論文 JAIS

Conceptualization Processes in Simultaneous Interpretation

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This paper proposes a theoretical framework to trace conceptualization processes in utterance comprehension and it is applied to the analysis of authentic records of simultaneous interpreting. A lexical entry in utterance is supposed to trigger first a cognitive object with a lexical tag, which may then shift to one with a conceptual tag. The latter is purported to represent conceptualization going on in utterance understanding. Several pieces of evidence are shown to verify the effectiveness of the theoretical devices discussed here. The proposed model is considered helpful in analyzing simultaneous interpretation and at the same time expected to contribute to the study of utterance understanding.

1. Introduction

It is empirically recognized that some type of conceptualization takes place at some point of verbal comprehension. When asked to repeat what you have just heard, you could reproduce its content fairly easily, while it is usually not so easy to reproduce the exact wording the speaker has used and this tendency becomes more conspicuous with longer utterances. You understand what is meant even if the speaker inadvertently makes an error in enunciation, but you are not justified if you erroneously understand what is said with perfect linguistic expressions. Thus we notice asymmetry between expression and content. Such experiences show that linguistic expressions result in some concepts in our mind and the first possible dichotomy researchers come up with may be the distinction between lexical forms and concepts. While the input in verbal communication is in the lexical form, the understanding of utterances seems accomplished in conceptual terms.

Simultaneous interpreting (henceforth SI) has been observed to prove that it is not a mere process of replacing phrases in the source language (henceforth SL) with their lexical counterparts in the target language (henceforth TL). It is quite natural that SI

FUNAYAMA Chuta, "Conceptualization Processes in Simultaneous Interpretation."
Interpretation Studies, No. 4, December 2004, Pages 1-13

involves conceptual operations because it is indeed a holistic linguistic activity encompassing verbal comprehension. But those conceptual operations are yet to be explored more, though we've seen a progress in SI studies and many functions required for SI are identified (See Setton 1999, for instance).

In this paper we are going to examine the real-time flow of conceptualization in authentic SI records with the help of certain theoretical device, which will be introduced and discussed in the next section. Specific SI examples will be observed to see if our theoretical framework fits the reality or not in section 3.

2. Lexical and Conceptual Tagging

The unit of input in verbal communication is lexical and linguistic decoding provides the hearers with basic clues to the meanings the speaker intends to convey. In processing the incoming lexical forms on-line, the hearer must retain some of them for a while because the interpretation of utterance requires a certain combination of words. Furthermore, some information derived or inferred from linguistic decoding must be held for a longer span. Funayama (2002) proposed the notion of cognitive tag, or c-tag for short, to describe the real-time process of verbal comprehension. A c-tag is to be attached to a cognitive object, which is posited as the target of manipulation in the comprehension process, yet its substance is underdetermined at its birth and to be adjusted in the developing context. Since a c-tag is assigned to such an abstract object, it is also supposed to be abstract in nature. However, we want to trace the interactions and development of cognitive objects in discourse by following tractable tags. We therefore propose in this paper to give each c-tag a specific name and allow a shift or exchange among tags, by which we could describe the 'fluid' nature of a cognitive object. We posit here two types of c-tags, or just 'tags' for short: they are lexical and conceptual tags.

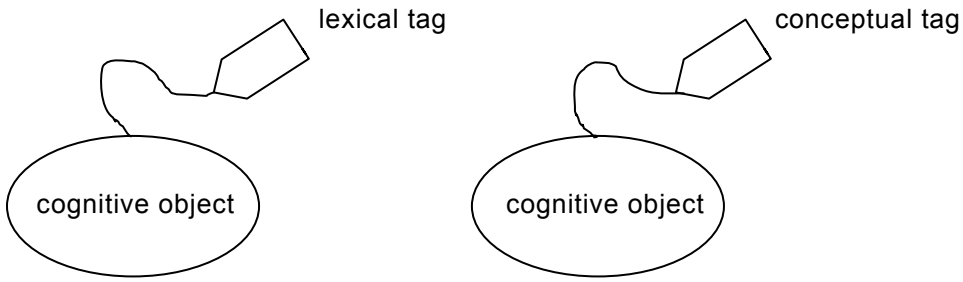
A lexical tag carries a lexical item as its label and the concept to be represented in such type of cognitive object is mainly lexical, though its content is yet to be shaped out in the oncoming context. This process has been studied as the identification of explicature through disambiguation, reference assignment, enrichment and ad hoc concept construction in Relevance Theory (See Sperber & Wilson 1986/95 and Carston 2000).

Conceptual tags are attached to concepts the hearer/interpreter comes to entertain either based on the conceptual development of lexical entries used in discourse or from outside the ongoing context. In the former case a part of the concept represented by a lexical tag is given prominence and it changes the main characteristic of the concept so that a different name becomes more appropriate to represent the concept. In the latter case some information obtained outside the present context is made

necessary as a concept and given a tag. Such emergence of a conceptual tag and what is called 'procedural information' in Relevance Theory will be discussed later.

The notional relationship among cognitive object, lexical tag and conceptual tag is schematically depicted below[1)].

(1) Schematic description of lexical and conceptual tags



They are used to trace the way conceptualization proceeds in utterance understanding in general and to hypothesize what is constructed in the interpreter's mind in SI studies in particular. The real-time flow of tagging for linguistic input is schematized in (2).

(2) Schematic flow diagram of tagging

lexical input —→ lexical tagging - - - →
—→ conceptual tagging - - - →

When we are engaged in processing linguistic input, we start with the handling of lexical items. A sequence of words should be put into the hearer's working memory for further processing, where a tag is attached to each lexical item according to the proposed model. The notion of tagging is useful because it can distinguish what is retained and how it is retained. Although words such as 'desk,' for example, might be kept in memory with potentially all the information the word 'desk' could contain, what is actually retained in the current memory is practically limited to the part of meaning that is relevant to the context. You need not retrieve the meaning of the check-out desk in a library when the utterance is about the layout of someone's study. A lexical tag is just an ornamental label after all and it does not delimit its content, or cognitive object, allowing changes in content. In the present example the cognitive object with the lexical tag 'desk' is supposed to consist only of the relevant part of the lexical meaning supplemented with contextual information. In other words, the context-sensitive meaning of a particular token of 'desk' is represented by the lexical

tag named ‘desk’ throughout the comprehension process. Thus the device of tagging enables us to show the way in which what is triggered by a lexical item remains under one and the same name throughout, yet changes in its content.

A conceptual tag symbolically represents a chunk of concept just as a lexical tag symbolically represents a certain lexical content. It may sound contradictory to say that a concept functions as a symbol, but we assume that some representative concept may serve as a sort of cover-sheet. The verb ‘confer’ in an utterance, for instance, may give rise to the lexical tag ‘confer,’ which symbolically represents relevant part of its dictionary meaning and such syntactic information that a subject, an object, and the preposition ‘on’ are grammatically required. On the other hand, this input in the utterance may lead to the conceptual tag ‘GIVING [2],’ which abstracts away particular semantic elements of ‘confer’ such as ‘official act’ and generalizes the common meanings shared by ‘bestow,’ ‘lend,’ ‘render,’ and other similar verbs, and contains such generalized information that an agent, a theme, and a patient are semantically required. In other words, this conceptual tag represents a cognitive object of higher order.

Now that we have two kinds of tagging, some discussion on their relationship is in order. In usual cases, lexical input is considered to trigger lexical tagging first and then conceptual tagging. Since apparent exceptions such as onomatopoeia are limited, we assume here that lexical tagging leads to conceptual one. This does not necessarily mean that conceptual tagging replaces lexical one. In fact, as will be discussed later, we should consider that lexical and conceptual tagging may overlap, though lexical tagging fades away earlier than conceptual tagging in ordinary cases as is schematized in (2). A shift in prominence from lexical to conceptual tagging would come earlier for those lexical items which are more familiar to the hearer. The hearer would stop short of shifting to conceptual tagging and retain only the lexical tag if he hasn’t heard the expression before. Thus the timing of shift is connected with the semantic certainty.

In the following example, a conceptual tag emerges without lexical input.

(3) I think what the United States may see as a liberating influence that should be welcomed by everybody, is considered to be a malign influence by others.

A contrast is depicted in this passage: what the U.S. sees as a liberating influence and what others see as a malign influence. One and the same thing is viewed in a contrastive way. Now this contrast is not described lexically. There is no word such as ‘contrast.’ The meaning of contrast is derived from the whole construction helped by the two noun phrases, ‘a liberating influence’ and ‘a malign influence,’ and the use

of ‘others’ in contrast to ‘the United States.’ The last two helping features contribute to the contrast conveyed by this message, but they cannot define any contrast alone. The two adjectives filling the same syntactic position awaits contextual consideration: ‘liberating’ and ‘malign’ are not lexically contrastive. In a similar way, ‘the U.S.’ and ‘others’ constitute mere juxtaposition, which might be interpreted as addition, for instance. The conceptual tag ‘CONTRAST’ is proposed to represent such an emerging notion.

When there is no single lexical trigger, it would be more adequate to attach a conceptual tag to the emerging concept of contrast. Since it is not connected with a specific lexical item in the utterance, what triggers this tag should be considered not predetermined. Some hearer/interpreter may hit upon the idea when the combination of the phrases: ‘the U.S. may see’ and ‘liberating,’ while others may wait until ‘by others’ completes the picture. Thus the timing of setting up a new conceptual tag is considered to depend on who is processing the utterance.

The notion that conceptual tags emerge in input processing finds its cognate in Relevance Theory, though there is a certain difference as we will note it toward the end of this section.

According to Relevance Theory, an utterance may encode two basic types of information: conceptual and procedural (Wilson & Sperber 1993). The term ‘procedural information’ tries to define, for example, the non-lexical meaning of ‘and’ in the following utterance:

(4) Mary injured her leg and sued Peter.

The first and the second propositions in (8) are understood as being connected by such a concept as ‘A is the reason for B.’ This meaning is not derived from the lexical meaning of ‘and’ but from the result of inference made by the hearer as Wilson and Sperber claim. The conjunction ‘and’ is argued to provide just computational information to help the hearer to manipulate representational information. Now, what they regard as computational in the inferential phase of comprehension is based on a cognitive object with its conceptual tag in our terminology. The linguistic decoding of ‘Mary injured her leg’ and ‘Mary sued Peter’ may lead to the emergence of a cognitive object with the conceptual tag ‘IS THE REASON FOR,’ which must be supported by the hearer’s knowledge of social conventions, logical necessity, and other factors.

The concept ‘IS THE REASON FOR’ is available to the hearer independent of the linguistic decoding of a particular utterance but ‘and’ may have triggered this concept in this example. Such possible combination of dependence and independence

in relation to lexical information is described in our model as a possible shift from lexical to conceptual tagging of 'and.' When the hearer encounters 'and,' its lexical content is entertained in the hearer's mind with the lexical tag 'and.' Then it may turn into a modified cognitive object with the conceptual tag 'IS THE REASON FOR,' reflecting additional information obtained in the developing context.

We may note that cognitive tags may emerge without any triggering lexical input, as exemplified above with (3). Therefore, our theoretical perspective, in which a lexical item may trigger both lexical and conceptual tagging, and conceptual tagging may be derived from both lexical and non-lexical sources, is wider in its application scope than the relevance-theoretic distinction of conceptual and procedural information, which is limited to linguistic decoding.

3. Conceptualization Observed in SI Data

Although the distinction of lexical and conceptual tagging is theoretically expected to play an essential role in exploring what constitutes utterance understanding in general, ordinary settings of verbal communication do not give observable evidence showing the nature of what is kept in a hearer's mind and it is generally difficult for a hearer to determine introspectively whether a piece of memory he has build up in his mind is lexical or conceptual. Records of genuine simultaneous interpreting contain a lot of evidence not available elsewhere and are precious in this regard. We can obtain observable clues to the degree to which a hearer/interpreter has conceptualized the input by checking the lexical correspondences between SL and TL. For example, when an interpreter takes in an unfamiliar word, he may defer finding a possible equivalent and retains its form as it sounds. This is confirmed in SI data when we find, for instance, an SL expression is just transliterated in TL. This is a clear case where the incoming information is being kept as lexical information. When a word in language A is rendered into a word in language B which is generally described in dictionaries to be equivalent, the input might be still lexical in nature. However, if the interpreter produces a phrase corresponding to the SL meaning, yet the way he expresses the content does not follow any ordinarily possible combinations of words taken from standard lexicon, then it constitutes a case where conceptualization has progressed to a greater extent.

A hearer/interpreter first identifies an incoming sequence of lexical items to build up a meaningful story in his mind while both bottom-up and top-down processes seem to proceed in parallel. In our model the contribution made by each lexical item to the story building can be traced by following tags. The appearance of a TL expression, which is considered to correspond to a certain SL lexical item, is taken to reflect that it has been retained by that moment in some manner. We may judge

whether a lexical tag has been maintained or a conceptual one has replaced it by checking the nature of intended equivalence between the SL and TL expressions. If they are in accordance with the usual pairing found in a majority of dictionaries, we conclude that the item in question has a lexical tag, while if they are free from such constraints we may assume that it has a conceptual tag. For example, if English 'tell' is translated into Japanese 'hanasu' (to speak), we may say that the lexical concept 'tell', which bears the label 'tell' by definition, has been kept at least until 'hanasu' is uttered in the output, whereas if 'tell' is translated into 'kaku' (to write) in a separate case, a conceptual tag has been attached at some point between the onset of 'tell' in the SL and the use of 'kaku' in the TL. Although it is theoretically absurd to give a linguistic label to a conceptual tag, we may call the conceptual tag in question as 'ACT OF PRODUCING A STORY' for convenience. This leads to the possible explanation about how the interpreter comes up with 'kaku': it is quite natural for the concept of 'ACT OF PRODUCING A STORY' to be represented by 'kaku' as well as 'hanasu,' and if the speaker is a writer, only 'kaku' fits the context (See an actual example cited in Funayama 2000).

While it is difficult to identify when a lexical tag ceases to exist or is replaced by a conceptual tag, we notice that a lexical tag remains for some duration to help the interpreter in charge to struggle for better translation. In the example below we can confirm that the lexical tag for 'manage' survives two trials of translation.

(5) SI Example for lexical tagging

E 104 because, to a greater extent, they were, if not manipulating, at least
J 104 これも興味深いことだと思います．というのも彼らは, ま，操作は

E 105 managing the materials that the journalists had to offer. So I think
J 105 しなかったまでも，ま，管理はしていたわけですね． どういうものを，ジャーナリ

E 106 there were quite a lot of difficulties there. But on the whole, it was
J 106 ストに提供するか，そのへんを，マネージしてたと思います． そこにいろいろ難しさはあり

[*BS23*, NHK-BS, 2003 / 4 / 24]

In this example, English 'manage' is once translated as 'kanri-suru' (line J 105) but later it is also put into 'maneeji-suru' (line J106). This case shows that a lexical tag does not necessarily completes its life when the interpreter finds a counterpart in TL, though in many other cases lexical tags are considered to disappear because of the limited capacity of working memory. One of the important reasons why the life of a lexical tag is prolonged seems to be related to the dissatisfaction on the part of the interpreter with the first translation. In the above example, the interpreter could have

wondered if ‘kanri-suru’ is an appropriate translation. Such a case suggests that a lexical tag remains effective as far as the search for the fittest TL phrase continues. If translation is accomplished only by finding equivalent phrases in TL, we need only lexical tagging and not conceptual tagging. The reality, however, goes beyond lexical exchanges.

Now we are going to show how conceptual tagging is employed in actual interpretation scenes. Lexical tags are essentially what interpreters target themselves at in their work and they are not conscious about conceptual tags, not because they are unfamiliar with this terminology, but because what we are exploring rests in the domain of interpreters’ intuition or automatic processing. We are here trying to dig up sources for conceptual tags.

In the next example, the relevant sources are scattered throughout the preceding context and a cognitive object with a new conceptual tag appears to have emerged by conflating several concepts.

(6) SI Example for emergence of a conceptual tag

E 079 to convey to the American people, and for that matter, the international
J 079 持つためです. そして, 実際に, アメリカの人たちにも, そして

E 080 population what this war was actually about after so many ah
J 080 また, 国際社会にも, 実際にこの戦争は, 何のためなのかということを伝えました.

E 081 stories and allegations, and insinuations that what we were doing was
J 081 たくさんのいろいろな話や, 主張や, 申し立てや, あるいは暗に秘めて 批判され

E 082 going for empire and we were going to kill immense numbers of civilians
J 082 たりいろんなことがありました. たとえばアメリカは帝国をつくろうとしている, あるいは

E 083 and we would be using weapons of mass destruction ourselves and so on
J 083 本当にたくさんの市民を殺そうとしている, そして大量破壊兵器を使うで

E 084 and lots of things like this needed to be rebutted and I think the
J 084 あろうと, いろんなことが言われましたけども, そうじゃないということを

E 085 administration understood properly that there was no better, no more
J 085 示す必要があったのです. そしてブッシュ政権はそれをちゃんと理解しました.

[*BS23*, NHK-BS, 2003/4/24]

We want to focus our attention on the interpreter’s expression ‘ironnakotoga iwaremasita’ (a variety of things were said) in line J084 in this example. The corresponding English phrase in the SL is just ‘lots of things like this’ (line E084),

which doesn't mention the 'say' part of the interpreter's output. The lexical information we find in the preceding context is only 'stories,' 'allegations,' and 'insinuations' (line E081) and their content (lines E081-083). One of the common features shared by these SL phrases is that they are verbally stated and the interpreter had that characteristic come out, or formed a newly combined concept in our terminology. The conceptual tag that may be called 'VERBAL STATEMENT' led to the addition of the 'say' part. It is not at issue here in this discussion whether that addition is intentional or not. The question to be asked here is where the source lies for the occurrence of the 'say' part. And we claim that a shift from the lexical tag 'stories' and others to the conceptual tag 'VERBAL STATEMENT' is the source for the 'say' part. On the premise that there's a limit on the capacity of working memory and thus on the number of lexical tags retained at a time, it is reasonable to assume that lexical information goes through conceptualization.

In the following example, the source of a conceptual tag is found in the interviewer's question, fairly remote in time from the TL occurrence.

(7) SI Example for retention of a conceptual tag

Q: Is it the case that the U.S. does not think the legitimacy of this war important?

(*omission*)

E 111 moment that we liberated his country?" and i, like secretary powell,
J 111 現在はどうかといいますと, ま, 彼, 国を今解放したんですけども

E 112 am confident that we would find evidence that he did indeed. We've
J 112 どうでしょうか, っていうんですが, 私はパウエル長官と同じように, 彼は

E 113 seen evidence that some of incredibly high levels of toxic chemicals
J 113 大量破壊兵器を持っていたという証拠は見つかると思います.

E 114 seemed to have been dumped into rivers shortly before or in the midst
J 114 本当に, 極めて 高度に毒性のある, 化学物質が

E 115 of our liberation campaign. That suggests that there were weapons at the
J 115 河川に流されたということもあります. この われわれの解放作戦の途中にです.

(*omission*)

E 121 as the secretary... the bottom line is absolutely right. The people
J 121 いる人たちが それを見つけるのを手伝ってくれると

E 122 of Iraq themselves are the best indication of how correct, how justified,
J 122 思います. でも, パウエル長官がおっしゃったとおり, イラクの人々を見れば,

E 123 how moral was the effort to bring about the end of this regime. My
J 123 われわれの作戦が, われわれの努力が, どれだけ本当に

E 124 guess is that there are great many other people around the world who are
J 124 正しいものであったかということを証明してくれると思います. 彼らの反応を見てもそれが

[*BS23*, NHK-BS, 2003/4/24]

The interpreter's output 'wareware no sakusen' (our operations) in line J123 is not an immediate response to any SL expression and is considered to derive from a concept obtained early in the discourse. This is confirmed by the TL expression 'wareware no doryoku' (line J123), which directly follows 'wareware no sakusen' as its replacement after listening to the SL phrase 'the effort.' The expression 'doryoku' seems to be the direct response to English 'the effort.' [3)]

The cited passage as a whole responds to a question by the moderator regarding the legitimacy of the war in Iraq and the interpreter's recognition that the topic of this interaction was going to be the war in Iraq can be judged to have already been established even before the present response started. The conceptual tag given to this knowledge, however, need not be named 'the war in Iraq' because this topic is being repeated meantime by the SL speaker as 'liberated his country' (line E111) and 'our liberation campaign' (line E115). This range of mentions tell us that the concept of war is modified or, you might say, biased. Therefore, a name such as 'war in Iraq' would be too general to reveal the interpreter's understanding of the speaker's intention and a concept like 'LIBERATION CAMPAIGN' seems to better serve as the name of the concept.

One of the basic differences between lexical and conceptual tags is that the former is in principle taken out of the lexical items used in SL, whereas the latter is worked out conceptually on the part of the hearer/interpreter so that what is entered on a conceptual tag as an identification tag is not verbal in nature but conceptual. The description of a concept such as 'LIBERATION CAMPAIGN' in the above example is merely for convenience and should not be understood as something as stable as lexical items.

Conceptual tagging also reveals how abstracting ability is used in utterance understanding. In our last example, a literal translation is superseded by some audience-friendly translation through conceptualization on the part of the interpreter.

(8) SI Example for coordination by a conceptual tag

E 103 **[A]:** **I** think the U.S. can live with a democratic administration in Iaq which is not
J 103 **[A]:** 私は, アメリカは 民主的に選ばれた政権,

E 104 deeply pro-U.S. I mean, there is not a pro-U.S. administration in Pris. but from the
J 104 これを受け入れることができると思います. 親米でなくてもです. パリは, あれは

E 105 point of view of many people in this administration, we don't have Fench people
J 105 親米政権ではありませんよね. でも, いまの

E 106 flying airplanes into buildings. and quite frankly, I think for many people
J 106 この政権からいいますと, このフランスのひとたちは, やはりテロはやらないから, 受け入れられる

E 107 in the administration, they have a simplistic view of what's going on in the
J 107 わけです, 私たちは. しかし, いまの政権, しかしながら, どういうこ

[*BS23*, NHK-BS, 2003/4/25]

The SL phrase 'flying airplanes into buildings' (line E106) has its own literal meaning and an interpreter may leave its contextual interpretation to the audience by recoding word for word in TL. The interpreter in the above example, however, rendered the phrase into Japanese 'tero' (terrorism) in line J106 instead. This was realized through a certain conceptualization, which is represented by conceptual tagging in our model. The SL words 'flying airplanes into buildings' should be grouped together first in this process and then given the status of a conceptual entity, which may bear a label such as 'TERRORISM.' This grouping of words into a concept is considered to be what hearers generally do in verbal understanding. In the case of translation, this process of understanding may be left to the hearers of the interpretation but the literal understanding by the final audience is incorrect in either case. The SL speaker is not talking about a general scene of flying airplanes into building, which might include a scene of flying a paper airplane into a building, but the intended meaning in this context is 'the opposite of democracy.' A conceptual tag is here expected to function to coordinate the grouping of lexical items, the procurement of contextual and encyclopedic information, and the cross-examination of harmony among these factors. A cognitive object, once formed, may function to coordinate pieces of information gathered from several sources.

4. Conclusion

This paper proposes a way to delineate how conceptualization goes on in verbal comprehension. The conceptualization part of utterance understanding discussed here has been partly recognized in other approaches including Relevance Theory and cognitive linguistics but requires more research and the present model is expected to play a seminal role in such research.

Since conceptualization in utterance comprehension is beyond perception and therefore denies simple description, we need to construct a theoretical framework that enables us to trace and represent our mental activity as closely as possible. We in this paper traced the flow of conceptualization in SI and showed that the two types of tagging proved effective in explaining the way interpreters work on-line. Successful explanation of this sort in turn supports the validity of our model, contributing to the research of utterance understanding in general.

One of the implications of our model to the study of translation is found in its possible application to the definition of literal translation. It has been based on common sense to talk about the merits and demerits of literal translation. There's a productive possibility to define literal translation by limiting the translator's conceptualization to lexical tagging only. This topic should be worthy of a separate thesis.

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Notes

1) As is shown in (1), tags are attached to cognitive objects, but we often discuss tags without mentioning that they are representing cognitive objects when no mis-understanding is feared.
2) We use uppercase letters for conceptual tags, and lowercase ones for lexical tags.
3) Although we cannot determine the reason why the to-infinitive clause following 'the effort'(E123), i.e. 'to bring about the end of this regime'(E123), misses its counterpart in the TL, its meaning is well in line with the way the interpreter considers what the topic is and therefore the missing part does not pose any problem at all.

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