LOCAL REFERENCE, GLOBAL REFERENCE, AND PARAGRAPHS

Takeshi Kohno

1. Introduction

Paragraphs have been characterized to date in various ways: in terms of either discourse organization, coherence, or processing. Despite these divergencies, there is a rough consensus such that paragraph boundaries are, at least in part, marked by anaphoric full NPs where pronouns will do. Yet a range of facts indicates that paragraphing and reference with a full NP fulfil distinct pragmatic functions. That is, whereas paragraphing serves to change relevant contexts for interpreting a new set of utterances, reference via a full NP serves to achieve global reference by evoking the entire referential history of the item in question. Section 2 examines some important foregoing approaches to paragraphs along with the concurrent full NPs. In section 3 I expound the function of global coreference attributed to the full NP in contrast with the local coreference performed by an anaphor. Section 4 is devoted to an argument advocating the hierarchical structure of the paragraph.

2. Full NPs as paragraph boundary markers

2.1. Discourse-structure-based account

Fox (1987) accounts for the distinction of pronouns vs. anaphoric full NPs in terms of hierarchical discourse organization. Following the Story Grammar paradigm, she contends that the basic units of a story are constituted by 'background information', an 'initiating event', a 'development' (comprising 'reaction', 'plan', and 'action'), and an 'outcome'. She argues then that 'full NPs are used to demarcate new narrative units', in particular, 'the beginnings of development structures, where the development structure is seen as the major recurring unit in narratives' (p. 168). The following example is provided:

(1)　　She [Ripley] did not see the massive hand reaching out for her from the concealment of deep shadow. But Jones did. He yowled.

Ripley spun, found herself facing the creature. It had been in the shuttle all the time.

Her first thought was for the flamethrower. It lay on the deck next to the crouching alien. She hunted wildly for a placed [sic] to retreat to. There was a small locker nearby. Its door had popped open from the shock of the expanding gas. She started to edge toward it. (Fox 1987:168)

Whereas the first paragraph describes the initiating event, the second depicts Ripley's reaction

to that event; and the third presents the remaining segments of the development. Fox's observation may be perfectly borne out by the use of the full NP *Ripley* in the second paragraph. However, its validity seems to be highly questionable. Aside from difficulties in segmenting a story adequately, it may be almost impossible to confine full NPs to the beginnings of particular narrative constituents, whether developments or otherwise. Another common site for full NPs is near the beginning of a story, where the protagonist very often undergoes reidentification. Observe the following:

> (2)   It's a widely held belief that our society's legal system coddles criminals. But that's not always so. Society can be pretty tough on some wrongdoers.
>
> Just consider the case of Kathryn Ann Entress, who recently got in trouble with the law.
>
> At first glance, you wouldn't think that *Miss Entress*, thirty-seven, was capable of committing a crime. Or at second and third glance. (Royko 1984: 75)

In (2), *Miss Entress* in the third paragraph identifies further the referent of *Kathryn Ann Entress*, which has been newly introduced in the second paragraph. This sort of reidentification is motivated in order to establish a protagonist efficiently at a very early part of a story. This fact, among others, suggests the existence of a more embracing underlying principle governing the use of anaphoric full NPs.

2.2. Coherence-based account

Giora (1998) acknowledges that full NPs mark not only segment-initial boundaries but also segment-final boundaries. Based on the theory of coherence, she assumes that 'segmentation occurs either before or immediately after the introduction of a new segment topic', that is, 'the most informative but still relevant message in a given segment' (p. 81). The following example is offered for illustration:

> (3)   It has often occurred in the history of science that an important discovery was come upon by chance. A scientist looking into one matter unexpectedly came upon another which was far more important than the one he was looking into. Penicillin is a result of such a discovery.
>
> Penicillin was accidentally discovered by Fleming in 1928 ... (Giora 1998: 81)

In (3) the second paragraph 'is formally marked so as to warn comprehenders against processing this new paragraph in relation to the previous paragraph topic' (p. 83). It is not always clear whether a paragraph-final utterance represents a new segment topic rather than an expansion of the ongoing segment topic. It is the relationship, both semantic and formal, between the utterance and the initial utterance in the following paragraph which identifies a particular segment topichood. Thus, in (3), the final utterance in the first paragraph can be taken as a new segment topic by virtue of its relationship with the following paragraph-initial utterance, namely the total inclusion of the content of the preceding utterance as the topic.

The causes of paragraphing are more varied, in reality. Paragraph breaks may even occur between strongly continuous utterances, as in (4), cited from Stark (1988):

(4)   The Getty tells us that we were never any better than we are and will never be any
       better than we were, and in so doing makes a profoundly unpopular political statement.
          The Getty's founder may or may not have had some such statement in mind. In a
       way he seems to have wanted only to do something no one else could or would do. In
       his posthumous book, *As I See It*, he advises us that he never wanted "one of those
       concrete-bunker-type structures that are the fad among musuam [sic] architects."...
       (Stark 1988 : 291-292)

Although the second utterance is intimately connected with the first, it may require a separate paragraph because of the following sequence of subordinates, which otherwise may render the segment disproportionately weighty. Nonetheless, note the effective use of the full NP *The Getty('s)* as the paragraph boundary here.

2.3. *Processing-based account*

Chafe (1987, 1994) sheds new light on the cognitive processes involved in producing and understanding discourse. A 'concept' (encompassing the idea of an object, event, and property), he assumes, may occupy any one of three states of activation at a particular time: active, semi-active, or inactive. An active concept, i.e. given information, is one that is in a person's focus of consciousness; a semi-active concept, or accessible information, is one that is in his peripheral consciousness; and an inactive concept, i.e. new information, is one that is currently in his long-term memory. Each concept may shift its activation state as the utterance unfolds itself. More concretely, the semi-active or inactive concept may be subject to activation, while conversely the active concept may be rendered deactivated. Immediately relevant to these processes is the function of paragraphing. Paragraph boundaries, marked orally by unusually long pauses or orthographically by indentation or blank lines, are best regarded as 'the change points for the semi-active state' (Chafe 1987 : 43) which may lead to significant shifts in discourse organization. Granted that paragraphing partakes in deactivating the concepts already manifest in the prior paragraph, occurrences of anaphoric full NPs at the outset of paragraphs nonetheless seem curious, since those weakly stressed NPs are treated, in Chafe's analysis, as active. Hence Chafe's framework must admit that the concept of the second occurrence of *Penicillin* in (3), for example, remains active irrespective of the intervening paragraph boundary which is supposed to trigger deactivation (i.e. a shift to the semi-active state).[1] In Chafe's framework, therefore, it becomes difficult to maintain the view of anaphoric full NPs as paragraph boundary markers, because the paragraph's function of deactivation and the full NP's function of reactivation never converge.

A similar cognitive view is held by Hofmann (1989), who claims that 'the speaker/author writes on a blackboard in his addressee's mind—perhaps the so-called temporary memory—& [sic] before it gets too full, he should indicate to his addressee to save what he wants in

longer-term memory & [sic] to erase the blackboard for something more' (p. 243). He goes on to argue that the paragraph break achieves this goal, and, significantly, that it thus acts as a barrier to anaphora. While assuming that paragraphs are tightly associated with nonanaphoric NPs, Hofmann pays due attention to exceptional cases. An 'incomplete paragraph break' may tolerate a 'bridging pronoun' at the beginning of a new paragraph, if the antecedent designates the topic of the preceding paragraph. However, as we have discussed above concerning Giora's (1998) observations, unequivocal means of identifying paragraph topics is a prerequisite for this explanation.

2.4. Relevance-based account

The relevance-theoretic concept of paragraphs by Unger (1996) and Wilson (1998) is in great consonance with the Chafe-cum-Hofmann approach which was examined above. The principle of relevance comprises the condition of reasonable contextual effects derivable from an utterance and the condition of minimal processing cost involved, of which paragraphing has directly to do with the second condition. The addressee is expected to interpret an utterance by using the contextual information fed, at least in part, by the immediately preceding utterance. But at times there arise cases, as at discourse segment boundaries, where the immediately accessible contextual information alone cannot be expected to yield enough contextual effects. It is in these cases that paragraph boundary cues such as full NPs or long pauses come into play to 'save the addressee wasted effort by alerting him to the fact that a switch in contexts is about to take place' (Wilson 1998 : 71). In other words, the paragraph markers contribute a great deal to building up the addressee's readiness for interpreting a new stretch of utterances in the new paragraph in more extensive contexts than the immediately available one provided by the last utterance in the adjacent paragraph. Before concluding my review of the relevance-theoretic account of the paragraph, I claim that the context-switching function of the paragraph thus identified can be taken for granted, but that it remains to be seen whether or not the full NP, which at first sight might appear to be a sure sign of the paragraph, really underscores this function.

3. Local versus Global Reference

More elaborate observation of the use of full NPs will bring to light their multifarious functions besides the function of paragraph marking concerning the 'focus' shift (or topic shift), referent establishment, and manifestation of the speaker's affectiveness. The question then is whether the full NP's paragraph marking function is a separate one or instead merely a contextually specialized effect of some unitary function. I pursue the latter option and maintain that the full NP's general function lies in global coreference of the NP in question.

To begin with, let us observe the role of full NPs regarding the focus in an utterance. Compare the following examples :

(5)　a. Susan gave Betsy a pet hamster.

  b. She reminded her that such hamsters were quite shy.

  c. She asked Betsy whether she liked the gift.

(6) a. Susan gave Betsy a pet hamster.

  b. She reminded her that such hamsters were quite shy.

  c. Betsy told her that she liked the gift.

(7) a. Susan gave Betsy a pet hamster.

  b. She reminded her that such hamsters were quite shy.

  c. ?#Susan asked her whether she liked the gift.

(8) a. Susan gave Betsy a pet hamster.

  b. She reminded her that such hamsters were quite shy.

  c. #She told Susan that she liked the gift.

<div align="right">(Grosz, Joshi, and Weinstein 1986)</div>

Three principles are deducible from the above examples. First, (6) and (8) together show that the full NP is obligatory for designating the new focus when a focus exchange takes place between a pair of NPs in an utterance, so that one NP is promoted to the focus while the other is defocused. Second, as is clear from (7), reactivation of the focus via the full NP at a later part of a single discourse segment is prohibited. Recall here that (7c) becomes perfectly acceptable if *Susan* is replaced by *She*. Third, as in (5c) and (6c), the full NP is optionally used in non-focal position irrespective of its prior cognitive status. Although the full NPs in (5)−(8) satisfy these three conditions in different ways, they share the property of reactivating an entity which is already salient. There is every reason to renew the addressee's awareness of an entity if the entity is the object of either a drastic focus change, as in the focus exchange, or highlighting in a position of relatively low salience, as in non-focal reactivation.

 Is it not the case that this focus-related reactivation has something to do with full referent specification at a paragraph boundary? Definitely yes. Contrary to the superficial disparity, they seem to be subsumed under the same general function. It seems fully justifiable to regard the factor of paragraph position as contingent, so I concentrate for the moment on the full NP's role of reactivation, which seems essential. We can now proceed to ask what is peculiar to reference via a full NP in contrast with reference via a pronoun. As an initial step to answer this question, observe (5) and (6) again. In (5a) and (6a), Susan and Betsy are activated; in (5b) and (6b) their statuses of activation are maintained with pronouns. In (5c), Susan remains activated in the pronominal form, whereas Betsy is reactivated in the full NP. In (6c), the same processes operate, though in reverse sentence positions.

 In view of the behaviors of these full NPs and pronouns, among others, I claim that, as far as pragmatics is concerned, reference is to be split into two types: the global and the local reference. The local reference is attributed to an anaphor, whose job is simply to sustain the current state of activation by making reference to the nearest antecedent NP. The global reference, ascribed to a full NP, goes beyond mere reference. By virtue of referring to the original identification, it evokes the entire history of its reference throughout a given text.[2] The global

reference thus retrieves the overall stages of textual magnifications that the NP under consideration has undergone so far. In other words, whenever the anaphoric full NP is employed, it highlights its anaphoric ties in the text across-the-board. The effect of *Betsy* as the new focus in (6c) will be clearly tangible, since alternative reference with a pronoun is ruled out. The influence of the global reference of the object NP in (5c) may not be as great as the subject NP in (6c), but it nonetheless brings the NP's referential ties to the fore.

The global reference is also efficient in referent establishment, which appears at an early phase of a discourse segment, as in what follows, where (2) is repeated as (9):

(9)   It's a widely held belief that our society's legal system coddles criminals. But that's not always so. Society can be pretty tough on some wrongdoers.

Just consider the case of Kathryn Ann Entress, who recently got in trouble with the law.

At first glance, you wouldn't think that *Miss Entress*, thirty-seven, was capable of committing a crime. Or at second and third glance. (Royko 1984 : 75)

(10)   Loneliness is the great American epidemic. More than any disease it insinuates itself into the lives of people wealthy and poor, old and young. It is an affliction of which people are ashamed; they are willing to admit almost anything before they will admit they are lonely.

It makes itself known in many ways, and probably no way is seen more graphically than Audrey Loehr sees it.

Mrs. Loehr is sixty-two years old; she is an employee of one of the giant oil companies——a company with its name on the pumps of gas stations all over the world.

Mrs. Loehr lives and works in Tulsa. Her job is a simple one. (Greene 1983 : 2)

What is noticeable about the first anaphoric full NPs in (9) and (10) is their immediate occurrences after the introduction of their respective antecedents in the adjacent utterances. In these cases the establishment of the protagonists' identification is imminently needed, and hence the anaphoric NPs will be required to strengthen the associations with their antecedents. This explains why pronouns sound odd at these loci. The repetitive use of *Mrs. Loehr* in the fourth paragraph in (10) is a further demonstration of global reference. It successfully retrieves the description about Mrs. Loehr elaborated in the immediately preceding paragraph together with the initial characterization.

Another major area of the global reference rests on the full NPs aimed to convey the speaker's mental attitude. The following will illustrate the point:

(11)   She has one great fear. She has lived all these years with him in the house. She wonders what would happen to *Ira* if she and her husband were to die before *Ira* did. (Greene 1983 : 34-35)

(12)   Louise was as good as her word. A date was fixed, a trousseau of great magnificence was ordered, and invitations were issued. Iris and the very good lad were radiant. On the wedding-day, at ten o'clock in the morning, *Louise*, that devilish woman, had

one of her heart attacks——and died. She died gently forgiving Iris for having killed her. (Maugham 1976 : 91)

(11) is a part of a story about Ira, twenty-nine, who is suffering from severe brain damage and hence needs constant care. The last utterance represents the indirect speech of the mother's thought. The recursive use of the proper noun in this single utterance is strongly indicative of the addressor's (the writer's as well as the mother's) emotional involvement in Ira's pitiful state of affairs. The reference with *Ira* implicates 'Ira qua Ira', or 'Ira as a helpless man' (cf. Bolinger 1979). More generally, the reference via a full NP expresses 'the entity X characterized thus far in the text'. The existence of this sort of affective element is transparent in (12), in which the appositive *that devilish woman* redundantly recapitulates the whole aspect of Louise's being, as a burden to her family due to her weak heart, which is what this story is about.

Downing (1996) argues that proper names convey a speaker's general stance toward the topic of talk reflecting the 'territories of information', in Kamio's (1994) terminology. The bare proper name, Downing assumes, stands for a referent which belongs to the information territory shared by both the speaker and hearer. The proper name with a modifier such as the demonstrative *this*, on the other hand, marks that the referent belongs to the addressee's territory rather than the speaker's. Consider more concretely now how these distinct affiliations of information may lead to different attitudes in the speaker's mind.

(13)　Rich : Those'r Alex's tanks weren't they?
　　　 Vic : Podn' me?
　　　 Rich : Weren't didn' they belong tuh *Alex*?
　　　 Vic : No, *Alex* ha(s) no tanks *Alex* is tryintuh buy my tank.　　　 (Downing 1996 : 134)

(14)　How do you get on with *this fellow Hart*? I mean he's a nice fellow normally, but he's [⟨X a hell of a X⟩...] he's a big head in some ways. (ibid., 132)

In (13), contextualized in a dispute, 'Vic's use of *Alex* here displays his authority to be making a claim about information that belongs primarily to Alex's territory, although it has been claimed by Rich in his previous utterance' (p. 134). The modified proper name *this fellow Hart* in (14) operates in the opposite fashion. It serves to build up a psychological distance from Hart as a result of abdicating authority. That is, the speaker pretends to be less authoritative than the addressee with respect to the territorial affiliation of this particular person. Underlying those specific contextually driven mental attitudes is an evocation of a sequence of referents associated with each full NP.

The full NP's role of global reference is further corroborated by syntactically marked constructions such as inversion and *it*-clefts. Let us concentrate on inversion first. The inversion is a reordering around the verb (or the tense-bearing auxiliary) such that the post-verbal element is moved to the beginning of the sentence and concomitantly the subject is postposed. Illustrative examples are provided below :

(15)　Yes, this is no ordinary general election.

'Evans is a Democrat; Daley is a Democrat. Different Democrats have different points of view about the city of Chicago and its politics,' Jackson noted. 'The war between forces within the party continues, and within our coalition.'

Standing in the middle of it all is *Jesse Jackson*. (Birner 1994 : 241)

(16) 'Warren?' came a female voice. 'Is that you?'

'Your guest has arrived, Mrs. Farb,' he called.

'I'm in here,' the voice said.

I walked into a den. Sitting on a couch, holding a TV channel changer, was *Carolyn Farb*, in a perfectly tailored jacket and pants. (Greene 1985 : 73-74)

Inversion, as in (15) and (16) above, is a rhetorical device to present a piece of foreground information which is supposed to achieve greater contextual effects, exploiting the message denoted by the preposed element and the verb as background information. Not only does inversion magnify contextual effects but it also expresses the speaker's guarantee that it has the maximal contextual effects on the hearer's cognitive environments (see Kohno 1999). This means that inversion always conveys the speaker's emotional involvement in the affairs described. Thus, the speaker in (15) intends to remind the hearer that the fact that Jesse Jackson is the very person that is in the middle of the strife is extremely important for the recognition of the state of affairs. The speaker's mental attitude towards the utterance may be roughly equivalent to 'ironically', 'understandably', or 'significantly'. (16) is a passage about the author's visit to a woman called Carolyn Farb, who was known as the 'queen of closets.' The appearance of this woman constitutes an important part of his visit, which might lead to an anticipated tour of the closet he has been preoccupied with. The first memorable sight of her, then, is depicted as a particularly remarkable experience for him. It is worthwhile to note the efficient use of the full NPs here. The global reference with the full NP in (15) is reminiscent of the sense 'Jesse Jackson qua Jesse Jackson', whereas that in (16) participates in reactivating *Carolyn Farb* for referent establishment.

It-clefts likewise tolerate full NPs appearing within them. As argued in Kohno (1998), *it*-clefts constitute another class of constructions which pertain to relevance modality. The following intriguing concrete examples deserve scrutiny:

(17) C.B. : So who's Barbara?

B.S. : Let me put it this way. When you last saw me with anyone, it was *Barbara* I was with. (Prince 1978 : 897)

(18) A : Why do you think John is the murderer?

B : Because it's *John* who the victim was blackmailing. It's *John* who was heard to threaten him. It's *John* who lacks an alibi. It's *John* whose fingerprints were on the murder weapon. And it's even *John* who inherits the money! (Hedberg 1990 : 204)

What is striking about the anaphoric full NPs in (17) and (18) is the proximity to their respective antecedents: the antecedents of the second full NPs *Barbara* and *John* appear in the

respective preceding questions, and those of the third and later occurrences of John in (18) each occupy the adjacent utterances. The repeated references with these full NPs explain the resultant prominent expressivity. When the relevance modality is absent in a neutral context, however, pronominal forms will suffice, as in 'the one I was with was her' or 'he was the person who the victim was blackmailing'.[3]

4. Paragraphs as hierarchical units

It may be worthwhile in this connection to see whether or not paragraphs attest to hierarchical discourse structure. Let us focus on the 'scope' of the discourse connective *therefore*. Advocating a relevance-theoretic approach to paragraphs, Unger (1996) observes that the scope of *therefore* can be global or local depending on whether the utterance embracing the connective occupies the paragraph-initial position or otherwise. More specifically, paragraph-initially, this connective is more likely to induce global scope, coextensive with the whole preceding paragraph rather than the immediately preceding utterance, while elsewhere it is inclined to induce local scope, involving only the adjacent utterance. This fact is firmly indicative of a paragraph as a discourse unit of some sort.

This is not the whole story, however. In conflict with this seemingly general pattern there exists an aberrant case where, awkwardly, the connective *so*, comparable to *therefore* above, in initiating a paragraph seems to require a narrow scope reading. Unger's illustrative example follows :

(19)   One spinoff of it was that I got to meet a few Estonian scholars and I brought back some of their linguistic materials. In particular, I have a copy of a thesis by [...]. The thesis, however, is written in Estonian and is therefore inaccessible to me. I would like for Kulvi to look at it and then see if we can make some kind of an arrangement for either translating it into English, or, at least, make some kind of English summary of its contents [sic]

So I wonder if it might be possible for me to drop by and visit you folks when I get to England.... (Unger 1996 : 434)

His relevance-theoretic account of the connective in question goes as in (20).

(20)   *Sample analysis of* so *in* (19) [Unger's (17)]
    (a) (premise) If someone wants to make arrangements with a person for translating a thesis, then he wonders if it is possible to meet with this person to make arrangements.
    (b) (premise) The writer of the letter wants to make arrangements with the addressee of the letter.
    (c) (conclusion) The writer wonders if it might be possible to meet with the addressee of the letter. (ibid.)

Unger takes advantage of this marked scope in his argument against the paragraph as a hier-

archical unit. He seems to maintain that a paragraph boundary cannot be conceived as a solid barrier which never fails to prevent two consecutive utterances from being connected intimately with each other. Is this assumption of his tenable? Beyond doubt no. The reason is straightforward : if such were the case, then the grounds for building a separate paragraph in (19) would be completely nullified. This is tantamount to saying that paragraphing of this sort is nothing more than a whim of the writer. To me the device of textual organization using *so* seems more meaningful. The consequent utterance headed by *so* conveying the addressor's request for visiting the addressee is to be associated more aptly with the antecedent such that he wants to visit him for a specific purpose than with the embedded proposition such that he wants to make arrangements with the other person for translating a thesis. I therefore propose an alternative analysis of *so* in (19) as follows :

(21)   (a) (premise) If someone wants to visit someone for a specific purpose, then he asks the other's permission to visit him.
       (b) (premise) The addressor of the letter wants to visit the addressee for the purpose of making arrangements with him for translating a thesis.
       (c) (conclusion) The addressor of the letter asks the addressee's permission to visit him.

It may be significant to note that the consequent utterance, with the connective deleted, can be reordered felicitously at the beginning of this letter, thus corroborating the fact that, contra Unger, the antecedent of this utterance cannot be confined solely to the last utterance of the original first paragraph. Thus the unity of the paragraph can be rescued. Indeed, it is a paragraph boundary which indicates not only a change of context, which pertains more or less to linear organization of discourse, but also a link of a new paragraph with a higher discourse segment, which doubtless pertains to hierarchical organization. Paragraphings are plainly all-or-nothing phenomena, granted that the logico-semantic relationships between them might be painfully obscure and intertwined. Each paragraph either creates anew or makes transparent the relationship with the prior discourse segment of appropriate hierarchical order. What should be stressed again, finally, is that the foregoing segment a current paragraph is cohesive with (i.e. coordinate with, or subordinate/ superordinate to) need not necessarily be the prior adjacent paragraph, but can be a more extensive unit embracing it (cf. Longacre 1979, Samet & Schank 1984, and Hobbs 1990).

5. Conclusion

It has become clear that underlying the full NP's specific role of a focus shift, referent establishment, or implementation of affectivity is the general function of global reference, which, by virtue of referring to the original identification of the NP, evokes the entire history of its reference throughout a given text. Unlike local reference via a pronoun, the global reference usually bears an implication of 'X qua X' (where X designates the referent of a full NP) or 'the entity X characterized thus far in the text'. On the other hand, paragraphs participate in discourse organization on their own. Besides its context-changing function, the paragraph either

creates anew or makes explicit the relationship to the prior discourse segment of whatever hierarchical order.

The question now is why a full NP is so often characterized as a paragraph boundary indicator. Should we dismiss the observation as utterly pointless? Ultimately yes, with one proviso: that a full NP and a paragraph may supplement each other in developing a text. It may be a natural line of thinking to assume that, other conditions being equal, referential ties become more necessary at a segment boundary than elsewhere in order to compensate for the boundary's dissecting force. The full NP is called for so that it may strengthen a referential tie with its antecedent(s) for the sake of tracking the full phase of its reference. Yet the paragraph boundary is not a prerequisite for the use of the full NP. Coreferential full NPs may recur within a narrow stretch of paragraph-internal discourse when a new referent is being established or when the speaker's emotional involvement is dominant. Altogether, global reference via a full NP and paragraphing are engaged in independent and, in a sense, opposite processes of yielding either global continuity or local discontinuity in discourse.

Notes

*I would like to express my thanks to Deirdre Wilson and Ronald W. Thornton for their profitable comments and discussions.

[1] Consider now how full NPs behave in the alternative paragraphing in which the utterance 'Penicillin is a result of such a discovery' occupies the initial position of the second paragraph. As predicted, the first mention of Penicillin is made in a full NP since it designates brand-new information. Interestingly, when Penicillin is referred to subsequently, it can be either in a full NP or in a pronoun, the former being preferred. This preference for the full NP over the pronoun requires separate explanation. It is clear, however, that Chafe's notion of the subject as a 'starting point' for further information in an utterance falls short, simply because there is no change of subjects between the two consecutive utterances which renders the appearance of a full NP more felicitous.

[2] As Deirdre Wilson pointed out to me, a full NP may have a more general function of enabling the hearer to access the relevant conceptual address, which provides 'access in turn to a range of associated encyclopaedic entries' (Sperber & Wilson 1986: 206). A pronominal, in contrast, is not associated with a concept, and thus serves as 'simply a key to a concept and a context which have their source either in the previous discourse or in the situation of utterance' (Blakemore 1992: 70).

[3] In an utterance of the form 'X be Y', which serves to identify the X, the predicate nominal Y obligatorily requires a focal stress. So *her* in 'the one I was with was her' is heavily stressed in spite of its being pronominal. It is simply taken for granted for the purposes of current discussion that stressed pronouns behave like full NPs.

References

Ariel, Mira. 1988. Referring and accessibility. Journal of Linguistics 24, 65-87.
Birner, Betty J. 1994. Information status and word order. Language 70, 233-259.
Blakemore, Diane. 1992. Understanding utterances. Oxford: Blackwell.
Bolinger, Dwight. 1979. Pronouns in discourse. Syntax and semantics 12: Discourse and syntax, ed. by Talmy Givón, 289-309. New York: Academic Press.
Brown, Gillian, and George Yule. 1983. Discourse analysis. Cambridge: Cambridge University Press.
Chafe, Wallace. 1987. Cognitive constraints on information flow. Coherence and grounding in discourse, ed. by Russell S. Tomlin, 21-51. Amsterdam: John Benjamins.

Chafe, Wallace. 1994. Discourse, consciousness, and time. Chicago: The University of Chicago Press.

Downing, Pamela A. 1996. Proper names as a referential option in English conversation. Studies in anaphora, ed. by Barbara Fox, 95-143. Amsterdam: John Benjamins.

Fox, Barbara A. 1987. Anaphora in popular written English narratives. Coherence and grounding in discourse, ed. by Russell S. Tomlin, 157-174. Amsterdam: John Benjamins.

Giora, Rachel. 1997. Discourse coherence and theory of relevance: Stumbling blocks in search of a unified theory. Journal of Pragmatics 27, 17-34.

Giora, Rachel. 1998. Discourse coherence is an independent notion: A reply to Deirdre Wilson. Journal of Pragmatics 29, 75-86.

Green, Georgia M. 1980. Some wherefores of English inversions. Language56, 582-601.

Greene, Bob (ed. with notes by Takao Taguchi and Masao Yamamoto). 1983. Bob Greene's eye for America. Tokyo: Nan'un-do.

Greene, Bob. 1985. Cheeseburgers. Tokyo: Kodansha.

Grosz, Barbara J., and Candace L. Sidner. 1986. Attention, intention, and the structure of discourse. Computational Linguistics 12.3, 175-204.

Gundell, Jeanette K., Nancy Hedberg, and Ron Zacharsky. 1993. Cognitive status and the form of referring expressions in discourse. Language 69, 274-307.

Gundell, Jeanette K. 1998. Centering theory and the givenness hierarchy: Toward a synthesis. Centering theory in discourse, ed. by Marilyn A. Walker, Aravind K. Joshi, and Ellen F. Prince, 183-198. Oxford: Oxford University Press.

Halliday, M. A. K., and Ruqaia Hasan. 1976. Cohesion in English. London: Longman.

Hedberg, Nancy A. 1990. Discourse pragmatics and cleft sentences in English. Unpublished Ph.D. dissertation, University of Minnesota.

Hobbs, Jerry R. 1990. Literature and cognition. Stanford: CSLI Publications.

Hofmann, Thomas R. 1989. Paragraphs, & anaphora. Journal of Pragmatics 13, 239-250.

Kamio, Akio. 1994. The theory of territory of information: The case of Japanese. Journal of Pragmatics 21, 67-100.

Kohno, Takeshi. 1994. Relevance and intonation. Otsuma Review 27, 75-89.

Kohno, Takeshi. 1998. Relevance properties of clefts. Papers commemorating the thirtieth anniversary of Department of Literature, Otsuma Women's University, 289-306.

Kohno, Takeshi. 1999. Relevance properties of English inversion. Linguistics: In search of the human mind——A festschrift for Kazuko Inoue, ed. by Masatake Muraki and Enoch Iwamoto. Tokyo: Kaitaku-sha.

Longacre, R. E. 1979. The paragraph as a grammatical unit. Syntax and semantics 12: Discourse and syntax, ed. by Talmy Givón, 115-134. New York: Academic Press.

Lyons, John. 1979. Deixis and anaphora. The development of conversation and discourse, ed. by Terry Myers, 88-103. Edinburgh: Edinburgh University Press.

Maugham, W. S. (ed. with notes by Hidebumi Tanaka and Koozoo Yokoyama) 1976. Louise. Modern short stories, 81-91. Tokyo: Seibido.

Prince, Ellen F. 1978. A comparison of it-clefts and WH-clefts in discourse. Language 54, 883-940.

Royko, Mike (ed. with notes by Koichi Yoneda and Gary B. Rodgers). 1984. Dr. Kookie, you're right! Tokyo: Yumi Press.

Samet, Jerry, and Roger Schank. 1984. Coherence and connectivity. Linguistics and Philosophy 7, 57-82.

Sperber, Dan, and Deirdre Wilson. 1986. Relevance: Communication and cognition. Oxford: Basil Blackwell.

Stark, Heather A. 1988. What do paragraph markings do? Discourse Processes 11, 275-303.

Unger, Christoph. 1996. The scope of discourse connectives: Implications for discourse organization. Journal of Linguistics 32, 403-438.

Wilson, Deirdre. 1998. Discourse, coherence and relevance: A reply to Rachel Giora. Journal of Pragmatics 29, 57-74.