A Short Analysis of Discourse Coherence

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Abstract—As an essential element of discourse, coherence has been the focus of study for several decades. Previous researches mainly view discourse coherence as a static product and explore it on linguistic level. However, it is also a dynamic process and can be achieved by the cooperation made by the discourse producer and receiver based on their mutual understanding. It involves both linguistic and non-linguistic factors. In this article, the author reviews previous researches on discourse coherence and presents the nature of discourse coherence from cognitive perspective, aiming at giving an insight into discourse comprehension and teaching.

Index Terms—discourse coherence, cognitive, cohesion

I. BASIC CONCEPT OF DISCOURSE COHERENCE

A. Definition of Discourse Coherence

The history of discourse analysis can be traced back to 1950s. Before that linguistic studies have focused on the study of sentence level. Since 1950s, with the development of semiotics, cognitive science, artificial intelligence, psychology, communication studies etc., the focus has been transferred from sentences to linguistic units larger than sentences — discourse. Then one aspect of discourse studies becomes especially important — discourse coherence, the way by which passages can be formed as a discourse.

In this part some arguable terms should be made clear first. In books on discourse analysis, people can often encounter such terms as text and discourse. These are two terms that are in some writers used interchangeably and in others carefully distinguished. Stubbs (1983) and Coultlard (1985) distinguish text as written language from discourse as spoken language. Halliday and Hasan (1976, p.1) take text as “a unit of language in use” which can be “any passage, spoken or written, of whatever length, that does form a unified whole”. While unlike Halliday and Hasan, Leech (1982) takes discourse as both written and spoken English. Some linguists also distinguish text and discourse from the functional perspective. According to van Dijk (1980, p.25), the difference between text and discourse lies in that the former is a theoretical conception related to a language user’s competence while the latter is a general term for examples of language use, i.e. language that has been produced as the result of an act of communication. Brown and Yule (1983, p.6) define text as the “verbal record of a communicative act” and distinguish text-as-product from discourse-as-process.

In order to avoid any confusion, the author adopts the idea that text and discourse are two different expressions. Discourse is used as a coherent combination of sentences or sentence fragments that is the result of communication interacted between participants, whether speaker and listener or writer and reader. While text only refers to written discourse. Here one point should be paid attention to is that where the work of another linguist is discussed, the author has tried to use whichever term he or she originally used.

Soon after the birth of discourse analysis, scholars continued to apply their traditional methodology, Generative Grammar, which had been used in syntax, to discourse analysis. This is called “text grammar”, which aims to produce a set of rules, similar to those used in sentence grammar, to generate discourse. The emphasis is placed on the rules and regularities and their constraints on the linear relations among discourse elements. Thus, what distinguishes a discourse from sentence becomes that of quantity and discourse grammar serves no more than a complement for the existing regularity systems and formal systems of sentences. But this approach does not work well with discourse in that discourse is much more complex than sentence. In addition, unlike sentence which is heavily reliant on grammaticality and regularity, what is most important to discourse is the choice in a semantic and pragmatic network. What is used to define discourse is not its grammaticality, but to see whether it meets the requirements in a certain context. Therefore, the focus of attention in discourse analysis has shifted from its grammaticality to its textuality, a term proposed by Halliday & Hasan (1976) to refer to what distinguishes a text from something that is not a text. And they have specified various types of cohesive devices, which are the most important sources for a piece of passage to have texture. This is the origin of the study of discourse coherence.

The notion of coherence is not strictly defined. Roughly speaking, discourse coherence is the semantic relationship between propositions or communicative events in discourse, which is a feature of the perception of discourse rather than discourse itself.

In the following part, the author will first make a general survey of studies on discourse coherence and then present a
brief view on cohesion and coherence and finally the nature of discourse coherence.

B. A General Survey of Discourse Coherence

One of the fundamental properties of discourse is its coherence. Since 1960s linguists have been on the investigation of discourse coherence. Linguistic analyses of the notion of coherence in discourse have been provided by van Dijk (1972, 1977, 1985), Halliday and Hasan (1976), Widdowson (1978, 1979), Kintsch (1974), Coulthart (1977, 1985), Beaugrade (1981), Brown & Yule (1983), Tannen (1984), Blackmore (1987, 1988, 1992), Cook (1989), Schiffrin (1994), etc. The publication of *Cohesion in English* in 1976 by Halliday and Hasan is regarded as the origin of the study of discourse coherence. And the last three decades or more have witnessed a multifarious development in the theory of discourse coherence and a large number of theoretical systems have been proposed. The following survey will look roughly at several representative studies on discourse coherence and present the author’s view of them.

According to Halliday and Hasan (1976) a text must have texture, which is guaranteed collectively by cohesion and register. And in the process of discussing the relation between cohesion and texture, Halliday and Hasan put forward the standards for coherence. In their book, *Cohesion in English*, they argue that:

“The concept of cohesion can be usefully supplemented by that of register, since the two together effectively define a text. A text is a passage of discourse which is coherent in these two regards: it is coherent with respect to the context of situation, and therefore consistent in register; and it is coherent with respect to itself, and therefore, cohesive. Neither of the two conditions is sufficient without the other, nor does the one by necessity entail the other. Just as one can construct passages which are beautifully cohesive but which fail as texts because they lack consistency of register—there is no continuity of meaning in relation to the situation. The hearer, or reader, reacts to both of these things in his judgment of texture.”

(Halliday & Hasan, 1976, p.23)

According to Halliday and Hasan (1976), a text is coherent which must satisfy two conditions: one is a text must be consistent with context in which it is created, the other is a text must have cohesion, that is, all parts in a text must be connected by cohesive devices.

Halliday and Hasan put forward the formal markers to express coherence, that is cohesive ties and devote themselves to the study of various cohesive markers by which semantic relations are realized, but they failed to elaborate how context consistency influences the choice of these cohesive markers, which is more important.

In his book *Text and Context*, van Dijk says,

“Coherence is a semantic property of discourse, based on the interpretation of each individual sentence relative to the interpretation of other sentences.”

(van Dijk, 1977, p.96)

He argues that coherence of discourse is represented at two levels: linear or sequential coherence and global coherence. Linear coherence refers to “coherence relations holding between propositions expressed by composite sentence and sequences of those sentences” (van Dijk, 1977, p.95) Global coherence is of a more general nature, and characterizes a discourse as a whole or a larger fragments of a discourse.

Moreover, according to van Dijk (1977) each discourse contains an overall semantic structure called macrostructure, which is a semantic representation of discourse. And the semantic structure of a discourse is hierarchically organized at several levels of analysis. The most general macro-structure, sometimes called topic of a discourse entailed by the other macro-structures, dominates the discourse. These macro-structures determine the global or overall coherence of a discourse and are themselves determined by the linear coherence of sequences.

The theory of semantic macro-structure can operate on monologue, expositive, narrative, even argumentive discourse, but the method of analysis is very complicated. Moreover, it can hardly be used to analyze the coherence of a spoken discourse, especially a dialogue with its topic shifting from one to another, and no global topic governing the whole dialogue. And the exploration is confined to the inside of discourse itself, ignoring the effects imposed upon by contextual factors, social, physical and psychological.

According to Mann and Thompson (1987), a text is composed of several functional chunks at various levels; each can be divided into smaller ones so as to form the basic functional structure of the text. Moreover, each functional chunk has its own special function, which is represented in different rhetorical relations. The so formed structure reflects the inner functional structure of the whole text and the subjective rhetorical arrangement of the author. Therefore, they call it rhetorical structure. They view coherence and unity as the same thing. The coherence or unity is realized by the rhetorical structure of the text. If smaller chunks at lower level cannot form a united structure, the text is thus incoherent.

Similar to van Dijk, Mann and Thompson are mainly concerned with elements within text.

Danes (1974) and Fries (1983) connect discourse coherence with thematic progression of a discourse. They take the point of view that the degree of discourse coherence is affected by that of the connectivity of themes in different sentences. Lack of such connectivity will lead to the discontinuity in the process of thematic progression, which in turn will result in the discontinuity of cohesive relations. A discourse thus becomes incoherent.

Thematic progression theory proposed by Danes and Fries studies discourse coherence mainly with the elements within a discourse and is only one of the important elements that influence coherence. It has nothing to do with those factors outside a discourse.
A pragmatic perspective is taken by Widdowson (1978) in his analysis of discourse coherence in terms of illocutionary act. He defines cohesion as "the overt relationship between propositions expressed through sentences," and then perceives the coherence of a discourse as "the relationship between the illocutionary acts which propositions, not always overtly linked, are being used to perform." (Widdowson, 1978, p.28) He explains that "in the case of cohesion, we can infer the illocutionary acts from the prepositional connections which are overtly indicated; in the case of coherence, we infer the covert prepositional connections from an interpretation of the illocutionary acts." (Ibid, p.29)

Widdowson’s theory of illocutionary act based on Speech Act Theory is succinct, providing an account of how some apparently unconnected utterances go together in a conversational discourse to form a coherent discourse. Simple as it is, this approach seems difficult to be applied to concrete analysis. Because the general problem with the application of Speech Act Theory is that people do not know how to assign speech acts in a non-arbitrary way if they look even quickly at a transcribed record of a conversation. In practical dialogue, several utterances may be used together to perform one illocutionary act.

De Beaugrande and Dressler (1981) propose seven defining characteristics of a text, which they call seven standards of textuality. According to them, any natural text, whatever text type it belongs to, shares these characteristics. They are:

1. intentionalty (the fulfillment of the author’s intentions)
2. acceptability (relevance to the text receiver)
3. informativity (right amount of information with regard to the reader)
4. situationality (location in a discrete socio-cultural context in a real time and place)
5. intertextuality (relationship with other texts which share characteristics with it)
6. cohesion, and
7. coherence

A text then is defined by de Beaugrande and Dressler as “a communicative occurrence which meets seven standards of textuality.” (1981, p.3) They also make a distinction between cohesion and coherence. In their opinion, cohesion “concerns the ways in which the components of the surface text, i.e. the actual words we hear or see, are mutually connected within a sequence.” (1981, p.3) Surface components depend upon each other according to grammatical forms and conventions; therefore they view cohesion as grammatical dependency. Coherence, on the other hand, “concerns the ways in which the components of the textual world, i.e. the configuration of concepts and relations which underline the surface text, are mutually accessible and relevant.” (1981, p.4)

Brown and Yule (1983) emphasize the importance of participants’ backward knowledge in the interpretation of discourse coherence stored in memory, taking such forms as frame, schemata, script, scenario and plan. If the interpretation of a discourse is in consistency with the mentally stored knowledge or backward scenes and can be interpreted as an interrelated unity, the discourse is thus coherent. However, they don’t define the scope of coherence strictly and not take it as a theoretic concept, but a general concept.

From the above brief review on previous approaches towards discourse coherence, two facts are revealed: first, discourse coherence is such a complicated concept that it is related to almost every aspect of discourse communication. Secondly, there is no all-embracing rule governing coherence analysis. Every scholar presents his or her insight into one aspect of discourse coherence and views it from different angles. Based on the above illustration, the author will present a comparative view to discourse coherence.

II. COHESION AND COHERENCE

Cohesion and coherence are two hard distinguished linguistic terms in discourse analysis. Though they share the same morpheme “cohere”, they are different. Scholars define and classify them from various aspects. Following is a brief discussion about the concepts of cohesion and coherence so as to find the relationship between them.

Cohesion and coherence are first studied by Halliday and Hasan in their book *Cohesion in English*. They take the view that the primary determinant of whether sets of sentences do or do not constitute a text depends on cohesive relationships within and between the sentences, which create texture. “A text has texture, and this is what distinguishes it from something that is not a text. It derives this texture from the fact that it functions as a unity with respect to its environment.” (Halliday & Hasan, 1976, p.2) According to Halliday and Hasan, “The concept of cohesion is a semantic one; it refers to relations of meaning that exist within the text, and that define it as a text.” (Ibid, p.4) Cohesion can hold segments of a text together, making it a semantic edifice. The importance of cohesion lies in the continuity it expresses between one part of the text and another. Halliday and Hasan category five kinds of cohesive devices and sub-classify them. The categories of cohesion are showed in the followed diagram.
Cohesion plays an import role in discourse. When a cohesive relation is set up between two elements, they are thereby at least potentially integrated into a text. It is clear that cohesion, one component of textual function, is realized by lexico-grammatical units in a discourse.

By its role in providing texture, cohesion helps to create text and expresses the continuity that exists between one part of the discourse and another. In principle, a discourse of any length will employ cohesive ties. However, it is not the sufficient condition for a text. In daily life, people can often encounter sentences that are well-connected by cohesive devices, but not coherent at all. For example,

*John was reading China Daily. Newspapers published in America usually contain several pages. The first page of this book was lost. The lost child had been found by policeman.*

Though cohesive devices are used in these sentences, they are obviously not coherent. It gives reader a false impression of being coherent, which is called pseudo-coherence by some linguists.

Many linguists (Brown & Yule, 1983) have pointed out that discourses can be coherent without cohesion. Although they illustrate their points with some examples at the extreme end, it is necessary to go beyond the textual realization of semantic relation to search for coherent discourse. For example,

*John bought a cake at the bakeshop. The birthday card was signed by all of the employees. The party went on until after midnight.*

Superficially it is incomplete and incoherent, but in fact its overall meaning is unified and coherent. That’s because of people’s experience about birthday, they know “the cake”, “the card” and “the party” are all correspond to the same event—a birthday party, so this knowledge allows them to fill some of the gaps in this passage. This also illustrates how reader or listener supports coherence by making his own contribution to the meaning of a discourse.

In their daily life, people often encounter phenomena like this:

*Cognitive Pragmatics Seminar: Wednesday 26th, May 2.00 p.m
Place: The Meeting Hall in the Library
Deirdre Wilson: Department of Phonetics and Linguistics University College London*

Though it is formed by fragmented sentences, it can function as a record of a certain communicative event, that is, the writer informs the seminar to the audience, and the audience receives the message. Therefore it is a discourse. It seems incoherent at the first glance, but people who see it can always understand it. That’s because from the everyday knowledge they know it is a notice to tell them the news of a seminar on cognitive pragmatics given by Deirdre Wilson.

It becomes clear from the above examples that cohesion is not sufficient for constructing a coherent discourse. People also rely on some principle that, although there may by no formal linguistic links connecting contiguous linguistic strings, their continuity leads people to interpret them as connected. In other words there must be some other factor that leads people to distinguish connected discourses that make sense from those that do not. This factor is usually described as coherence.

The key to the concept of coherence is not something that exists in the language, but something that exists in people. It is people who make sense of what they read and listen to. They try to arrive at an interpretation which is in line with their experience of the way the world is. Indeed, people’s ability to make sense of what they read is probably only a small part of that general ability they have to make sense of what they perceive or experience in the world. You may have found when reading the last two examples; the audience kept trying to make the discourse fit some situation or experience that would accommodate all the details. In doing so the audience would necessarily be involved in a process of filling in a lot of gaps which exist in the discourse. He would have to create meaningful connections which are not actually expressed by the words and sentences. This process is not restricted to trying to understand seemingly unconnected discourse. In one way or another, it seems to be involved in people’s interpretation of all discourses.

As to the definition of coherence, different linguists have different insights. Crystal defines coherence as “the main principle of organization (which is) assumed to account for the underlying functional connectedness” of a piece of spoken or written language. (Crystal, 1985, p.53). It can be drawn that coherence involves the study of such factors as the language users’ knowledge of the world, the inferences they make, and the assumptions they hold, and in particular,
The following part will be focused on exploring the nature of discourse coherence.

III. NATURE OF DISCOURSE COHERENCE

In the previous part, the author has studied the concept of cohesion and coherence and the relationship between them. The following part will be focused on exploring the nature of discourse coherence.

Coherence is an important concept in discourse analysis. Linguists hold two different views towards the nature of discourse: discourse as a static product and discourse as a dynamic process. Paralleled with these two views to discourse, coherence has been approached along the two following distinctive perspectives.

Following the discourse-as-product view, linguists study how coherence relations are realized on the surface of discourse—all the linguistic devices used to connect different parts in a discourse. It is an attempt to characterize discourse coherence as a linguistic phenomenon. They define coherence as a visible and observable thing. An analysis along this line is text-based and is featured as descriptive not explanatory. It is mainly concerned with the linguistic realizations of coherent relations, paying little attention to the influence of non-linguistic factors such as context and the actual process of communication. Representatives of this approach are Halliday & Hasan (cohesion), van Dijk (macrostructure), Mann & Thompson (rhetorical structure) as well as Danes and Fries (thematic progression).

The other perspective is discourse-as-process view, which takes discourse coherence as a dynamic process and studies it from pragmatic and psychological aspects. This approach put emphasis on non-linguistic factors. Hu Zhuanglin (1994, p.180-198) discusses the contribution of context, including co-text, situational context and cultural context, to discourse coherence. Pragmatists also explore the role of inference in discourse coherence. Speech Act Theory proposed by J. Austin (1962) and conversational implicature by Grice (1975) provide theories for achieving coherence in seemingly incoherent phenomenon.

The intentions of the participants in communication can also play a crucial role in determining the degree of coherence. Givon (1995) takes coherence as a mental phenomenon.

"Coherence is not an internal property of a written or spoken text, (but) a property of what emerges during speech production and comprehension—the mentally represented text, and in particular the mental processes that partake in constructing that mental representation."

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This approach concerns with how linguistic devices are operated cognitively by participants during the dynamic interactive process to communicate successfully and resulting in a coherent discourse, thus it is interpretive rather than descriptive. Representatives of this approach are Widdowson (A pragmatic perspective), De Beaugrande and Dressler (continuity of senses) and Brown & Yule. (A psychological perspective)

It can be concluded that coherence is a rather complex phenomenon, which concerns with every aspect of the communication process, both verbal and non-verbal. Studies cannot embrace only one of the approaches and ignores the other in that both of them reveal the nature of discourse coherence from different perspectives.

From the coherence-as-linguistic phenomenon point of view, it can be learned that what linguistic devices are functioning and how they are used to organize sentences into a coherent discourse.

Simultaneously, it is quiet not enough to investigate discourse coherence as a static product of communication since communication is a dynamic process of interaction between communicator and audience, during which language serves as a medium.

Therefore, in order to explore the nature of discourse coherence, these two aspects must be combined together. It should not be the case of either/or, but the complementation of each other. It is both a static and dynamic process. A coherent discourse can not only be achieved by linguistic device, but also by mutual efforts of participants in communication. Because of the differences in context and participants’ cognitive abilities, what is to be communicated may take quite different forms. So attention must also be paid to the function of non-verbal factors in the dynamic process of communication.

IV. SUMMARY

This article presents a new perspective to the study of discourse coherence—the cognitive perspective. Discourse can be regarded as the coherent group of sentences or sentence fragment that function as record of a communicative event, whether spoken or written, which can be approached as a dynamic process of interaction between participants in a communicative event. Discourse can be analyzed from two aspects: one is discourse as a static product and the other is discourse as a dynamic process. From the point of view of discourse-as-product, coherence is a linguistic phenomenon, which is realized on the surface of discourse by various linguistic devices used to connect different parts in a discourse. From the point of view of discourse-as-process, coherence is the consequence of interaction between the addresser and addressee, which can be achieved by mutual efforts of both communicator and addressee. However, this is not a pure theoretical study, which can be further applied to discourse teaching. Students should be aware of the fact that discourse coherence not only depends on various linguistic devices, but also the involvement of the interpreter to figure out the implied relevance. Therefore, in discourse comprehension and teaching, both linguistic and non-linguistic factors should be involved.

REFERENCES


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