection markers. Raymond (2004) presents how to use the stand-alone, turn-final "so" as a prompt for the recipient to act in relation to a distinct prosodic profile. Collet, Diemer & Brunner (2021) list examples from ViMELF (Video-mediated English as a Lingua Franca conversations) and add that "so" is working as a signal for an unspoken inference to be made by the interlocutor. Besides, Redeker (2006) finds numerous situations where "so" is employed by ELF speakers when they hesitate, a function related to its role as a transition marker but more attentive to the speaker due to its consideration and re-organization of talk. Later, Buysse (2012) points out that "so" as a hesitation marker also possesses an interactional function in that it allows speakers to hold the floor. As for prefacing speech acts, Schiffrin mentioned early in 1987 that there is a resultative relationship between the request or question and some activity of prior discourse. Seo (2008) adds to it by denoting that the realization is speech acts initiated with "so," as in examples like "So who would AI vote for?". Moreover, "so" as a marker of connection is first described by Howe (1991). Redeker (2006) later calls it an "attentional cue" occurring at a discourse transition. House (2013) got similar results with ELF speakers but suggests that in this context, "so" is mainly self-attentive, contextualizing the speaker's processes of "perception, planning understanding, and affective stance," allowing ELF speakers to "effectively express (inter)subjectivity and connectivity and thus advance their pragmatic competence." This is similar to Sato's findings (2019) with Japanese EFL learners in written form where "so" is used to establish a common ground between the writer and the reader.

Earlier studies infuse an array of "so"'s discourse functions in the category of textual function of language. Johnson (2002) illustrates "so" as a directed topic developer in an institutional setting, and Müller (2005) believes the topic shifter usage is shown when coming back after a digression, an explanation of a topic, or an opinion mentioned before. Redeker (1990) mentions that "so" is used in her data to mark a summary, reword, and give an example of the prior talk. This use is similar to its role as a sequencer, as documented by Buysse (2012), who also mentions its role as a tool for elaboration. Furthermore, Bolden (2006 & 2009) points out that "so" is used to initiate pending or incipient actions, advance the speakers' interactional agenda and achieve mutual understanding. Thus, the "so" here is other-attentive. It indicates the following words emerge not from the immediate prior segments but have been on the conversational agenda for some time (Bolden, 2009). What's more, Lam (2010) presents the "self-editing" feature of "so." Similarly, Buysse (2012) puts forward the self-correction, i.e., "a textual device for self-repair" function of "so." They did their studies with HK and Dutch EFL speakers, respectively.

Previous studies are largely focused on particular cases popping up every now and then in daily communications and thus offer no clear distinction between the functions of "so." Thus, this paper first uses data from the TV Corpus, whose colloquiality is relatively high and legitimacy guaranteed. The AntConc tool plays a supporting role in displaying the general distribution frequency of the specific data. Secondly, I discuss the ways in which "so" is used as a logical connective in Section 4, as well as a different paradigm of analyzing the discourse and pragmatic functions of "so" in terms of the position it appears in utterances (initial, middle and final), both in monologues and dialogues in Section 5. The two sections serve as a new perspective by placing the functions of "so" within not the pre-existing framework of Halliday's but only three major locations in an utterance. Finally, Section 6 provides accounts for two questions: (1) why analyzing the functions of "so" as a discourse marker by its different positions is feasible and favoured; (2) how the discourse functions of "so" are affected by its use as a logical connective.

3. Methods

3.1 Corpus

The data set I utilize for this paper is the TV Corpus, part of the corpora from English-Corpora.org, which is the largest available corpora of informal English. The TV Corpus consists of 325 million words in 75, 000 fairly informal TV shows (e. g. comedies and dramas) from the years 1950 to 2018. By comparison, the TV corpus is 20 times as large as 10 million words in the "conversation" portion of the British National Corpus (BNC), even including the 2014 BNC update. This is one of the reasons for my choice of this corpus — large enough to gain a variety of tokens and still controllable in scale. Apart from its proper size, the TV Corpus also contains extremely informal language, which suits the need of my current study on the logical and discourse functions of "so." It is, in many cases, even more informal than the language in actually spoken corpora, such as the spoken portion of the BNC, according to the claim of the official site.

The functions of "so," both as a logical connective and a discourse marker, are identified by means of a corpus-based analysis.

3.2 Procedure

The usage of "so" in discourse communication possesses a certain inherent pattern. For example, it is used in conjunction with "that" to express a purpose, followed by an adjective to indicate degree, or by an auxiliary verb to convey commonality. Therefore, this paper intends to use the AntConc tool to assist in observing the frequency distribution of the functions of "so."

Test one is about the frequency distribution of "so" in three different locations of an utterance (initial, middle, and final). First, by clicking on the Word List and by applying wildcard characters when necessary (for example, "so,*" is tapped in to indicate the screen of one of the utterance-initial contexts of "so"), I can see how often "so" occurs in the three locations within utterances from the chosen corpus. Additional selection is further applied to eliminate items that do not fit into any of the categories expected. The result is shown in Table 1 of the Result part below.

However, the syntactic regularity of the uses of "so" is not particularly strong, especially when it is used as a discourse marker and when it appears in a highly colloquial context. In this case, it is ideal that their functions and uses be interpreted from the contextual situations they are in. So in this experiment, apart from moving "so" back and forth among three locations of an utterance, test two has chosen six of the most representative functional expressions of it (indicating degree, indicating commonality, signaling anaphora, prompting an effect, conveying a purpose, connecting to the old topic and making certainty) to do the frequency distribution test. All the items examined are presented with "so" acting as a logical connector. Table 2 shows the final data.

In addition, both quantitative and qualitative methods of analytic examination are employed in this study. The results obtained from the corpus and analyzed via AntConc showcase specific statistics to indicate frequency. In Section 4 and Section 5, respectively, I conduct a more qualitative examination and generalize the roles of "so" played in examples attached below, which are selected tokens from the TV Corpus. The specific functions of "so" are interpreted based on the examples from the context of use. It is fair to note that with the help of Antconc alone, it is far from enough to draw a clear line between two types of functions of "so," lest their relativity with its change of location in utterances. The frequency tables are put below only to show differences within each group of their own.

3.3 Results

Table 1 indicates a discrepancy in the production of discourse markers by different positions in an utterance.

Table 1 Frequency of "so" in different positions of an utterance	
Position	Frequency
Utterance-initial	528798
Utterance-middle	32503
Utterance-final	158

Table 2 shows how frequently each representative item of "so" with the logical function is used.

Table 2 Frequency of the most typical logical functions of "so"	
Function	Frequency
Indicating degree	212145
Indicating commonality	23722
Signaling anaphora	107502
Prompting an effect	1268207

Conveying a purpose	32753
Connecting to the old topic and making certainty	206

According to the results, "so" has the highest frequency of occurrence at the beginning of an utterance and occurs least frequently as an utterance-final marker. Meanwhile, as a logical connector, "so" appears with a wealth of functionality, among which the effect-prompting and degree-indicating functions stand out.

4. "So" as a Logical Connective
4.1 Indicating degree
(1) *Anyway, George, so good you're here. (Lopez, 2017, US/CA)*
(2) *I find it so hard to believe that you know so much about female artists. (Rizzoli & Isles, 2013, US/CA)*

The "so" indicating degree is normally placed prior to an adjective to fulfil its modifying function. As illustrated in (1) and (2), "so" is used to underline the degree of "good" and "much," respectively.

4.2 Indicating commonality
(3) *And she was struggling. And honestly, so was I; I mean, we got kids, we got bills. (Raven's Home, 2017, US/CA)*
(4) *I can't do anything. They're gone. And so is our man power. (Lost Girl, 2015, US/CA)*

The use of "so" to express commonality appears in a rigid form of "so + auxiliary verb + NP." The auxiliary is dependent on the change of tenses and aspects, as in (3), the simple past tense, and (4), the simple present. The NP takes on the form of a pronoun like the "I" in (3) and a noun or a noun phrase as presented in (4).

4.3 Signaling anaphora
(5)
- We already met. You remember?
- I don't think so. (Stan Against Evil, 2016, US/CA)
(6)
-So we're working under the assumption he acted alone.
- It would seem so, sir, yes. (Scandal, 2017, US/CA)

When "so" refers to the constructions that occurred previously in the same discourse, usually between interlocutors in a natural conversation, as displayed in (5) when "so" is the counterpart of "we already met" and in (6), the representation of the statement uttered by the first speaker, it takes on the role similar to a pronoun.

4.4 Prompting an effect
(7) *They didn't have any shoes in her size, so she brought her "Out of Africa" shoes… (Close Up with the Hollywood Reporter, 2016, US/CA)*
(8) *Apparently, he was desperate for cash, so I paid up. (Castle, 2016, US/CA)*

The function of "so" as a marker of effect is one of the most accepted uses by both native and non-native speakers in the informal English language. In example (7), the content before "so" is a statement providing a cause for the part after "so" to generate an effect. Similarly, in (8), the cause-and-effect logic is represented by the speaker's causal utterances of "desperate for cash" and "paid up."

4.5 Conveying a Purpose
(9) *…before you get any stupid ideas, Reuben and I broke in here so I could help him with his math. (Modern Family, 2015, US/CA)*
(10) *He was trying to force everyone out so that he can flip the property. (The Mysteries of Laura, 2015, US/CA)*

"So" as in token (9) and sometimes "so that" of (10) are deemed to mark a purpose and result, which is different from the marker of effect, for it implies a subjectivity when the speaker makes the current utterance.

4.6 Connecting to the old topic and making certainty
(11)
-…you are, you're obsessed with him.
-So you're saying that I moved here from New York and I … (Crazy Ex-Girlfriend, 2015, US/CA)

Particularly in conversations between two or more interlocutors, "so" is used to convey a gentle ascertainment. It is generally translatable with "so" as a marker of reason or result. Take the "so" in (11), for example; it appears at the very start of the second speaker's utterance, followed by a fixed discourse construction, "you are saying." It denotes that the speaker is trying to seek consensus from his or her partner and to support the idea obtained from the speaker's utterance.

5. "So" as a Discourse Marker
Before embarking on analyzing the functions of "so" as a discourse marker based on its positions, I am to propose my definition of "discourse marker." Discourse marks (DMs) can be broadly defined as words or phrases that aid in managing the flow and structure of discourses. In this paper, I reckon DMs as constructions, subject to the discourse structure, whose meanings exert no impact on the entire utterance, but only assist to render implicature in particular circumstances. This interpretation is referred to and revised from Schiffrin's (1987) regard that DMs are "sequentially dependent elements which bracket units of talk" and Aijmer's (2002) definition—DMs are dispensable elements whose function is to enable the hearer to interpret utterances based on the context.

5.1 Utterance-initial
5.1.1 Marker of emphasis
As a marker of emphasis, "so" is often followed by a short pause or a space deixis, which can be seen as an emotional gestation or a short preparation for the listener to digest the more important content to come.

(12) *...which is gonna be messy. So here we are, reunited at last. (Agents of S.H.I.E.L.D., 2016, US/CA)*
(13) *I believe, of that—of that year. So, here, it's September. (The Keepers, 2017, US/CA)*

In many cases, the speaker is inclined to add "here," as illustrated in (13), or "here we are" in (12) to even stress the tone of emphasis.

5.1.2 Turn-opener or attention-getter
Commonly used in monologues or in situations where the speaker's speech requires a considerable time. The speaker opens up with "so" to gain the attention of the listener, and it can be used with modal particles like "um" when the speaker is uncertain about what is going to utter. It is commonly used when followed by vocatives or deixis.

(14) *So, friend, let me ask you a question. (Anger Management, 2013, US/CA)*

The "so" in (14) with a vocative "friend" following after perfectly draws the attention of the hearer or the audience. The essence of using "so" in this context is to create a sound that is easy to make but still noticeable to others.

5.1.3 Topic-shifter
The use of "so" to shift the topic is employed by many native English speakers as well as learners of English. It has become a common choice in daily conversations. In these contexts, the topics before and after "so" are not necessarily closely related and sometimes even initiate pending or incipient actions, i.e., information that originates from an earlier turn of the discourse but has been on the conversational agenda for some time. (Bolden, 2009)

(15) *Ssh ssh no, don't get up, I'll do the talking. So, the car's about to backfire, and the hiker he's staring at the sky. (Sherlock, 2012, UK/IE)*

In the TV series, the speaker shifts from the state of hushing the other speaker to the position of making her deduction about a crime. It indicates the topic-shifter function of "so" is mostly used when speakers intend to get down to the point of the current conversation.

5.1.4 Marker of summing up or rewording
After a series of narratives, the speaker makes his or her own comment, summary, or reiteration of the above, at which point he or she will begin the utterance with "so." Sometimes, a restatement can be started by an agreement marker "okay" followed by a "so."

(16) *It wasn't real. So it's like you woke up from a dream. (Agents of S.H.I.E.L.D., 2017, US/CA)*
(17)
-Look at her just sitting there, eating figs.
-Okay, so we're not talking about my issue. (Trophy Wife, 2014, US/CA)

(16) is a good example of the restating function of utterance-initial "so," and (17) is more of a summing-up marker for the entire dialogue.

5.2 Utterance-middle
5.2.1 Hesitation marker

Located in the middle of an utterance, "so" as a hesitation marker is used normally when the flow of speech is stuck from the speaker's momentary incompetence. It is sometimes accompanied by an intonational auxiliary to provide the speaker with time to breathe and think and to reorganise what is going to say next. Usually the content of the discourse after "so" has great relevance to the first half of the segment.

(18) *Like, he's got this NordicTrack and something called a ButtMaster, so... and, um, this thing happened to me. (Halt and Catch Fire, 2017, US/CA)*
(19) *We had not seen each other in such a very long time, and so... well... here you are. (I Dream of Jeannie, 1967, US/CA)*

"So," when used as a marker of hesitation cutting off the flow of utterances, has great companies, like "and" "um" in (18) and "well" in (19), to generate an indecisive vibe naturally presented in daily communications.

5.2.2 Self-correction marker

Voluntary self-correction from the realization of a mistake halfway through an utterance is frequently used. In this case, "so" also sometimes appears with "sorry" or "no." It does not necessarily indicate that the speaker has not thought things through or has run out of things to say.

(20) *Well, maybe she didn't want to wrinkle it... no, so she stuffed it in her backpack. She was just trying to be environmentally conscious. (Samantha Who? 2008, US/CA)*

The speaker in the example above is halfway to making comments on other people's intentions when she realizes her misunderstanding and initiates a self-repair by using the utterance-middle "so" co-occurring with a straightforward negation marker "no."

5.2.3 Sequencer

Refers to a chronological marker used in narrative contexts such as monologues and public speaking. It indicates that the speaker is moving on to the next topic in sequence and is about to outline the outcome of the story. The equivalent of "so" in this case can be "and then."

(21) *Ted McDonald. Uh... unemployed, recently evicted from his apartment, so he moves back into his ma's place. Lost his son four years ago in a bombing. Organized. Frustrated. (Rookie Blue, 2014, US/CA)*

The speaker, or rather the narrator in the TV show, is in the process of telling the life story of Ted McDonald. The "so" appearing in the utterance is no mistake to be regarded as a marker of result, one of the uses of a logical connective. But since it merely renders a weak logical connection between the parts before and after "so," I see it as a sequencer marking the time order.

5.3 Utterance-final
5.3.1 End-of-speech marker

This function marks the finality of a speech chunk in monologues or speeches or the end of the speaker's current turn in a conversation. This function is based on and directed only to the speaker, i.e., it excludes the consideration of the hearer's role in response and indicates the semantic integrity of the previous segment.

(22) *Well, he thinks his fish is hung over and just sleeping... so yeah. (Trailer Park Boys, 2014, US/CA)*

"So yeah" is gradually becoming a widely accepted way for English speakers to mark an end of speech when they really want to signal a natural finality by making a sound. So is the speaker in (22).

5.3.2 Floor holding marker

This function is generally found in conversational contexts of two or more interlocutors. After the completion of the first speaker or the floor-holder, when he or she still intends to continue outputting his or her point of view, a sound is made at the end of the turn to block the hearer from gaining the floor to speak. In this regard, "so" is usually accompanied by interjections, such as "um."

(23)

-If you do well, and the expectations are up here. When you don't do well… so…
- I think that's a definite, big yes. (The Glee Project, 2011, US/CA)

The first speaker's words in token (23) are yet finished while (s)he is interrupted by the second speaker or simply advocates a suspense of his or her speech. The speaker still has room for further elaboration on the result "when you don't do well," but (s)he marks a floor-holding by using "so" at the end to try and stop the second speaker's turn from starting.

5.3.3 Marker of floor yielding and action prompting

Contrary to 3-(2), floor yielding means that speakers pass on their floor to the next speaker. They terminate the current turn by themselves, regardless of semantic adequacy, and let the listener talk and make speech acts. When the speaker's views are fully expressed, they expect the listener to be able to make interpretations on their own and to express similar or opposite views after gaining the floor to speak. When the intentions are not fully output, with a "so" at the end of the turn, speakers hope their listeners grasp the cue brought by "so" and perform the corresponding speech acts to supplement the incomplete information.

(24)
-Well, this is just like Adam's pitch and that didn't work out so great, so.
-No, no, no. (Girls, 2017, US/CA)

The first speaker in (24) has already made the intention crystal clear, but (s)he is willing to remind the hearer of the finality of his or her speech and of the timing when the hearer is expected to take over the floor and make actions.

6. Discussion
6.1 Analyzing discourse functions of "so" by its position in utterance
While traditional studies have demonstrated how "so" has developed multiple discourse functions from the paradigm of meta-function of language, overlaps occur.

Firstly, in a broad sense, the interpersonal function of language is meant to reflect and retain social relationships between interlocutors, while the textual function realizes the coherence of a text or a discourse. But these two functions are somewhat closely linked and work complementarily in the pragmatic contexts. Put simply, the realization of one can also cast the effects on the other.

Narrowly speaking, the discourse functions of "so" attached to the two language functions also reveal certain vague points.

The functions of action prompt and interference prompt bear a similar essence in regulating the action of the recipient. The probable distinction between the two manifests theoretically in the temporal sequence and the depth of dialogue.

The function of marking connections to establish a common ground between interlocutors is more of an interpersonal function of language. But Collet, Diemer and Brunner (2021) bracket it together with the role of marking sequences, which is more oriented to the textual function of language. And if a sequencer is used in a narrative discourse, it normally marks a chronological order, an indispensable element of story-telling. And so there is, in fact, a substantial difference in the meaning between the two functions.

Besides, the "marker of emergence from incipiency" (Bolden, 2009) function is more like an exceptional case or, arguably, is subject to the topic shifting function.

Therefore, a new perspective is needed to render the overall functional spectrum of "so" and to observe the relationship among its different functions. Hopefully, if we differentiate the functions of "so" by its location in utterances, a clearer understanding may be achieved.

6.2 From a logical connective to a discourse marker
Several types of the discourse functions of "so" are originated from its logical ability to signal a result or a cause first proposed by Schiffrin (1987).

When "so" is used as a sequencer in narration, it carries a touch of cause-result marking feature, only not strong enough to indicate a real cause-and-effect logic but remains a gentle marker in the timeline. In contrast, the hesitation marker of "so" is an intention or, rather, a failure to jump to a conclusion, output an effect, or mark a result in an utterance. I also argue that the floor-yielding "so," particularly in circumstances where the current speaker is running out of things to say but requiring the hearer to make their own inferences and speech acts, takes on the implication of unaccomplished result or effect.

"So" as a discourse marker, on the other hand, has inherited the function of marking degree. The utterance-initial use of "so" as a marker of emphasis is the reflection of a high degree. In other words, the logical function of "so" to indicate degree implies an emphasis, while the discourse function of emphasis is an untranslated version of degree.

And when "so" plays the role of an attention-getter, it also showcases features of degree or emphasis, for attention is to be gained through stressing the prominent part of a speech. While sometimes, a topic-shifter "so" is regarded as a simple discourse placeholder, occupying a slot in an utterance. Its own meaning is eclipsed by the upcoming information but can be implied from the relationship between interlocutors to indicate, such as "with you here, and I'm here to talk to you" "just between you and me," or in context, like "having said that" or "apart from what has been discussed."

What's more, the summing-up "so" in the utterance-initial position is a trace of the function of anaphora signaling. Though the structural and syntactical similarity is not much left as language develops, there remain identical features when it comes to semantic-pragmatic issues. They both refer to the already appeared contents and allude to a close connection between the following information and the previous context.

Rather than suggesting an "end" to the use of "so" as a logical connector or any "replacement" of the discourse function, I find it a tendency that highly colloquial language pick words with high frequency and flexibility out from existing and easy-going morphemes used to play other roles.

7. Conclusion

This paper has examined the functions of "so" as a logical connective and a discourse maker. Based on a wealth of prior studies and the help of a proper corpus, it is able to reveal some features and facts worth noticing.

First of all, different from the canonical classification of "so" as a discourse marker supported by most researchers under the guidance of Schiffrin (1987) and Fraser's (1999) proposal, distinguishing functions of "so" in view of its different positions in which they appear in the discourse is highlighted in this paper. Generally speaking, the utterance-initial position of "so" marks an emphasis, a start, a topic shift, and a conclusion. The utterance-middle "so" is used when the speaker hesitates, makes self-repairs, and goes on to tell the story. And when "so" occurs in the final position of an utterance, it signals the end of the speech, or it means the speaker wants to continue talking or simply stops and is about to give the floor to the hearer or the next speaker. By analyzing the discourse uses of "so" according to where it is presented, we are able to form a clear picture of how the semantic-pragmatic functions of a word are displayed in terms of the syntactic structure. Another advantage of the revised means of analyzing a discourse maker is that it avoids the emergence of homogeneous functions along with the accumulation of discourse and the progress of research.

Secondly, this paper has pointed out the relationship between the logical functions and discourse functions of "so." It puts forward the idea of a major functional reflection of the discourse function derived from the logical one. By offering an explanation of the slight shift from the connective that marks logic and provides a translatable meaning to the marker, which entails and depends on discourse contexts, certain cognitive patterns are found in speakers' utterances.

Nonetheless, the study is not without limitations. For one thing, whilst the classification system I proposed has encompassed the functional classifications of previous studies and allows new functions to enter with research development, the tripartite system still suffers from the fact that sometimes the positional boundary is not yet clear enough. For instance, the utterance-middle position is, at times, deemed as occurring at the very start of a discourse to mark a beginning, and thus, the functions are said to be exchangeable with an utterance-initial one. With the doubt taken into consideration and the knowledge of the difficulty in determining a full stop in a fairly informal conversational context, the taxonomy system is welcomed to be subdivided possibly by future research. For another, though I have provided interpretations of the logical mappings for many of "so"'s discourse functions, there are still several functions, e.g., the functions of self-correction, floor-holding marker, floor-yielding, and action prompting, yet to be given identifications of the source of their underlying logical functions. Perhaps more diachronic research is required to provide a full account. And still, the Antconc tool is used only to show the frequency of how "so" performs in different positions in utterances and how often it is used as a logical connector. The experiment could have been more convincing if it were possible to assess in advance and differentiate among the various functions of "so" as a discourse marker and then use the software to judge its frequency. And it would be more objective when other tools are employed to see the interaction between different locations and the logical or discourse functions.

Publisher's Note: All claims expressed in this article are solely those of the authors and do not necessarily represent those of their affiliated organizations, or those of the publisher, the editors and the reviewers.

References

[1]   Aijmer, K. (2002). English Discourse Particles: Evidence from a Corpus. *Acta Linguistica Hafniensia*, 36(1), 190-193.

[2]   Blakemore, D. (1988). *"So" as a constraint on relevance*. In R. Kempson (Ed.), Mental representations: The interface between language and reality (pp. 183-195). New York: Cambridge University Press.

[3]   Bolden, G. (2006). Little words that matter: Discourse markers "so" and "oh" and the doing of other-attentiveness in social interaction. *Journal of Communication*, 56, 661-688.

[4]   Bolden, G. (2009). Implementing incipient actions: The discourse marker "so" in English conversation. *Journal of Pragmatics*, 41, 974-998.

[5]   Buysse, L. (2012). So, as a multifunctional discourse marker in native and learner speech. *Journal of Pragmatics*, 44, 1764-1782.

[6]   Collet C., Diemer, S. & Brunner, M-L. (2021). So, in video-mediated communication in the Expanding Circle. *World Englishes*. 40, 594-610.

[7]   Fischer, K. (2006). *Frames, constructions, and invariant meaning*. The functional polysemy of discourse particles. In K. Fischer (Ed.), Approaches to discourse particles (pp. 427-447). Amsterdam: Elsevier.

[8]   Fraser, B. (1999). What are discourse markers? *Journal of Pragmatics*, 31, 931-952.

[9]   Halliday, M., & Michael, A. (1970). *Language Structure and Language Function*. Harmondsworth: Penguin.

[10] House, J. (2013). Developing pragmatic competence in English as a lingua franca: Using discourse markers to express (inter)subjectivity and connectivity. *Journal of Pragmatics*, 59, 57-67.

[11] Howe, L. (1991). *Topic change in conversation* (Unpublished PhD thesis). University of Kansas, Kansas

[12] Johnson, A. (2002). *"So...?": Pragmatic implications of so-prefaced questions in formal police interviews*. In J. Cotterill (Ed.), Language in the legal process (pp. 91-110). New York: Palgrave Macmillan.

[13] Lam, P.W. (2010). Toward a functional framework for discourse particles: A comparison of well and so. *Text & Talk*, 30, 657-677.

[14] Müller, S. (2005). *Discourse markers in native and non-native English discourse*. Amsterdam: John Benjamins.

[15] Raymond, G. (2004). Prompting action: The stand-alone "so" in ordinary conversation. *Research on Language and Social Interaction*, 37, 185-281.

[16] Redeker, G. (1990). Ideational and Pragmatic Markers of Discourse Structure, *Journal of Pragmatics*, 14, 367-381.

[17] Redeker, G. (2006). *Discourse markers as attentional cues at discourse transitions*. In K. Fischer (Ed.), Approaches to discourse particles(pp. 339-358). Amsterdam: Elsevier.

[18] Sato, S. (2019). A corpus-based analysis of so in written discourse: A comparison between L1 English speakers and Japanese EFL learners. *Applied Pragmatics*, 1, 26-45.

[19] Schiffrin, D. (1987). *Discourse markers*. Cambridge: Cambridge University Press.

[20] Seo, K. (2008). The ubiquity of the discourse marker "so" in the oral discourse of Korean EFL learners, *Anglo-American Studies*, 20, 139-165.

[21] The TV corpora. (2019). Retrieved from https://www.english-corpora.org/tv/