

## Semantic Relations of English Nominal Anaphora

Yuqing Xu

School of the English Language & Culture, Xiamen University Tan Kah Kee College, Zhangzhou 363105, China

### Abstract

**Anaphora plays an indispensable role in textual cohesion, because it tells us how a text is constructed and arranged. The present paper analyses anaphora from a semantic angle. This paper first introduces the definition and types of anaphora, and then focuses on the discussion of nominal anaphora. By analyzing these English nominal anaphora phenomena, we find out the semantic relations between anaphora components and their antecedents in these sentences, such as synonyms, hyponyms and meronymy. Finally, the paper gets some enlightenment with regard to English teaching and learning.**

### Keywords

**Anaphora; Nominal Anaphora; Semantic Relation.**

### 1. Introduction

Anaphora attracts great attention from linguistics, because it tells us how discourse is constructed and organized. In the early work of Halliday and Hassan (1976 qtd in Botley & McEnery 4-5), they regarded discourse as a semantic unit in the background of systemic functional theory, which was developed by Halliday from J. r. Firth's work. Halliday&Hasan argue that language performs three macro-functions—the “Ideational”, “Experiential” and “Textual” functions. The function of discourse is related to the ways language constructs information and discourse. According to Halliday&Hasan, well-formed texts must display the property of cohesion—that is, they must be semantically well-constructed and coherent linguistic units and cohesion fits into this function as the set of surface means by which texts and messages are constructed as semantically coherent entities. They put forward a detailed classification of the different linguistic markers of English cohesion. Halliday and Hassan call the relationships between two or more meanings in a text cohesion, which usually refers to language units such as pronouns and attributive phrases. They distinguish between “endophora”, and “exophora”. The former antecedent is the text, while the latter antecedent is outside the text. Endophora is further divided into anaphora (backward dependency) and cataphora (forward dependency), Substitution, that is, antecedent directly replaces a closed tag category, and omission, that is, the blank space in one sentence structure may be explained by referring to the components in another sentence.

### 2. Anaphora

#### 2.1. Definition of Anaphora

Anaphora comes from Greek, which means 'upward': that is, pointing to something earlier. Botley& McEnery (5) define anaphora as “a phenomenon where the interpretation of a given meaning depends on the existence in the preceding linguistic context of an expression of the same meaning.” They illustrate this “backward dependence” with a classic example of Halliday and Hassan: washing and coring six cooking apples. Put them in a fire-proof dish. In this example, the plural pronoun they in the second sentence can be interpreted as referring back

to six cooking apples in the first sentence, that is, referring back to tie as them and the antecedent of six cooked apples.

Oxford Concise Dictionary of Linguistics (18) gives a simpler and clearer definition of anaphora, "the relation between a pronoun and another element, in the same or in an earlier sentence that supplies its referent." The dictionary uses an example to illustrate the definition: Mary pretends to be herself, where the reflexive pronoun "herself" is understood as anaphora to Mary: that is, it refers to anyone that Mary refers to. Similarly, in conversation, if A asks 'Where is Mary?' and B says 'She's in the garden', then the meaning of the sentence she said in B should be understood as the anaphora to the previous Mary. The dictionary further points out that other words or phrases besides pronouns can also be anaphora components: for example, in "I asked John, but the idiot wouldn't tell me", an idiot is John's anaphora;

In short, anaphora is the relationship between one word and another word or phrase, is an expression "referring" back to the antecedent.

## 2.2. Types of Anaphora

In English, anaphora can be realized by many different linguistic markers, such as pronouns, demonstrative pronouns, pronominal substitutions or ellipsis. We often use pronouns such as she, he, it, his, her and their to refer to earlier items; We also use demonstrative words such as this, that, and those as anaphora; We replace one lexical item with another lexical item by substitution method, as a substitute for repeating the first lexical item; And ellipsis, also called zero anaphora, is a special case of substitution in which we "substitute" one phrase with nothing.

Zero anaphora is also described as an expression of "anaphora", which provides necessary information for explaining the blank space. The following examples will illustrate some of the different types of anaphora. Anaphors are in italic type.

Anaphora containing pronouns:

- (1) The woman lost track of her little boy at the mall. She became very worried. (Halliday&Hasan's example qtd in Carroll 158)
- (2) A tall woman in a long rustling gown appeared. "Hotchkiss!" she said in a hushed but concerned voice. (Botley& McEnery 2)
- (3) The old woman sat on a kitchen chair trembling and shaking, and warmed her hands against the teapot. (The Washwoman, Unit 4 Text A; 21st Century College English I)
- (4) The woman had a son who was rich. He was ashamed of his mother, and never came to see her. (ibid)

Anaphora containing demonstratives:

- (5) Her fingernails were strangely white. These hands spoke of the stubbornness of mankind, of the will to work not only as one's strength permits but beyond the limits of one's power. (ibid)
- (6) For us the washwoman's absence was a catastrophe. We needed the laundry. We did not even know the woman's address. (ibid)
- (7) I recall from my childhood a girl whose skill on ice skates marked her as "Olympic material." While the rest of us were playing, bicycling, reading and just loafing, this girl skated — every day after school and all weekend. (Turning Failure into Success, Unit 4 Text A; 21st Century College English II)
- (8) "It is no great matter to me," Hotchkiss concluded, "for I had only the wages of my Portland engagement, and that was no great sum, I assure you". (Botley& McEnery 2)

Anaphora containing pronominal substitutions:

(9) About 3,500 anti-Klu Klux Klan demonstrators, some carrying pictures of give persons slain three months ago in a “Death to the Klan” rally, marched through Greensboro Saturday in frigid weather. (ibid)

(10) My computer is too slow. I need to get a faster one. (Halliday&Hasan’s example qtd in Carroll 158)

(11) The human brain contains 10 thousand million cells and each of these may have a thousand connections. Such enormous numbers used to discourage us and cause us to dismiss the possibility of making a machine with human-like ability. (1997.6 CET-4)

(12) The fridge is considered a necessity. It has been so since the 1960s when packaged food first appeared with the label: “store in the refrigerator.”( ibid)

Anaphora involving ellipses: (ellipses marked by 0)

(13) “The Groundhog may be in the hole, but Steeler fans are not 0, Mayor Richard Caliguiri told the crowd... (Botley & McEnery 2)

(14) I wish I had more talent. My sister has a lot more 0 than I do. (Halliday&Hasan’s example qtd in Carroll 158)

(15) We wanted fried fish, but they gave us boiled 0. (Huang 344)

(16) By birth he was an Englishman; by profession, 0 a sailor; by instinct and training, 0 a rebel. (ibid)

### 3. Nominal Anaphora

Pronouns, demonstrative pronouns, pronominal substitutions and ellipses are commonly used methods to connect texts. In this part, we will focus on the examples of English nominal anaphora and analyze some semantic relationships between anaphora and its antecedents, including synonyms, hyponyms and meronymy.

#### 3.1. Synonymy

A synonym is a word which has the same or very similar meaning as another such as boy and lad, lawyer and attorney, cookie and biscuits, underground and subway, etc. Synonyms are used in sentences to achieve cohesion; they also serve function of anaphora. Look as examples from (17) to (20):

(17) Accordingly..., I took leave, and turned to the ascent of the peak. The climb is perfectly easy.... (Halliday&Hasan 278)

(18) Morris Terkeltoyb assured me that his stories were invented, but when I read them I realized they couldn’t be all fantasy. They contained details and odd incidents that only life itself could devise. Besides, I often saw him with elderly people who looked like the characters out of his tales. (Zhu 138)

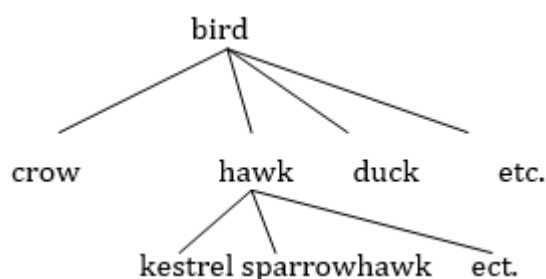
(19) I saw a boy win the spelling bee. The lad was delighted afterward. (Carroll 158)

(20) Three models have been developed to explain these results. The active search logogen and cohort models can each describe some of the findings. (Carroll 127)

In (17), climb and ascent are synonyms; both are nouns and contain meanings of going up. The climb in sentence two refer back to the ascent in the first sentence. In (18), synonyms stories and tales have the same semantic meaning, both refer to Morris Terkeltoyb’s stories. Likewise, we identify that in (19), (20) boy and lad; results and findings are synonyms, lad and findings anaphorically refer back to their antecedents boy and results respectively. From above examples, we may say semantic relations between sentences are connected through synonyms, as Zhu (134) points out, principle of synonyms facilitates construction and understanding of discourse by two or more than two different words which contain similar meanings.

### 3.2. Hyponymy

According to Saeed, hyponymy is a relation of inclusion. A hyponym includes the meaning of a more general word. He uses examples to illustrate: dog and cat are hyponyms of animal; sister and mother are hyponyms of woman. The more general term is called the superordinate while the more specific one is called subordinate, like Figure (1) below:



**Figure 1.** Schematic diagram of the relationship between hyponyms  
(source: Based on Semantics, by John. I. Saeed)

Here kestrel is a hyponym of hawk, and hawk a hyponym of bird. We assume that the relationship is transitive so that kestrel is a hyponym of bird.

There are two situations as for the appearance of hyponyms. One is superordinate word appears first then comes to the subordinate one. Look at the following examples:

(21) He wished for the thousandth time in his life that he had a dog, a golden retriever, maybe, for travels like this and to keep him company at home. (Zhu 169)

(22) Marian had dreams of becoming a musician, a folksinger. (ibid)

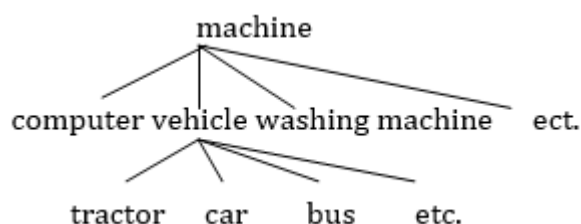
In (21), a dog is a general word; retriever is a kind of dog. In this sentence, retriever anaphorically refers back to dog, the semantic relation between dog and retriever is hyponymy. Also, a musician and a folksinger in (22) also construct intra-sentential hyponymy semantic relations. The other case of hyponymy is the superordinate word comes followed by subordinate one. The following examples are from Lian (185):

(23) The monkey's most extraordinary accomplishment was learning to operate a tractor. By the age of nine, the monkey had learned to solo on the vehicle.

(24) John's bought himself a new Ford. He practically lives in the car.

(25) I don't know where to stay when I arrive in New York, I have never been to that place.

If we identify the semantic relationship between anaphoric noun phrase the vehicle and its antecedent a tractor in (23), firstly, tractor is a vehicle used on farms, for example to pull machines. From the definition we know that tractor is a vehicle. Figure (2) illustrates the clear relationship between tractor and vehicle.



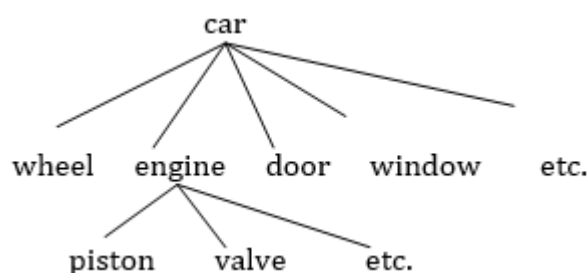
**Figure 2.** Illustrates the clear relationship between tractor and vehicle

From Figure (2), we can clearly see that machine is a superordinate word. In the comparatively large lexical field of machine, computer, vehicle and washing machine are included. Tractor, car and bus belongs to subordinate words of vehicle. Tractor and vehicle are in the same lexical field. Thus we may say tractor is a hyponym of vehicle, and vehicle a hyponym of machine. Similarly, we can infer that in (24), Ford is a hyponym of car since based on common knowledge we know Ford is a car brand, which comes from Ford motor company, a famous motor company, manufactures and distributes automobiles in world markets. The car anaphorically refers back to its antecedent Ford. In (25), the relationship between that place and its antecedent New York is hyponymy, New York is a hyponym of that place. In the semantic field of place, different places from all over the world, no matter big or small ones all belong to this lexical field. From the sentence when I arrive in New York, we believe that here New York can be identified as the famous American city. Direct relationship exists between New York and place in the lexical field of place. Thus we can identify that in sentence (25), the anaphoric determinate noun phrase that place refers back to its antecedent New York.

Definite noun phrases not only have functions of anaphora but also show the semantic relationship, here hyponymy relationship, between the anaphoric elements and their antecedents. Through this connection, readers will be more easily to understand and infer the meaning of sentences. As Jia (1999:179) notes any two lexicons in language can be relevant through direct or indirect relationship in lexical field. The hyponym relationship between lexicons plays a crucial role in inference of antecedents and anaphoric noun phrases.

### 3.3. Meronymy

Besides hyponym relationship between anaphoric noun phrases and their antecedents are identified, another common semantic phenomenon is meronymy According to Saeed (70), who defines meronymy as a term used to describe a part-whole relationship between lexical items. He gives example: cover and page are meronyms of book. The relationship can be described as X is part of Y, or Y has X. Thus we can identify the relationship between page and book as A page is part of a book, or A book has pages. Saeed uses the following Figure (3) to illustrate the hierarchical relationship in the lexicon:



**Figure 3.** The part-whole relationship between parts of car and the general item car  
(source: Based on Semantics, by J. I. Saeed)

This Figure shows the part-whole relationship between parts of car and the general item car. As we know a car has wheel, engine, door, window, etc. Thus, it is true to say Wheel, engine, door and window are part of a car, or A car has wheel, engine, door, window, etc. Thus Wheel, engine, door and window are meronym of car. The Figure shows another more specific example; an engine is divided into piston, valve, etc. Likewise, we may say An engine has piston, valve, etc. Or Piston, valve are part of an engine. The relationship between piston, valve and engine is also part-whole relationship. Piston, valve are meronym of engine.

As 3.1 mentioned, hypomymy is transitive, take machine, vehicle, and tractor for an example, we may say A vehicle is a kind of machine; A tractor is a kind of vehicle; then we infer that A

tractor is a kind of machine. The relationship among them is transitive. Unlike hyponymy, Saeed (70) claims that meronymy differs from hyponymy in transitivity. Hyponymy is always transitive, as we know above, but meronym may or may not. He adopts the following transitive and non-transitive examples to explain: nail as a meronym of finger, and finger of hand. We can see that nail is a meronym of hand, for we can say A hand has nails. Pane is a meronym of window (a window has a pane), and widow of room (a room has a window); but pane is not a meronym of room, for we cannot say A room has a pane. Another non-transitive example is: hole is a meronym of button, and button of shirt, but we can not say that hole is a meronym of shirt.

Example (26) and (27) shows meronymy relationship between anaphoric words and their antecedents.

(26) I walked into a room. The window was broken.

(27) The book is concerned with –a phenomenon which has given rise to a great deal of intellectual activity in several field, notably linguistics, computational linguistics and cognitive science. Not every chapter deals with English only-anaphora in various languages such as Persian, Swedish and Japanese are also examined. (Botley& McEnery 1)

In (26), The window anaphorically refers back to the antecedent room in the first sentence. The semantic relationship between noun phrases the window and the antecedent room does not belong to hyponymy. From daily life experience, we know that window is a part of room or A room has windows. Besides window, a room may have other parts, such as ceiling, floor, wall, door, etc. Thence, the semantic relationship between window and room is meronymy, window is a meronym of room. The window not only functions as anaphora but also form its semantic relationship with its antecedent. Similarly, in (27), chapter in the second sentence refers to chapters of the book in the first sentence. As we know chapter is a part of book. Here the semantic relationship between anaphoric word chapter and its antecedent the book are meronymy; chapter is a meronym of the book.

#### 4. Enlightenment to Teaching and Learning

From above mentioned, we know that one way to achieve discourse cohesion is by synonyms. Actually, synonym is a kind of substitution, which is used quite a lot in English. As Quirk (677) notes, substitution is one of main principles in English writing and speaking. But substitution is merely not repetition, is a device for abbreviating and for avoiding repetition. As we focus on noun synonyms in the present paper, we have some enlightenment in our English teaching and learning. Firstly, we teachers may pay attention to the principle of synonyms in teaching English. Synonyms are not only words containing same or similar meaning; they serve anaphoric functions and aid to get the discourse connected. Secondly, when explaining synonyms to students, the concept of register must not be ignored, whether the word is formal, colloquial or literary. Thirdly, through contrastive methods, teachers can compare Chinese language and English to inform students that English tends to use more substitution than Chinese does, synonyms is a way of substitution. Students need to be encouraged to use proper substitution in their speaking and writing. As students, the awareness of mastering the knowledge of synonyms and properly use substitution can highlight their speaking and writing. Besides synonyms, lexical field is enlightenment to our teaching and learning, it tells us that knowing the semantic relations among words can strengthen our understanding of lexicon and associative method is an effective way to learn vocabulary.

## 5. Conclusion

In conclusion, the present paper discusses phenomenon of anaphora and semantic relations reflected by these anaphora examples. English discourse cohesion can be arrived by many types of anaphora such as pronouns, demonstrative pronouns, pronominal substitutions or ellipses. We focus on nominal anaphora, through analyzing these nominal anaphora examples, semantic relations such as synonymy, hyponymy and meronymy embedded between sentences appear.

## References

- [1] P.H. Matthews: Oxford Concise Dictionary of Linguistics (Oxford University press, U.K. 2014).
- [2] S. Botley , M. M. Anthony. Corpus-based and Computational Approaches to Discourse Anaphora. Vol. 3 vol. 29 (2000).
- [3] D. W. Carroll,: Psychology of Language (Foreign Language Teaching& Research Press, China 2000).
- [4] M.A.K.Halliday,, and R. Hasan: Cohesion in English (Longman Press U.K. 1976).
- [5] R. S. G. Quirk, , G. Leech, et al.: A Grammar of Contemporary English (Longman Press U.K. 1973).
- [6] J. I. Saeed: Semantics (Foreign Language Teaching& Research Press, China 2021).
- [7] Y.D Jia: Chinese Semantics (Peking University Press, China 1999).
- [8] S.N. Lian: A Contrastive Study of English and Chinese Languages (Higher Education Press, China 1997).
- [9] W.G. Pan: A Comparative Outline of Chinese and English (Beijing Language and Culture University Press, China 1997).
- [10] Z.X. Jun, S. T. Zheng: 21st Century College English Reading and Writing Book 1 (Higher Education Press, China 1997).
- [11] Y.S. Zhu, L. X. Zheng, et al.: A Comparative Study of Cohesive Devices in English and Chinese Texts (Shanghai Foreign Language Education Press, China 2001).