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Author(s)	Irie, Yukio
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Yukio IRIE (Osaka University)

Questions and the Meaning of Identity Sentences

Introduction: Importance of Identity Sentences

This article explicates the meaning of identity sentences, which have special importance for the following reasons. First, *to understand an utterance, we must understand the question it answers*; this is because the meaning of the same sentence could change if it were uttered in response to a different question.[1] A question that elicits an answer will be called a "correlative question". The sentence can have different focus points, which constitute answers to different correlative questions. For example, "He went to Osaka yesterday," can be an answer to, "Who went to Osaka yesterday?", "When did he go to Osaka?", or, "Where did he go yesterday?" The focus points of these sentences would likely differ; for instance, "$[He]_F$ went to Osaka yesterday," "He went to $[Osaka]_F$ yesterday," or, "He went to Osaka $[yesterday]_F$" would be answers to these respective questions.

In many cases, the differences in the focus points of a sentence do not influence the truth value of that sentence[2]. However, when the relationships between these questions and answers are made explicit, we can see that the differences in their focus points do influence how to prove or verify them. Consider the following identity sentences:

"The person who went to Osaka yesterday = he,"

"The place to which he went yesterday = Osaka"

"The day when he went to Osaka = yesterday"

Second, *if we make the question-answer relationship explicit, it constructs an identity sentence, as in these examples.* These sentences involve different methods of verification or proof, and the meaning of these utterances is clarified when they are rephrased in this way. Indeed, it is the question-answer relationship that determines the focus point of the answer. Even an utterance that was not intended to answer a question can be understood as a response

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[1] Cf. Yukio Irie, 'A Proof of Collingwood's Thesis,' in *Philosophia Osaka*, Nr. 4, Published by Philosophy and History of Philosophy / Studies on Modern Thought and Culture Division of Studies on Cultural Forms, Graduate School of Letters, Osaka University, pp. 69-83, 2009. http://ir.library.osaka-u.ac.jp/dspace/bitstream/11094/10747/1/po_04_069.pdf

[2] A difference in the focus point of a sentence changes the truth value of the sentence in some cases. Cf. Rooth, Mats, 'A theory of focus interpretation'. *Natural Language Semantics,*1, 1992. pp. 75-116. Manfred Krifka, 'Association with focus phrases,' in Valerie Molnar and Susanne Winkler, *The Architecture of Focus*, Berlin, New York: Mouton de Gruyter, 2006, pp. 105-136.

to a correlative question insofar as it has a focus point. Moreover, as all utterances have a focus point, we can rephrase all of them into identity sentences, and the meaning of an utterance can be clarified by so doing. Therefore, the meaning of any given utterance can be clarified by rephrasing it into an identity sentence")[3]

An answer to a question is an identity sentence in some cases, but it is not an identity sentence in many other cases. In the latter, the focus point provides information, and we can place this point on the right side of the sentence, change the remainder into a noun phrase, and move that to the left side to get an identity sentence. This means changing the original question into a question with the following form: "What is…?" A question in the form of "What is A?" is seeking the referent of A, and the answer to it provides it in the form of "B"; thus, "A = B" holds. To understand utterance "B" as an answer to "A = ?" is to understand "A = B". *To understand an utterance as an answer to some question is to understand the identity sentence. In reverse, to understand "A = B" is to understand that "B" is an answer to "A = ?"*

1 Language learning by questioning and answering

As Chomsky points out, we can create an infinite number of new sentences because it is possible to compose an infinite number of sentences with a finite number of words. Robert Brandom claims that the meaning of a sentence is the minimal unit of linguistic meaning, and the meanings of words can be derived by analyzing and abstracting the meanings of sentences. The meaning of a sentence can be composed of the meanings of words that are derived in this way.

How do these two processes relate to each other? In many cases, an infant starts to speak by using *one-word sentences* and then produces two-word sentences by combining words. In a strict sense, because it performs a speech act, a one-word sentence is not an utterance of a word but a sentence. For example, we can understand that the one-word sentence, "Milk!", conveys the meaning, "Give me milk!" In this case, an infant would not use "Milk!" as a short form of "Give me milk!" because she could not yet say the latter. However, when she says "Milk!", she is expressing the same intention that is behind, "Give me milk!" Although she cannot yet say, "Give me milk!", she can understand utterances by others, such as "Give me milk!" or "Do you want milk?" However, if she says the aforementioned multi-word sentences, it would be only a recitation of a memory of hearing such utterances.

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[3] Cf. Yukio Irie, 'Identity Sentences as Answers to Question' in *Philosophia Osaka*, Nr. 7, Published by Philosophy and History of Philosophy / Studies on Modern Thought and Culture Division of Studies on Cultural Forms, Graduate School of Letters, Osaka University, 2012/3, pp. 79-94. http://ir.library. osaka-u.ac.jp/dspace/bitstream/11094/23292/1/po_07-079.pdf.

If we can understand a one-word sentence in such way, then the infant is not using it as an abridged form of, "Give me milk!" because it is understood that it is part of a sentence.

We learn a word as *a part of a sentence* (i.e., an initially *subsentential* expression). We do not learn the meaning of a word by learning sentences and analyzing them into words, and we do not learn to compose a sentence after learning single words. We initially learn the meanings and uses of words as *subsentential* expressions. This involves neither *semantic atomism* nor starting with *learning the uses of sentences*. Indeed, we need to use *questions and answers* to learn how to use *subsentential* expressions and sentences. Such questioning and answering is also a process by which we learn about questioning and answering *per se*. Indeed, the whole process of learning a language can be understood as a process of learning to question and answer.

The distinction between a sentence and a *subsentential* expression does not arise after learning a sentence; it starts implicitly at the beginning of learning a language. This raises the issue of how this distinction becomes explicit.

2 Distinction between predicate expressions and other subsentential expressions in terms of the question-answer relationship

We can substitute an *interrogative* for a *subsentential* expression of a given sentence and, if necessary, change the order of words and form a *wh-question*. When we answer such a question, we use a subsentential expression. As explained above, the separation of a sentence into subsentential expressions is learned simultaneously with learning a language.

The composition of a sentence of subsentential expressions requires not only combining the meanings of subsentential expressions but also integrating them into a unit.

Davidson views the issue of how to create this unification as part of the "problem of predication".[4] He tries to solve this problem with Tarski's concept of "satisfaction". Robert Brandom claims that a sentence, not a word, is the basic unit of linguistic meaning because a speech act can be performed by an utterance of a sentence but not of words. I would like to claim further that the unification of subsentential expressions into a sentence requires that the sentence can constitute an answer to a question; this is because utterance of a sentence can have truth value and constitute a speech act by virtue of being an answer to a question.

A *wh-question* is an open sentence that closes when an answer is uttered. The question part of a wh-question is called an incomplete utterance or half-finished product. A question has no truth value and does not constitute a normal speech act. The illocutionary act of posing

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[4] Cf. Donald Davidson, *Truth and Predication,* Harvard UP, 2005 and R. Brandom, *Articulating Reasons,* Chap. 4.

a question is an act of requiring a normal speech act, such as an assertion, order, or promise.[5] An answer fills a void in a *wh-question*; thus, the answer transforms an utterance into one with truth value that constitutes a normal speech act. A sentence can unite subsentential words by serving as an answer to a question.

An answer to a question can be conceptualized in two ways. *First*, it can be restricted to only a noun or noun phrase that becomes a complete sentence by adding an expression that was contained in the question. *Second*, an answer can be the complete sentence itself, which is rare because individuals tend to omit an expression that was already included in a question. However, a predicative expression in a complete answer sentence always appears in the question. This is the case, even in the following example:

"What did you do yesterday?"; "I prepared for the examination."

The "prepared" in the answer is a part of the predication. However, the "do" in the question is the fundamental part of the predication. Therefore, one can answer the question with a noun phrase, "Preparation for the examination" instead of, "I prepared for the examination," because we can eliminate the part of the predication that was already included in the question. This question and answer construct the following identity sentence.

"What will I do tomorrow = the preparation for the examination"

The distinction between the fundamental part of a predication and the other parts can be seen in the relationship between a question and an answer. The relationship between a question and an answer is impossible without a distinction between the predicative part and other parts of a sentence; this is because a question is directed not at a predicative part but only at a part of a noun phrase.

Why does the part that belongs to the predication in the complete answer sentence always appear in the question? For a question to be possible it needs to direct the answerer to what constitutes an answer. That is, the question must specify what an answer should include. The necessary content of an answer cannot be provided by a predicative expression; it must be supplied by a noun phrase; this is because a predicative expression does not refer to anything. Therefore, the predicative expression should be included in the question.

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[5] Cf. Yukio Irie, 'Illocutionary Acts from the Perspective of Questions and Answers,' in *Philosophia Osaka*, Nr. 10, Published by Philosophy and History of Philosophy / Studies on Modern Thought and Culture Division of Studies on Cultural Forms, Graduate School of Letters, Osaka University, 2014/3, pp. 39-48. https://core.ac.uk/download/pdf/38248101.pdf

Additionally, a *wh*-question and its answer can be paraphrased as a question and the answer that constitutes an identity sentence.[6] Therefore, a *wh*-question and its answer generally take the following form:

"Which is A?" ; "B" ("A = B" is a complete answer sentence).

The subsentential expression that is uttered as an answer constructs a part of the complete answer sentence. As an answer, the subsentential expression is a noun phrase, and the predicative expression of the complete answer sentence is always included in the question. In the next section, we explain the meaning of an identity sentence.

3 Distinction between the semantic content and the referent
(1) Asymmetry of an identity sentence in the context of the question-answer relationship.
The particular meaning of identity sentences that warrants attention in the context of this discussion is that which involves a complete answer sentence to a question. Let us consider the following example.

Let us suppose that two individuals enter a parking lot and one asks, "Which car belongs to X?", and the other answers, "That red car." The questioner knows that the identity sentence "the car that belongs to X = that red car" holds. In this case, the questioner understands the identity utterance in the following way: She wants to know the referent of "the car that belongs to X". She refers to the referent with "the car that belongs to X" but does not know to which car it refers. Let us suppose that she knows X, knows that X has a car, and knows that the car is in the parking lot. She can understand the referent of "That red car." She can know, through this answer, that the car that belongs to X = that red car. In this case, the questioner does not independently interpret each referent of each noun phrase on each side of the sentence and knows the identity of the referent. The questioner initially refers to "That red car", then knows that the referent of "That red car" is the same as the referent of "the car that belongs to X = that red car because "That red car" was uttered as an answer to the question. The questioner gets to know the referent of one noun phrase through it being the same as the referent of the other noun phrase. Therefore, understanding of the identity

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[6]   A why-question is exceptional, because the answer to wh-question "Why is P?" takes a form such as "Because…, therefore P," and this form constitutes an inference whose conclusion is P. I would like to improve this point in my paper 'Identity Sentences as Answers to Questions' (in *Philosophia Osaka*, Nr. 7, Published by Philosophy and History of Philosophy / Studies on Modern Thought and Culture Division of Studies on Cultural Forms, Graduate School of Letters, Osaka University, 2012/3, pp. 79-94: http://ir.library.osaka-u.ac.jp/dspace/bitstream/11094/23292/1/po_07-079.pdf.) .

sentence is *asymmetric* for the questioner. It is *asymmetric* also for the answerer because the answerer initially gets to know the referent of "the car belonging to X" and, to refer it to the questioner, thinks about the other noun phrase as a coreferential expression.

(2) Distinction between the semantic content and referent of a noun phrase in terms of the question-answer relationship.

Here, the questioner asks an answerer to refer to the car belonging to X. To do so, the answerer must understand to what the questioner is referring. To this end, the questioner uses the expression. "The car that belongs to X." She does not know its referent, but she does know its semantic content. The answerer uses a different expression, "That red car" to refer to the object. "The car that belongs to X," and, "That red car," are coreferential expressions. For the questioner to grasp the referent of "The car that belongs to X" the questioner must be able to grasp the referent of "That red car." The questioner cannot grasp the referent of "The car that belongs to X" but can grasp the referent of "That red car." This difference is derived from the difference in the semantic content of "The car that belongs to X" and "That red car."

What is the difference in the semantic content? Why is it that the questioner cannot grasp the referent of "The car that belongs to X" despite understanding its semantic content? Why can the answerer not only understand the semantic content of "The car that belongs to X" but also grasp its referent? To grasp the referent of "The car that belongs to X" one needs to understand more than its semantic content. The questioner knows the referent of "X" and understands the semantic content of the general noun "car" and verb phrase "belong to". However, such knowledge is not enough to specify which car in the parking lot belongs to X. The answerer is able to answer this question because she had seen X's car and could recognize it based on her memory. "The car that belongs to X" is a definite description that fits only one object in the parking lot. The questioner needs such an expression to convey the object to which he wants the answerer to refer.

The semantic content of a definite description expresses the information that fits only its referent. But this information is neither *sufficient* nor *necessary* to grasp the referent. It is *not sufficient* because even someone who knows the information could not grasp the referent in instances such as this example. It is *not necessary* because the object in this example can be referenced by another expression, such as, "That Honda car" instead of "That red car." Also, understanding the semantic content of "That red car" is neither *sufficient* nor *necessary* to grasp its referent. It is necessary to add something to the semantic content contained in "That red car." In other words, we need information about the situation or context in which the expression is uttered.

(3) Distinctions between true and sufficient answers presuppose distinctions between semantic content and referents.

How should an answer be formed? When the answerer replies, "That red car," the answerer must assume that the questioner can understand the semantic content of "That red car" and also grasp its referent. If the questioner could not grasp the referent, "That red car" would not be a sufficient answer — irrespective of its truth value. To be a *true answer* is a necessary but not a sufficient condition for the answer to be valid. To be a *sufficient answer*, the questioner must be able to grasp its referent.

For example, when the answer is, "That Honda," the answerer assumes that the questioner can grasp the referent, "That Honda." If the questioner cannot grasp the referent, "That Honda," this answer is not *sufficient* for the questioner, even if the answer were *true*.

Let us summarize. When a question and answer in the forms of "A = ?" and "B" are uttered, the following propositions hold:

- The questioner understands the semantic content of "A" but cannot reach its referent.
- The questioner supposes that an answerer can understand the semantic content of "A" and can grasp its referent.
- The answerer knows the semantic content and the referents of "A" and "B".
- The answerer supposes that the questioner can understand the semantic content of "B" and grasp its referent.
- The questioner can understand the semantic content of "B" and grasp its referent.

This means that the semantic content and the referent of a subsentential expression are distinct; this distinction is made explicit in the relationship between the question and the answer as follows.

(1) The questioner and the answerer know the semantic content of "A", but the questioner cannot grasp its referent and the answerer can grasp it.
(2) The questioner cannot grasp the referent of "A" but can grasp the referent of "B".

Frege explains the meaning of a proper name as the way in which a referent is given. We can explain it more explicitly here. The meaning of a singular term is constituted by the information about the properties that belong only to the referent. However, this information is neither sufficient nor necessary for specifying the referent.

The identity of/difference between the semantic content of coreferential singular terms can be expressed in the following two ways. *First,* it can be expressed by the identity of/

difference between the properties of coreferential singular terms, which belong only to the referent. *Second,* it can be expressed by the identity of/difference between the information needed to grap its referent. The former directly concerns the semantic content, and the latter concerns the *additional necessary information*. The semantic content of a singular term is not sufficient to grasp its referent; therefore, *additional information or knowledge* is necessary to grasp it. Such additional information differs according to the different semantic content of coreferential singular terms. Therefore, the difference of such additional necessary information expresses the difference in semantic content.

4 Meaning of identity sentences

What is the meaning of an identity sentence that is constructed by a question and an answer? We will consider this issue from the perspective of inferential semantic theory and then from the perspective of questions and answers.

(1) Inferential roles of identity sentences

Inferential semantics explain the meaning of linguistic expressions in terms of their inferential roles. The foundation of this notion is Gentzen's claim that meanings of logical connectives can be explained by introduction and elimination rules. M. Dummett and R. Brandom expanded this idea to ordinary language, explaining the meanings of a sentence in terms of the *upstream inferences* that render the sentence a conclusion of such inferences and in terms of the *downstream inferences* that treat the sentence as the premise.[7] For example, "p, q, r ⊢ s" is an *upstream inference* of "s" and a *downstream inference* of "p".

When we explain the meaning of an identity sentence according to inferential semantics we need to explain the following:

> (a) The introduction and elimination rules of the relationship " = ".
> (b) The upstream and downstream inferences of the identity sentence in the form of "a = b".

(a) Introduction and elimination rules of the relationship " = "

The introduction and elimination rules of the identity relation " = " are as follows.

The introduction rule of " = ": a = b ⊢ ∀ F (Fa ≡ Fb (principle of the indiscernibility

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[7] Cf. Dummett, *The Logical Basis of Metaphysics*, London, 1991, Chap. 11 and R. Brandom, *Making It Explicit*, Harvard UP, 1994, Chap. 2, and *Articulating Reasons*, Harvard UP, 2000. Chap. 1.

of identicals).

The elimination rule of " = ": $\forall F (Fa \equiv Fb) \vdash a = b$ (principle of the identity of the indiscernibles).

The meaning of the symbol of identity is constituted by its use, and the way it is used is sufficiently explained by the introduction rule and the elimination rule.[8]

(b) Upstream and downstream inferences of the identity sentence in the form of "a = b"

First, let us consider the upstream inference of "a = b". The following are upstream inferences of "a = b":

$$p、p \supset a = b \vdash a = b$$
$$a = b \wedge p \vdash a = b$$

The identity sentence "a = b" is contained not only in the conclusion but also in the premises of these two inferences; therefore, these upstream inferences are not available to contribute to understanding "a = b" because these inferential relations are almost the same as the inferential relations of "p、$p \supset q \vdash q$"、$q \wedge p \vdash q$," which are given by substituting "p" into the "a = b" of the above inferences. To be available, the upstream inference cannot contain "a = b" in its premises. Thus, the following inferences would be available:

$$\forall F (Fa \equiv Fb) \vdash a = b$$
$$a = m, b = m \vdash a = b.$$

The former can explain the form of "a = b", but it cannot explain the meaning of "a = b" because " $\forall F (Fc \equiv Fd) \vdash c = d$" can also hold; therefore, we cannot explain the difference between "a = b" and "c = d".

In contrast, the latter cannot explain the sentence form "a = b" because understanding the premises "a = m" and "b = m" requires presupposing an understanding of the sentence form "a = b".

However, this type of upstream inference can explain the difference between "a = b" and "c = d", because the difference between the referent of "a = b" and that of "c = d" can be explained by the upstream inferences "a = m, b = m $\vdash$ a = b" and "c = n, d = n $\vdash$ c = d".

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[8] These two rules must have 'harmony' (Nuel Belnap); that is, after applying the introduction rule and the elimination rule, we lack an inference that has not been accepted by only the old vocabulary. Cf. Nuel Belnap, 'Tonk, Plonk, and Plink,' *Analysis* 22 (1962): 130-134.

Second, let us consider the downstream inferences. The following are the downstream inferences of "a = b":

$$a = b, p \vdash a = b \wedge p$$
$$a = b \vdash a = b \vee p.$$

The identity sentence "a = b" is contained not only in the premises but also in the conclusion of these two inferences; therefore, these downstream inferences are not available to aid in the understanding of "a = b". However, the downstream inference that does not contain "a = b" in its conclusion is available. Thus, the following two inferences are useful:

$$a = b \vdash \forall F \, (Fa \equiv Fb)$$
$$a = m \text{、} b = m \vdash a = b.$$

The former can explain the form of "a = b", but it cannot explain the meaning of "a = b" because this type of inference cannot explain the difference between the referent of "a = b" and that of "c = d". In contrast, the latter cannot explain the sentence form of "a = b" because it contains "a = b" in its conclusion. However, this downstream inference can explain the meaning of "a = b" because the difference between the referent of "a = b" and that of "c = d" can be explained by the difference between the following two downstream inferences: "a = m, b = m ⊢ a = b" and "c = n, d = n ⊢ c = d".

The inferential semantics explains the meaning of an identity sentence by upstream and downstream inferences in the way shown above. Interestingly, the inferences can hold as a process by which to answer a question; therefore, we should understand the meaning of a sentence in terms of the question-answer relationship.[9]

(2) From inferential role to role in the question-answer relationship
Inference constitutes the process by which a question is answered. For example, in the inference "a = c, b = c ⊢ a = b", these two premises can logically lead to conclusions other than "a = b": for example, "a = d ⊃ b = d" and "a ≠ d ⊃ b ≠ d" could be conclusions. Nevertheless, "a = b" was selected as the conclusion because "a = b" can become an answer to a question such as "a = ?".

Let us suppose that when the question is asked, "Which car belongs to X?" in the parking

[9] Yukio Irie, 'Question and Inference,' in *Begegnungen in Vergangenheit und Gegenwart,* Claudia Rammelt, Cornelia Schlarb, Egbert Schlarb (HG.), Lit Verlag Dr. W. Hopf Berlin, Juni, 2015. pp. 365-375.

lot, the person asked remembers that *the car that belongs to X = the Honda I have seen before*, and finds that *the Honda I have seen before = that red car*. So she made the following inference,

> The car that belongs to X = the Honda I have seen before
> The Honda I have seen before = that red car
> ∴ The car that belongs to X = that red car

We can deduce many other conclusions from these two premises, such as "I have seen that red car before", or "The Honda car belongs to X and it is red", and so on. She needed to select "The car that belongs to X = that red car" because she must answer the question "Which car belongs to X?" We should identify the sentence "The car that belongs to X = that red car" not only in the inferential relation but also in the question-answer relationship.

(a) Identifying the meaning of a sentence in relation to plural questions

The same sentence can serve as an answer to many different questions. Indeed, answering different questions involves drawing different inferences. It is also possible to get the same answer to the same question via different inferences. However, when we offer the same sentence as an answer to different questions, we have necessarily drawn different inferences to reach each answer. The same sentence can have many correlative questions, and each correlative question requires that one uses a different inference to answer it.

Let us suppose that the utterance U1 is an answer to the correlative question Q1, and the set of possible answers of Q1 is the set {U1, U2, U3, …}. We cannot determine the meaning of U1 based only on its relationship to the correlative question Q1 because other possible answers to Q1 have the same relationship to Q1 as U1. Therefore, the relationship to the correlative question cannot reveal the differences in the meanings of possible answers.

On the other hand, the utterance U1 can have another question, Q2, as its correlative question. Let us suppose that the set of possible answers to Q2 consists of {U1, Ua, Ub, …}. The meaning of U1 is restricted by its relationship to Q2, but its relationship to Q2 is not a sufficient basis for determining the meaning of U1 because its relationship to Q2 cannot reveal the differences in the meanings of the possible answers to Q2.

However, if we combine these two correlative questions, we can determine the unique meaning of the sentence because the only term that belongs to the set of possible answers to Q1, {U1, U2, U3, …}, and to the set of possible answers to Q2, {U1, Ua, Ub, …}, is U1. Let us explain why two sentences cannot serve as possible answers to the two questions.

"Everyone ends up alone at the end of one's life" (Chizuko Ueno)

The correlative question of this sentence varies according to the focus point.

Q1 "Who ends up alone at the end of one's life?"

"[Everyone]$_F$ ends up alone at the end of one's life."

Q2 "When does everyone end up alone?"

"Everyone ends up alone [at the end of one's life]$_F$."

An answer to Q1 has the following form: "… ends up alone at the end of one's life," and different possible answers involve replacing "…." with different noun phrases. An answer to Q2 has the form "Everyone ends up alone …," and different possible answers have different replacement phrases for "…". In this context, we can understand that there is only one possible answer to Q1 and Q2: "Everyone ends up alone at the end of one's life." Generally, when plural correlative questions are posed, the sentence that can serve as an answer to all correlative questions can be uniquely determined. Therefore, the meaning of a sentence can be defined by the set of possible correlative questions it can answer. This being the case, can we make the same claim regarding an identity sentence?

(b) Understanding identity sentences in terms of the question-answer relationship
An identity sentence (e.g., "A = B") can have two different correlative questions. We understand "A = B" as an answer to "Which is A?" or as an answer to "Which is B?" The focus point of an identity sentence varies according to its correlative question. As an answer to the first question, "A = B" has the following focus points: "A = [B]$_F$" and "A = B"; as an answer to the second question, it has the following focus point: "[A]$_F$ = B".

For example, the identity sentence "The wife of Socrates = Xanthippe" can answer the following two correlative questions: "Who is the wife of Socrates?" and "Who is Xanthippe?" Answers to these questions have the following different focus points: "The wife of Socrates = [Xanthippe]F" and "[The wife of Socrates]F = Xanthippe". Therefore, the answers to these questions involve different inferences. The ways in which two questioners understand the identity sentence also differ. The questioner posing the first correlative question can grasp the referent of the wife of Socrates via the referent "Xanthippe". The questioner posing the second correlative question can grasp the referent of "Xanthippe" via the referent "the wife of Socrates". In both cases, the questioner knows the semantic content of one noun phrase but does not know its referent and also understands both the semantic content and the referent of the other noun phrase; however, there are different asymmetric relations in these two cases.

Conclusion

We pointed out the following in the first half of this paper (in sections 1, 2, and 3):

- The learning of subsentential expressions starts with questions and answers.
- Distinctions between a sentence and a subsential expression, between predicative expressions and other subsentential expressions, and between the semantic content and the referent of a noun phrase hold by virtue of the question-answer relationship, or these distinctions are the transcendental conditions of the question-answer relationship.

In the latter half (in section 4), we pointed out the following:

- Inferential semantics explains the meaning of an identity sentence in terms of upstream and downstream inferences. We added that these inferences also hold as the process by which a question is answered.
- The meaning of a sentence, including an identity sentence, is determined by its set of possible correlative questions.
- The meaning of an identity sentence is understood as an answer to a correlative question. Therefore, we do not understand the noun phrases on the two sides of an identity sentence in a symmetric way; we understand them asymmetrically.
- Each identity sentence can have many correlative questions, and the asymmetric understanding of each identity sentence varies along with its correlative questions.

Based on the above understanding, and in contrast to semantic atomism, we can claim that to understand a word is initially to understand the word as a *subsentential* expression. Against the claim that a sentence is a minimal unit of linguistic meaning, we can point out that understanding a set of questions and answers is more basic than understanding a sentence. A speech act is performed not as an utterance of a sentence but as an answer to a question[10].

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[10] Cf. Yukio Irie, 'Illocutionary Acts from the Perspective of Questions and Answers,' in *Philosophia Osaka*, Nr. 10, Published by Philosophy and History of Philosophy / Studies on Modern Thought and Culture Division of Studies on Cultural Forms, Graduate School of Letters, Osaka University, 2014/3, pp.39-48.
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