On Demonstratives \textit{KO/SO/A} in Japanese

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1. Introduction

This paper discusses the functions of \textit{KO/SO/A}, i.e. the Japanese demonstratives whose initial syllable is \textit{ko}, \textit{so}, or \textit{a}\footnote{The author followed the traditional terminology used by Sakuma 1966. Demonstratives beginning with \textit{ko}, \textit{so}, and \textit{a} are hereafter represented by \textit{KO}, \textit{SO}, and \textit{A}, respectively.}. In Sections 2 and 3, demonstratives are classified into subcategories, each of which is defined by means of a memory model. Sections 4–6 explain the difference between \textit{KO}, \textit{SO}, and \textit{A} as deixis and anaphora. In Section 7, an attempt is made to explain anaphoric usage based on deictic usage.

2. Reference and substitution

Most linguistic forms have abstract meanings, applicable to any entity included in the set they represent. Using this abstractness, language can express unlimited situations in terms of a limited vocabulary and grammar (Barwise & Perry 1983: 32). However, a linguistic device is needed to mark a linguistic form whenever it is cohesive and should be interpreted on the basis of the text or on the basis of the situation of utterance. Demonstratives serve as such devices.

The term \textit{cohesion}, a key concept in understanding textuality, has often been used too loosely, covering virtually any relationship, either semantic or textual, where one form is somehow related to
another (Halliday & Hasan 1976: 4). The present paper focuses on cohesion either as reference or substitution, adopting the following working definition for these terms:

Reference occurs when the extension of the referent is interpreted on the basis of the text or the situation of utterance.

Substitution occurs when the intension of the referent is interpreted on the basis of the text or the situation of utterance.

Substitution is exemplified by *the red one* meaning *the red cap* when it is uttered at a hatter's shop, while reference in the same situation is, e.g. *that cap*.

Japanese pronominals\(^2\) which indicate reference are the *KO/ SO/A* pronouns (see Table 1 in Section 4), the non-inflectional adjectives *kono/sono/ano* + noun phrase, personal pronouns, zero pronouns, paraphrase, reiteration\(^3\), and expressions for order and sameness, i.e. the adjective *onaji* + noun phrase, ordinal number, and words with the prefixes *zen-, kō-, tō-, hon-, dō-* (the former, the latter, the... concerned, this, the same). Reference is also indicated by the pro-adjectives *konna/sonna/anna*, the pro-adverbs *kō/ sō/ā, konnani/sonnani/annani*, and the pro-clause *kō/ sō/ā*.

The forms for substitution are pronominals (adjective + nominalizer *no*, numerals, zero pronouns, and *sore*), pro-verbs (*sō suru* and zero pro-verbs), a pro-clause (*sō*), and the adjective *onaji*.

Since *KO/SO/A* are used to indicate reference in most cases, this paper will focus on this function.

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2) Pronominals, pro-adjectives, pro-adverbs, pro-verbs and pro-clauses are abbreviated forms which function in the same way as noun phrases, adjective phrases, adverb phrases, verb phrases and clauses, respectively.

3) In Japanese, reiteration occurs more frequently and paraphrase less frequently compared to English.
3. Classification of reference

3.1. Hierarchical memory model

A hierarchical memory model can be adopted to explain a variety of demonstratives (Fûto 1985). In this paper, a memory model with two major components is assumed: discourse memory (DM) and long-term memory (LTM). All experiences, including linguistic ones, can be understood by consulting the knowledge contained in LTM, and are temporarily stored in DM. The experience processed and stored in DM is more likely to be represented in a frame or network rather than in a linguistic expression. LTM consists of world knowledge and linguistic knowledge. World knowledge is an accumulation of schemata, i.e. structures providing prototypical knowledge about the universe whenever no specifications are given. For example, there are schemata in LTM which inform us that a room usually has four walls, a door, some furniture in it, etc., and that it is polite to knock at the door of the room one is about to enter when it is thought to be occupied by another. By reference to this knowledge we interpret the following sentence as John having knocked at the door of the very room he intended to enter and at no other door:

1. Before John entered the room he knocked at the door.

Linguistic knowledge contains all syntactic, semantic, and pragmatic information, including a lexicon. See Figure 1 for relationships between the components of the memory model.

Of the experiences processed and stored in DM, less salient events such as ordinary routines fade out as time goes by, leaving behind memorable experiences. Some of them, either lacking in or inconsistent with world knowledge, are used to augment and correct it. At this point learning occurs. Among other experiences are those which inform us about specific entities and events in a particular situation. For example, besides there being walls, a door,
and furniture in a room (these pieces of knowledge are contained in LTM), we have a remembrance of how rooms in our house and office are specifically accommodated, and make use of this knowledge in our everyday life. Let us assume that this kind of information is transferred from DM to episodic memory (EM), a component closely connected with world knowledge in LTM but independent of LTM, and stored there.

3.2. Direct and indirect reference

Reference is divided into direct and indirect reference, which are defined here in terms of the memory model given above:

Direct reference occurs where a referent is identified by consulting either the outside world, episodic memory, or discourse memory.

Indirect reference occurs where a referent is identified by consulting long-term memory.

Direct reference is that kind of reference whose identification depends on the spatio-temporal coordinates of the situation of utterance (i.e. where and when it is spoken), while indirect reference is not. Let us subdivide direct reference into deixis and anaphora, and indirect reference into unique and generic reference. The hierarchy is shown in Figure 2. This classification is assumed
Figure 2. Reference hierarchy

to be universal.

Unique reference is the case where a referent is not chosen, as in direct reference, from more than one candidates in the situation of utterance, but is identified on the basis of world knowledge in LTM. See example 2 (Schank & Abelson 1977: 38):

2. John went to a restaurant. He asked the waitress for coq au vin.

Here waitress is modified by the definite article, because the hearer is assumed to know that there are waitresses in a restaurant and that they give their customers a certain service. This knowledge (a "script" in Schank & Abelson's terminology) is connected with the word restaurant, and has introduced the waitress before she is explicitly mentioned. In this paper, this kind of knowledge is called a schema.

The following sentence, when uttered at a small town with only one hospital, provides another example.

3. Byōin e iku.

hospital to (I, we, etc.) go

I'm/We're going to the hospital.

4) More specifically, the definite article is permitted here due to the following two factors: one is that the waitress has already been introduced implicitly. The other is that John is assumed to have no more interest in her than as a server.
Since for the inhabitants in the town there is a single referent for the word hospital, its identification does not depend on the spatio-temporal coordinates of the situation of utterance, but depends on a schema in LTM common to them, which tells them where to go when they are ill.

The sentences below exemplify a case of generic reference, which is another subcategory of indirect reference.

4. 

\textit{Kujira} wa honyū-dōbutsu da. Sakana de wa nai.

\textit{whale TOPIC mammal is fish is not}

The whale is a mammal. It is not a fish.

In identifying \textit{kujira} (whale) it does not help to consult the outside world, discourse memory, episodic memory, or world knowledge. Only the lexicon in linguistic knowledge provides the knowledge of the class \textit{whale}.

In Japanese, indirect reference is designated by a noun phrase without a demonstrative modifier. In English, there is no particular way of distinguishing direct and indirect reference. Some German dialects have, however, two different series of definite articles for direct and indirect reference. Standard German partly differentiates them by permitting a preposition and a definite article to merge only in the case of indirect reference. For example, \textit{in das Kino gehen} (go to the movies) is contracted as \textit{ins Kino gehen} only if the movies in general or the only movie house in the town is referred to (Hartmann 1982).

3.3. Defining deixis and anaphora

Deixis and anaphora can be defined as follows:

Deixis is a kind of reference where a referent is identified by consulting the outside world or episodic memory.

Anaphora is a kind of reference where a referent is identified by consulting discourse memory.
Anaphora usually refers to that kind of reference where the antecedent (i.e., the linguistic form that indicates the same referent as the referring form does) exists in the text. The above definition is more appropriate, however, because it covers the case below where a linguist can hardly find the antecedent of *it* on the surface of the text, though the referent is established in discourse memory and should therefore be treated in the same way as in cases where an antecedent exists (the same claim has been made by Brown & Yule 1983: 175-76).

5. Mix an egg and a cup of milk into the flour. Pour *it* on the heated frying pan.

In defining deixis the outside world and episodic memory are dealt with similarly, because the latter can be considered as that component of the memory model which corresponds to the former. Also, there are cases where deixis refers to the content of a linguistic form in the text. This is discussed in 6.2.

4. Paradigm of *KO/SO/A*

Table 1 presents a brief view of how *KO/SO/A* demonstratives, both deictic and anaphoric, are related to each other (Sakuma 1966,

<table>
<thead>
<tr>
<th>part of speech</th>
<th>function</th>
<th><em>KO</em></th>
<th><em>SO</em></th>
<th><em>A</em></th>
</tr>
</thead>
<tbody>
<tr>
<td>pronoun</td>
<td>pronominal</td>
<td>kore</td>
<td>sore</td>
<td>are</td>
</tr>
<tr>
<td></td>
<td></td>
<td>koitsu</td>
<td>scitsu</td>
<td>aitsu</td>
</tr>
<tr>
<td>non-infl. adj.</td>
<td>adnominal</td>
<td>kono</td>
<td>sono</td>
<td>ano</td>
</tr>
<tr>
<td>non-infl. adj.</td>
<td>adjectival</td>
<td>konna</td>
<td>sonna</td>
<td>anna</td>
</tr>
<tr>
<td>adverb</td>
<td>adverbial</td>
<td>konnani kō</td>
<td>sonnani sō</td>
<td>annani a</td>
</tr>
<tr>
<td>pronoun</td>
<td>local</td>
<td>koko</td>
<td>soko</td>
<td>a.soko</td>
</tr>
<tr>
<td>pronoun</td>
<td>directional</td>
<td>kochira kotsu</td>
<td>sochira sotchi</td>
<td>achira atchi</td>
</tr>
</tbody>
</table>
Coulmas 1982). Words in the same row belong to the same part of speech, and have the same grammatical function, except that a different kind of cohesive information, conveyed by ko, so, or a, is consulted in each interpretation. In the following two chapters is discussed where lies the difference between KO, SO, and A.

5. KO/SO/A as deixis

Sakuma's explanation of deictic KO/SO/A in terms of each interlocutor's territory (Sakuma 1966: 22-23) has been accepted by many scholars. He claims that KO, SO and A designate an entity within the speaker's influence, within the hearer's influence, or within that of neither, respectively. Sakata 1971 and Horiguchi 1978 disagreed in part with this. They accept his explanation that KO indicates an entity within the speaker's influence (within the speaker's territory):

6. [Showing a pen in the speaker's hand]

*Kore* **ii deshō?**

PRONOMINAL good isn't it

Don't you think this is nice?

They also agree that an entity within the hearer's territory is referred to using SO:

7. [Pointing to the necktie the hearer has around his neck]

*Sono* nekutai katta n desu ka?

ADNOMINAL necktie bought QUESTION

Did you buy that necktie?

However, according to them, there exist counterexamples against Sakuma's claim that SO always designates an entity within the hearer's territory. Sakata 1971 cites a paragraph where the interlocutors are located near each other and a person at a slight distance from them, evidently outside the hearer's territory, is referred to with SO. See also the following conversation in a taxi (Shōho 1981):
8. Passenger: *Soko no renga-iro no tatemono no mae de*
   LOCAL brick-colored building in front of
tomete kure.
stop

Driver: *Soko no ôkina tatemono desu ne?*
LOCAL large building isn’t it

Passenger: Stop in front of the red-brick building over there.

Driver: Do you mean the large building over there?

If Sakuma’s theory about *SO* is true, then the passenger will refer with *SO* to an entity within his hearer’s (the driver’s) territory. However, when the driver refers with *SO* to the same entity within his hearer’s (the passenger’s) territory, a problem arises as to how a single entity can exist in the two mutually exclusive territories. This contradiction cannot be explained by Sakuma’s theory.

On the other hand, though the reference of *SO* is thus not restricted to the hearer’s territory, its use depends on the hearer’s existence (Horiguchi 1978: 140). In monolog, *SO* is not used. The fact that *SO* does not appear in young children’s speech (Sakuma 1966: 26) can be explained by their lack of social interest in others.

Before attempting to offer a solution to the above phenomena, we shall introduce two terms, *personal space* and *conversational space*, in order to clarify the concept of *territory* used rather loosely so far. Personal space is the domain surrounding an individual which is ordinarily respected by others. An intruder causes him to feel unpleasant, and sometimes to withdraw. Entities within this space are most readily perceived and affected by the individual. Conversational space is the domain around the interlocutors, from which others are expected to maintain a distance so as not to overhear or interfere with the exchange. Entities within this space are most typically within the reach of either of the interlocutors’ hand. Conversational space includes personal space. The latter has
been borrowed from Goffman 1971. The former corresponds to his *use space* of the speaker and hearer.

The deictic usage of *KO/SO/A* is explained as follows in Figure 3, where $S$ is the speaker and $H$ is the hearer. An entity outside the conversational space is designated by $A$. An entity within the conversational space and at the same time within the speaker’s personal space is designated by $KO$. An entity within the conversational space and outside the speaker’s personal space is designated by $SO$ (this is in agreement with Horiguchi 1978).

![Figure 3. Deictic usage of *KO/SO/A*](image)

This theory solves the problem of reference using $SO$ by assuming a conversational space including personal spaces. Conversational space and personal space are sociological and psychological concepts, and it is impossible to measure their domains precisely. For example, a mother can refer as *kono ko* (this child) to her child held by the hearer in his arms. Even such cases can be explained by psychologically reinterpreting personal space as the domain the particular person is directly involved with and conversational space as the domain both the interlocutors can most easily
have access to.

The speaker's territory is also involved with two pairs of Japanese verbs. In the pair *iku* (go) / *kuru* (come), *kuru* is used as a marked verb when an entity transfers to the speaker's territory. In the pair of donatory verbs *yaru* / *kureru*, the latter is chosen as marked when an object is given to the speaker or a person within his territory (see Yamamoto, Yoshimoto, Katagiri & Nomura 1984). They are also used as auxiliaries in the forms -*te iku/-*te kuru, -*te yaru/-*te kureru to imply movement or favor given to or from the speaker's territory.

6. **KO/SO/A as anaphora**

In this section, anaphoric usage of KO/SO/A is discussed. SO, which is a neutral anaphoric expression, is first contrasted with A, then with KO.

6.1. **A and SO**

The choice between *A* and SO depends on the speaker's knowledge of the referent and his belief in the hearer's knowledge about it (Shōho 1981). To formalize this, let us assume a knowledge model similar to that proposed by Katagiri 1985. Person A's entire knowledge in episodic memory (see 3.1) can be represented as *W_A*. A's knowledge of the other person's knowledge (B's knowledge) is incorporated in *W_A* and is represented as *W_AB*. Similarly, A's knowledge of B's knowledge of A's knowledge is *W_ABA*. Incorporation can go on infinitely deep. By the word *know* or *knowledge* is meant here the state of knowing an entity in its everyday sense, e.g. recognizing a person both by his face and by his name. For brevity, let us represent the fact that A *knows* and *does not know* the referent as +*W_A* and −*W_A*, respectively. Three levels of incor-

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5) In fact, *A* dealt with in this section is at the same time deictic and anaphoric according to the definition given in 3.3.
poration is sufficient to clarify conditions of selection between A and SO. At this point, there seems to be no need for an incorporation deeper than three levels. In the examples below, A represents the speaker and B the hearer.


I met Yamada yesterday. He seemed to have too much time on his hands, for we talked for two hours at a coffee shop.  

As in example 9, when the speaker knows the referent (Yamada-san) and believes the hearer knows it, and he believes the hearer believes he knows it, A is chosen.

10. B: Kinō, Bunkachō no Yamada Saburō-san to iu hito ni atte hanashi o shimashita.

B: Yesterday I met a person named Saburō Yamada. He works for the Agency for Cultural Affairs.  

A: He is a friend of mine.

From the to iu form following the proper noun Yamada Saburō-san in B's utterance, it is clearly not the case that both A and B are assumed to know him. The normal interpretation of B's utterance

6) When the referent of a Japanese proper noun is assumed not to be known to at least one of the interlocutors, it needs to be followed by to/tte iu + NOUN PHRASE (e.g. to iu hito, a person named...) or tte (see also Takubo 1984).
is that B knows *Yamada Saburô*, but does not believe A knows him. A’s knowledge model at the time of his response to this is, therefore, \([+W_A, +W_{AB}, -W_{ABA}]\). Here, both SO and A are permitted. This phenomenon can be explained as follows: if the speaker thinks more of the fact that both the interlocutors are assumed to know the referent \(([+W_A, +W_{AB}])\) A is adopted, while if he respects the difference of their knowledge, which he believes the hearer believes exists \(([+W_{AB}, -W_{ABA}])\), SO is chosen.

In other cases only SO is used. Out of the six combinations possible two are exemplified as examples 11 and 12, and others are omitted.

11. Kino Yamada to iu hito ni atta n da. *Sono/* *Ano* hito,
yesterday man’s name named person OBJECT met ADNOMINAL person
daigakujidai no tomodachi de ne. \([+W_A, -W_{AB}, +W_{ABA}]\)
university age in friend is

Yesterday I met a friend of mine named Yamada. He has been my friend since we were students.

12. B : Kinô Yamada tte iu daigakujidai no tomodachi ni atta
yesterday man’s name named university age in friend OBJECT met
n da.

A : *Sono/* *Ano* hito, kakkoii hito? \([-W_A, +W_{AB}, -W_{ABA}]\)
ADNOMINAL person handsome person

B : Yesterday I met a friend of mine from my university
days named Yamada.

A : Is he handsome?

As has been illustrated above, A is selected when the speaker knows the referent and he believes the hearer knows it \(([+W_A,

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7) According to a less usual interpretation of example 10, B had judged at the moment of utterance that A would not believe B knew the referent, though B knew A knew him \(([+W_B, +W_{BA}, -W_{BAH}])\). A’s knowledge model at the time of his utterance \(([+W_A, +W_{AB}, +W_{ABA}])\) is the same as in example 9, and only A appears here.
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When it is not the case that both the speaker and hearer are assumed to know the referent (\([+W_A, -W_{AB}], [-W_A, +W_{AB}]\) or \([-W_A, -W_{AB}]\)), **SO** is selected. In the case where the speaker knows the referent, he believes the hearer knows it, but he does not believe the hearer knows he knows it (\([+W_A, +W_{AB}, -W_{ABA}]\)), both **A** and **SO** can be used.

In summary, **A** is selected when both the interlocutors are assumed to know the referent, in other words, when it is believed to be stored in each interlocutor's episodic memory. Otherwise **SO** is used. **A** as anaphora (and at the same time deixis) is in principle tantamount to its purely deictic usage where the speaker and hearer can see the referent. The complicated incorporation of knowledge is involved here because, different from the purely deictic case, it is difficult for the speaker to ascertain that the knowledge of the referent is available to the hearer. Misunderstandings and corrections concerning mutual knowledge pose interesting problems in the study of dialog, though they will not be discussed here.

The examples below may appear to contradict what has been said about **A**.

13. **A**: Kono hon, Miller to iu hito ga kaita sono n desu ga, 
   ADNOMINAL book Miller named person SUBJECT wrote I hear 
   doko no hito desu ka? 
   where person is QUESTION

   **B**: Kimi, ano sensei o shiranai no ka? 
   you ADNOMINAL teacher OBJECT don't know QUESTION

   **A**: I hear this book was written by a person named Miller. 
   Where does he teach?

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8) It is characteristic of Japanese that it differentiates a non-deictic referent from a deictic one, which is assumed to be known to both the interlocutors. In many languages, including English, no such distinction is made. In Japanese, a proper noun is also expressed differently. See NOTE 6.
B: Don't you know that professor?

14. A: B-san ga geinôkai ni haitta koro wa donna
    Mr. B entered show business into time
    TOPIC what kind of
    jidai deshita ka?
    age was QUESTION

B: Ano koro wa Asakusa-opera no zensei-jidai deshite ne.
    ADNOMINAL place name's heyday was

A: Mr. B, what kind of age was it when you entered show
    business?

B: In those days Asakusa-opera was in its heyday.

In this deviation of A its basic usage remains unchanged. By
the speaker's choice of A to indicate an entity evidently unknown
the hearer, the latter is more obliged to assimilate the referent.
In example 13 this is done with a hint of reproach for the hearer's
ignorance, and in example 14 with the speaker's emotional in-
volvement with the referent.

6.2. KO and SO

KO differs from SO in that (1) its referent must be sub-
stantial, and that (2) its referent is interpreted as being salient
in the text.

(1) Substantiality

15. Inaka ni ite mo senmon'i ni dêta o okutte
    the country in live even specialist to data OBJECT send
    mite morau koto mo kanô to iu kara, hayaku sô/*kô
    take medical advice too possible they say because early ADVERBIAL
    natte hoshii mono da. (Sakai)9)
    realize (I)want EXCLAMATION

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9) The sources of the sentences cited from now on, except those from
linguistic works, are as follows (in the body only the authors' names
are given):

Natsume, Sôske, Sanshirô; Sôske Zenshû, vol.5. Iwanami, 1908.
I am really looking forward to the day when even people living in the country can send their medical data to a specialist and get his opinion.

As in the example above, an entity which is expected to be present only in the future cannot be designated by KO. Similarly, as Mikami 1955: 334-36 mentions, KO cannot refer to a hypothesized entity in a conditional clause (example 16), or a questioned entity in an interrogative sentence (example 17).

16. Hitori no ningen ga 30-nen mo kenyoku no za ni suwari-one person SUBJECT 30 years as long as power 's seat in continue tsuzukere ba, sono/*kono jinbutsu ga dore hodo takuetsu-to be seated if ADNOMINAL person SUBJECT how much outstanding shita seijika deatte mo, gyôsei, jinji ni yodomi ga politician be even if administration personnel in stagnation SUBJECT umare nai hazu wa nai. (The Asahi)

When one person sits in the seat of power for 30 years, no matter how outstanding he is as a politician, administration and personnel management are bound to stagnate.

17. Dôshite denshi-keisanki wa kore dake hiroi han'i de why computer TOPIC so much wide range in riyôsare, shikamo arayuru hitobito kara kanshin o motarete be used and all people by interest OBJECT be iru no ka? Sore/*Kore wa denshi-keisanki no bannôsei taken QUESTION PRONOMINAL TOPIC computer 's omnipotence no tame dearu. (Sakai)

Why are computers used in such a wide range of application and why have all kinds of people taken an interest in them? It is because they are so powerful.

(2) Saliency

As pointed out in Shôho 1981, the referent of KO is interpreted
as more salient in the text than that of SO. First, it can indicate
the theme, in the everyday sense of the word, of a paragraph. See
the following sentences cited from Morita 1980: 234.

18. Yomi, kaki, sansû no gakushû wa sûtaiteki dokuritsusei
reading writing arithmetic’s learning TOPIC relative independence
o motsu bunkazai dearu. Kojin wa, hoshii mama ni
OBJECT have cultural heritage is individual TOPIC as he likes it

kore o kaihensuru koto mo dekinakere ba, mata kore
PRONOMINAL OBJECT change cannot and also PRO-
nashi de sumasu koto mo dekinai. Só suru koto ni yotte,
NOMINAL dispense with cannot ADVERB do COMP by
kare wa tanin to no communication no shudan o ushinau
he TOPIC others with communication ’s means OBJECT lose
no dearu.

Learning to read, write and do arithmetic is independent
cultural heritage. An individual is not free to change it,
nor can he dispense with it. If he could, he would lose
the means to communicate with others.

Throughout the above paragraph, the theme, “learning to read,
write and do arithmetic”, is indicated by KO. Although SO can be
substituted for KO here, the prominence the writer intended to
convey is lost. “To change it or to dispense with it” is not the
theme, but a matter to be negated, and it is odd to refer to it
with KO.

Second, KO can be used to emphasize a particular part of the
comment10).

19. Nokotta ani wa yoku dekiru, shikkari shita hito de, watashi-
left brother TOPIC competent steady person is we

10) “Comment” is a text-linguistic concept which stands in contrast to
“topic”. Topic is an entity established in discourse memory about
which the narration goes on. In Japanese, it is designated by wa.
Comment are those new entities linked to the topics.
The only brother left was a competent, steady person. We relied on him. It was he that helped me go to the university.

The "brother" mentioned in example 19 is a part of the comment to be stressed, as is guessed from the cleft sentence pattern in the translation. Here, SO is inadequate, though not absolutely mistaken.

Third, KO can begin a paragraph by introducing a new theme.

In the 22nd year of the reign of Keitai, Iwai, Governor-General of Tsukushi, rose in revolt. He fought with the government troops led by Minister of State Mononobe no Arakabi in Mii District and was finally defeated and killed on November 11. In an attempt to escape punishment, his son Tsukushi no Kimi Kuzuko offered his land at Kasuya for an Imperial estate. This led to the establishment of
Dazaifu in Kyūshū.

The use of *kono toki* in the last sentence would present a new theme and thus require psychologically a new paragraph. If *sono toki* is selected, the entire text cited would constitute a single paragraph whose theme would be *Iwai*. (Shōho 1981: 99)

Apart from what has been said above, *KO* has a *cataphoric* usage, i.e. it refers to the content of utterance or thinking in the immediately following portion of text.

21. Kare wa, kao o kusha-kusha-ni shikamete damatta ga, he TOPIC face OBJECT frowning became silent but totsuzen kō itta. “Nan da, omae no anesa wa.” (Miura) suddenly ADVERBIAL said what is you 's sister TOPIC

He frowned and became silent. Then he said abruptly, “What has happened to your sister?”

This usage is deictic according to the definition in 3.3.

6.3. Anaphoric reference of *KO/SO/A*—summary

Here we summarize the functions of *KO/SO/A* as anaphora. *A* refers to an entity which is assumed to be found in both the interlocutors’ episodic memory. When the referent is evidently unknown to the hearer, *A* refers to an entity in the speaker's episodic memory which he urges the hearer to assimilate. *KO* refers to an entity in discourse memory which has form and substance, and it presents the referent as salient in the text. It can also refer cataphorically to the content of utterance or thinking. *SO* refers to an entity in discourse memory which is not designated either by *A* or by *KO*.

7. Deixis and anaphora—same or different?

Here we shall attempt a unified explanation of deictic and anaphoric usage of *KO/SO/A*. To illustrate the difference between
deixis and anaphora, consider how points in time are referred to as shown in Figure 4.

![Figure 4. Reference to points in time](image)

A point in time in the distant past which is assumed to be known to the interlocutors is indicated by *ano toki* (literally, *that time*). The present is designated by *ima* (now). Note that *kono toki* (literally, *this time*) is used for another purpose, i.e. to refer to some moment in the past or present, but not in the future. *Sono toki* refers neutrally to a moment in the past, present, or future.

*Ano toki* and *ima* are identified according to the distance from the zero point, i.e. the present moment where the interlocutors are located. They are therefore deictic (though they can be anaphoric at the same time), and the rules proposed for deictic *KO/SO/A* at the end of Section 5 apply here. *Sono toki* and *kono toki* are anaphoric; they are clearly independent of the zero point, but dependent on entities in discourse memory.

Anaphoric *SO* has often been explained as being a derivative of deictic *SO* whose function is to refer to an entity in the hearer's territory, "because an utterance, as soon as it is expressed, is within the hearer's domain" (Ide 1959: 124). However, as shown in Section 5, reference using *SO* is not always restricted to the hearer's territory. The neutrality of anaphoric *SO*, as seen above, can be better explained as stemming from its unmarked reference (in contrast to marked reference using *KO*) to an entity in the conversational space (see Section 5).

To explain *KO* in its anaphoric use, let us examine the following sentences:
22. Uto-uto shite me ga sameru to onna wa itsu no ma ni ka, doze off woke up when woman TOPC before he was aware
tonari no ji-san to hanashi o hajime to iru. Kono
next old man with talk OBJECT had started ADNOMINAL
ji-san wa tashikani mae no ma eki kara notta old man TOPIC surely before before station from got on
inakamono dearu. Hassha magiwa ni tonkyō na koe o country hick is start just before shriek OBJECT
dashite, hasekonde kite... utter ran and jumped on
(Natsume)

When he woke from his nap, the woman had started talk-
ing with the old man seated next to her. This old man was
a country hick who had got on at the next to the last
station. He had shouted while he ran for the train and
jumped on just before it started...

Let us try to account for kono ji-san (this old man) in the example
by means of empathy. Empathy is the hearer's (also the reader's)
identification of his imaginary self with a character in an imagi-
nary world formed as the result of text processing. He can see
the world with the character's eyes, and can experience the charac-
ter's feelings as his own. Text processing is facilitated by, and
probably necessitates, empathy (Miyazaki & Ueno 1985).

To formalize empathy, let us assume points of view and ob-
jects seen from them, represented by $p_n$ and $o_n$, respectively. An
object can be seen from a point of view of another object, thus
forming a recursive structure:

$$
P_0 \rightarrow o_1
   \downarrow
   p_1 \rightarrow o_2
   \downarrow
   p_2 \rightarrow \cdots
$$

$P_0$ is the zero point of empathy, equal to the speaker's point of
view, which is also forced on the hearer. Empathy from $p_n$ to $o_{n+1}$ has varying degrees, ranging from absolute objectivity to complete identification (Kuno & Kaburaki 1977: 628). Its default value (the value assumed when no specifications are given) is given by words expressing relationships (such as kinship) between $o_n$ and $o_{n+1}$. The actual value is determined by expressions about $o_{n+1}$'s mental activities or about $o_{n+1}$'s states or actions involved with $o_{n+1}$'s territory, e.g. KO/SO/A, iku/kuru, yaru/kureru (see the final paragraph in Section 5).

In example 22, strong empathy from $P_0$ to $o_1$ (from the writer to the main character) is implied by mental expressions about $o_1$, i.e. his waking up to find something, and territory-oriented expressions of $o_2$ (ji-san), e.g. an auxiliary -te kuru modifying his action in the third sentence. Kono ji-san is one of the latter cases. It indicates that $o_2$ is located near to $o_1$'s point of view. In other words, it forces the reader at the same time to place $o_2$ at a prominent point in his imaginary world and to see $o_2$ from $o_1$'s point of view, empathizing with $o_1$. The effect it produces can be seen more clearly if we substitute sono ji-san for kono ji-san: then both the main character and the old man would be placed with equal objectivity in the imaginary world and would be seen from no specific point of view other than that of the writer.

Kono toki in example 20 can be explained along the same lines: as soon as it appears, the reader sends his imaginary self to the imaginary world where the incident is happening (this is shown by the eye in Figure 4) and therefore experiences it with stronger empathy. This is why the reader feels that a new paragraph has been introduced. As has been illustrated in 6.2, the referent of KO must be substantial. This can be explained by the fact that it is presented specifically in an imaginary world. An intuitive concept of "imaginary world" is necessary here because human experiences and memory are something vivid which well-formalized discourse memory and
episodic memory cannot yet fully describe.

In indicating his empathy toward the referent by using KO, the speaker refers deictically to the entity in his imaginary world, whereas the hearer is not prepared to understand it as deixis. Generally, a demonstrative which is in principle unpermitted because of the lack of cohesive information on the hearer's part is often used in order to impress him and urge him to process it. Besides the anaphoric usage of KO given above, anaphoric A whose referent is unknown to the hearer is among such cases (see 6.1). A definite noun phrase expressing the main character in the very beginning of a piece of fiction, either in Japanese or in English, has a similar effect. In thus deviating from the basic usage of demonstratives, the speaker is making use of the hearer's ability, including empathy, to assimilate new information by assuming himself to be in the speaker's position.

8. Conclusion

Deictic and anaphoric usage of KO/SO/A was analyzed and the latter was explained as being a special case of the former. As stated in the introduction, KO/SO/A is only a small part of the entire Japanese demonstrative system and its description can be completed only after it has been contrasted with all of the other components of the system, especially personal pronouns, zero pronouns, paraphrase, and reiteration (see Section 2). The memory model, knowledge model, and the concept of empathy presented in this paper will be of value in carrying out this work.

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On Demonstratives KO/SO/A in Japanese

(要旨)

吉 本 啓

日本語の指示詞コソア（コレ／ソレ／アレなど、最初の音節がコ、ソ、アのいずれかである指示詞）の用法についてテクスト言語学の観点から説明する。叙述の前提として、指示詞を記憶モデルにもとづいて分類する。そのうち、コソアの重要な用法であるダイクシス（現場指示）とアナフォラ（文脈指示）について、それぞれにおけるコ、ソ、アの言い分けの条件を明確にする。特にダイクシス用法について、ソが聞き手の領域の指示に限られないことから、佐久間以来の定説に代わる説明を提案する。またアナフォラにおけるアソの言い分けに関連して、相手の知識モデルの考え方を援用する。最後に、コソアのアナフォラ用法をダイクシス用法にもとづいて説明することを試みる。

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