

On the semantic-pragmatic status of conjunctions: an analysis of 'as'

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1. Introduction

What is the meaning of a conjunction is even now a difficult question. Generally speaking, it has not been unusual that the so-called *function words* of a given language are not easily pigeonholed into a certain linguistic framework. The function words constitute closed classes in most cases, and are used for many times, in many kinds of situations, because of which someone might attribute those theoretical difficulties to the speaker's unconsciousness. However, even if the speaker uses them in an unconscious manner, it does not mean the lack of regularity in it at all. In my view, such a theoretical difficulty at least partly comes from the *representational* view on meaning which has been widely and sometimes tacitly assumed in the traditional linguistic enterprises. In other words, the belief that the meaning of the so-called content words is the main concern of semantic enterprise at least partly has left the question on the meaning of function words not yet fully explored.

However, is it really impossible to write linguistic semantics mainly from functional viewpoint, the question which clearly exists as a logical alternative? That is the question that lies behind the discussion of this paper, though I hope to answer it just partly at this stage. In the following sections, I take up some English conjunctions to discuss this issue. Though the syntactic essence of conjunctions would be rather clear (that is, to connect clauses), the semantic and pragmatic characteristics do not seem so. I shall first propose a somewhat rough theoretical viewpoint which I hope to grasp the semantic-pragmatic status of conjunctions. Second, I shall examine three lines of current research on conjunctions which contain functional viewpoints to some degree, in order to enrich my discussion. The three lines of thought are the following: relevance theory, cognitive linguistics, and discourse-marker approach. Though those approaches encompass the analyses of a large amount of conjunctive phenomena, I shall limit my discussion mainly to the analysis of the so-called subordinate conjunctions for a spatial reason. Third, I shall give a brief analysis of 'as' based on the preceding theoretical discussions. Since 'as' is an English conjunction with almost 'notoriously' many readings, it will be a challenge for my framework to put them in order.¹

2. A (broad) theoretical viewpoint: informational management

In a widely discussed paper "Meaning", Grice emphasized that the addresser's *intention*

and the addressee's *recognition* of it are the essential components when someone *means* something whether linguistically or not (Grice 1989 [1957]: 219–23). In another paper “Logic and conversation”, he shed light on the role of *inference* in linguistic communication (especially utterance understanding by the hearer), with his well-known notions, Cooperative Principle and Conversational Maxims (Grice 1975). Thus, especially in the field of pragmatics, Gricean view of communication has been sometimes termed the *inferential model of communication or intention-inference approach*, in the sense that the addresser's intention and the addressee's inference toward recognizing the intention are the necessary components of communication (see Bach and Harnish 1979, and Sperber and Wilson 1986/1995²).

Any acts, if linguistic or not, presuppose the agent's intention. Communicative act is not an exception. In the inferential model, as it might be easily noticed, the intention is already present in the beginning. The intention is, however, somewhat a hard problem especially if we take a psychological point of view on communication. In general, an intention is not independent in itself; a given intention often presupposes or precedes other intentions. Suppose that someone, say John, is riding on a bicycle. It would be safe to assume that he has an intention to ride on a bicycle or to pedal a bicycle. He might well intend to move his feet up and down. Though he might be just doing so because he just wants to do so, he would much probably do so with other (perhaps higher) intentions: to go to school; to meet Jane there; to discuss something with her there, and so forth.

Similarly communicative acts show such links of intentions. Suppose that John is writing a letter to Jane now. In this task, it would be quite probable that he intends to convey a message to the receiver. However, if he wants to complete this task, at least he would have to use a pen and a sheet of paper. Thus, it might be that he intends to use a pen and a sheet of paper. If he uses them, he would have to hold them. Thus, he probably intends to hold them. If he wants to hold them, he would have to move his hands ... ad infinitum (see (1)).

- (1) a. John intends to convey a message to Jane.
- b. John intends to write a letter.
- c. John intends to use a pen and a sheet of paper.
- d. John intends to hold a pen and a sheet of paper...

The links of intentions or the transition of intentions (... → a → b → c → d → ...) is almost explosive in some cases.

A possible remedy for this problem might be to bring out the distinction between psychological (conscious) experience of the intentions and the intentions themselves. In other words, each intention should not necessarily be checked out consciously in order to be fulfilled. Though it is clear that this consideration needs further elaboration, I assume here tentatively that we can avoid the apparent psychological fetter still without losing

a psychological perspective.

Despite the problem above, such a microscopic view on intentions opens up a possibility to assume the intention of using a word, besides a sentence, which plays a role in linguistic communication. In fact, such a (sometimes tacit) postulation can be found in linguistic literature. For example, in his later work, Grice himself considered that the speaker signals his performance of the *higher-order speech-act* by uttering such expressions as 'on the other hand', 'so', or 'therefore' (Grice 1989b: 362). Or, though belonging to a tradition remote from Grice's or Austin's, Fauconnier's notion of *space-builders* is also a case in point. He defines them as "expressions that may establish a new space or refer back to one already introduced in the discourse." (Fauconnier 1985: 17) The following counter-factual sentences are some of his examples (Fauconnier 1990: 6).

- (2) a. In France, Watergate wouldn't have done Nixon any harm.
 b. In France, Nixon wouldn't have been elected.
 c. If I had been Regan, I would have raised my salary.

'In' in (2a, b) and 'if' in (2c) are space-builders in Fauconnier's terms, each of which have the function to build a *mental space* in the hearer's understanding of the sentence (in this case, a *counter-factual space*). Instead of examining his theoretical framework in detail, I would like to just point out his use of the word 'build' here. The term 'build' presupposes some agent. Though the agent is supposed to be the word 'if', not the human agent, it would be safe to suppose the human agent behind the use of this word. They are some of examples of the functional nature of a word or morpheme when producing and understanding an utterance, in terms of which I want to explore the data of other conjunctions in this paper.

Given those considerations above, I hypothesize the notion of *informational management* for the following discussion on conjunctions. With using this term, I assume that any linguistic act, whether it is done by a complete sentence or just a single word, is an intentional act. However, it is clearly absurd to assume that a speaker consciously uses a conjunction thinking "I intend to manage the hearer's (or my) information." Thus my use of the term *management* might be a metaphor in a traditional sense. However, a metaphor will be just inappropriately used if it does not have any relation to the real world. The lack of such a relationship is just a matter of consciousness that we have seen above, and I propose the rest of its connotations in realistic sense.

This notion can be given a two-fold definition and I will propose both. First, the speaker uses a conjunction to organize or reorganize the hearer's informational state. It is an intentional act in the above sense, which I call *interpersonal informational management*. Second, a human being organizes or reorganizes information they have by themselves, when they perceive a new piece of information from the world, or when they just think about the world by themselves. It is *individual informational management*, which

includes the process of *inference*. These two types are not identical but interrelated: The former presupposes the latter.

Human beings, or any other animals that use some form of communication are separated from each other objectively. It is the very fact that makes the following fact so mysterious, how human beings are able to communicate with each other on so much a wide range of matters that it sometimes leads one to deny the former fact. I also have a hope that the above postulation and the following arguments for it be a partial contribution to solving the dilemma.

3. Functional approaches to conjunctions

In the following sections, I will examine three frameworks while focusing on the issues of conjunctions. Those frameworks have functional viewpoints to some degree. Each of them contains useful notions that would enrich my rough hypothesis.

3.1 *Relevance theory*: procedural meaning and inferential process

In the framework of relevance theory (Sperber and Wilson 1986/1995²), Blakemore claims that there are two kinds of meaning: one which contributes to constituting a conceptual representation of a state of affairs on the one hand, and one which gives a certain *semantic constraints* on the processing of the conceptual representations on the other (Blakemore 1987). In the relevance-theoretic literature, the former is referred to as *conceptual meaning* and the latter as *procedural meaning* (see also Wilson and Sperber 1993, among others). Conceptual meaning rather fits in well with the framework of truth-conditional semantics. Procedural meaning, on the other hand, goes beyond the realm of linguistic semantics (especially truth-conditional semantics) and is formulated in terms of the pragmatic model of utterance interpretation, namely, relevance theory. Let us examine some expressions with the *procedural* meaning as proposed by this theory. (Blakemore 1987: 81)

(3) He is brave. He is, after all, an Englishman.

(4) He is an Englishman. So he is brave.

(3') He is brave. He is an Englishman.

(4') He is an Englishman. He is brave.

'After all' in (3) and 'so' in (4) are procedural rather than conceptual in terms of relevance theory, since neither does not contribute to the conceptual representation of the state of affairs the utterance expresses (more correctly, *the proposition expressed by the utterance*). The fact that they do not constitute the conceptual representations can be confirmed by comparing (3) and (3') or (4) and (4'). We can see that the propositions expressed by the utterances of each pair are truth-conditionally equivalent and that the relation between

the two utterances in (3') and (4') can be safely inferred as far as the sufficient context or some appropriate 'paralinguistic cues' are provided.

As mentioned in the above, in relevance theory, it is assumed that procedural meaning provides the hearer with certain instructions on how the utterance is to be processed in their utterance interpretation. Thus on (3), according to Blakemore, 'after all' plays a role of indicating that the utterance containing it is one of logical premises whose consequence would be contained in the preceding context (for example, one of the previous utterances): "He is brave" in this case. In (4), the logical relation is rather reversed, in that 'so' is indicating that the utterance containing it is a logical consequence, one of whose premises would be contained in the preceding context: "He is an Englishman" in this case.

Linguistic expressions with this procedural nature are not limited to the above examples. In fact, Blakemore also applies this point of view to 'although', 'because', 'but', 'furthermore', 'moreover', and 'therefore', for example. These include many expressions that are traditionally called *conjunctions* or sometimes called *discourse connectives*. Among those, I would like to look at the characterization of 'because' in a brief way, since it seems to show not just the theory's advantage, but its problem.

'Because' allows at least two readings as has often been traditionally pointed out in the literature (for example, Ross 1970). Consider (5) below (Blakemore 1987: 78).

(5) Tom has left because his wife isn't here.

One reading of (5) is the causal reading, in which the speaker is supposed to simply describe a causal relationship that the absence of Tom's wife gave rise to his leaving. Another reading is to interpret the subordinate clause "his wife isn't here" as giving evidence to the speaker's belief that Tom has left, hence it can be said to be procedural reading. On the former reading Blakemore seems to consider it a conceptual one, since in this case 'because' contributes to constituting the *conceptual* representation of the state of affairs in a truth-conditional way.

Though these two readings seem to fit in well with the conceptual/procedural distinction in a square manner, there is one point that I cannot agree with Blakemore's paradigm, according to which one should suppose that those two readings result from the *lexical ambiguity* of 'because' (Blakemore 1987: 78). If it is right, one seems to have to consider that the ambiguity of the word 'bank' or 'bachelor' and the ambiguity of 'because' are almost equal in terms of processing just because they both require *disambiguation*. It seems untenable. Additionally, if it is true that as they say the human cognition is geared to maximize the relevance and that the notion of relevance is defined as the balance between cognitive effects and processing effort (Sperdier & Wilson 1986/1995²: chapter 3), some questions comes to me, for example, why the semantic change of a conjunction appears to be geared towards the opposite direction (that is, towards the

multiplication of its senses, which is subsequently to cause the increase of the potential processing effort for its disambiguation)?²

Relevance theory is almost only one theory of pragmatics which explicates the process of utterance interpretation in the same terms as the individual's cognition of the world.³ Thus, their inferential model has some essential implications to the notion of *informational management* of both types. Concerning conjunctions, the procedural meaning and inferential process provides our task with an important theoretical model. However, its strict representational view on the unit of computation seems to have a theoretical limit. That makes it difficult to deal with the relationship between conceptual and procedural meaning of a conjunction like 'because'.

In the next section I will briefly examine cognitive-linguistic views on language and linguistic communication, especially on Sweetser's (1990) treatment of the multiple reading of conjunctions, in which she also tries to give a psychological explanation to this phenomenon.

3.2 *Cognitive linguistics: conceptualization and metaphorical mapping*

It can be said that the ubiquity of the metaphorical nature of linguistic phenomena, though it might have been noticed for a long time, is systematically explored for the first time by the trend of cognitive linguistics: Lakoff and Johnson (1980) have shown many instances in which the terms of physical (or bodily) domain are metaphorically mobilized to the expressions of more abstract domains; Lakoff (1987) has provided scientific evidence for his arguments of the metaphorical nature of human cognition, for example. In this paradigm, it is considered that language is not an abstract object that is independent of human experience of the world, but that it is largely grounded on the human-world interface, that is, the *conceptualization* of the world. Similarly, Sweetser (1990) explores the Indo-European vocabulary of perception cross-linguistically and diachronically to prove this tendency. For example, she points out some evidence like these: an English perception verb 'stare' comes from a Low German word '*ster-' whose meaning is "firm"; a Greek word 'eídon' whose meaning is "see" is the remote ancestor of an English word "idea"; a Classical Greek verb 'klúo:' once meant "hear" but its nominal derivative 'kléos' now means "fame", and so on. Her main aim in that study was to show "the interaction between synchronic semantic groupings and parallelisms in historical change of meaning" (Sweetser 1990 : 23), rather than to show the mere historical facts.

According to her, there is a general tendency of meaning change from a physical one to a more abstract one, as is shown in those above examples. With those etymological data and the case study of modal auxiliaries (Sweetser 1990: chapter 3) and conjunctions (chapter 4 and 5), she argues for her original hypothesis which runs as follows (11).

I am going to argue that our understanding of language use, and our understanding of cognition itself, are inherent underpinnings to all our use of language. We understand both these domains at least partly in terms of the external physical (and social) domain. And we use the same vocabulary in many cases to express relationships in the speech act and epistemic (reasoning) worlds that we use to express parallel relationships in the content domain (the "real-world" events and entities, sometimes including speech and thought, which form the content of speech and thought).

As is shown in that citation, she postulates three fundamental domains, namely *content* (or *physical-social*), *epistemic (reasoning)*, and *speech-act domains* to explain the semantic and pragmatic multiplicity of various lexical items. Conjunction is not an exception. Now I will examine her explication of this category.

She observes that there are three readings for many English conjunctions, each corresponding to one of the three domains as mentioned above. Conjunctions on which she finds this parallel multiplicity of meaning are 'since', 'therefore', 'so', 'although', 'despite', and 'if', for example. For a spatial reason, however, I take up 'because' here and examine her characterization of it. For example, she admits 'because' allowing its multiple readings in the following way (Sweetser 1990: 77).

- (6) a. John came back because he loved her. [content domain]
 b. John loved her, because he came back. [epistemic domain]
 c. What are you doing tonight, because there's a good movie on. [speech-act domain]

On (6a), though it allows at least two readings, the most natural one would be a causal interpretation, which she considers are brought about by the content domain. On (6b), the most natural reading would be an inferential interpretation. She considers it brought about by the epistemic domain. Those two readings almost correspond to the conceptual and procedural readings of relevance theory respectively. According to her, (6c) is a reading of speech-act domain, where the subordinate clause introduced by 'because' is used to give a justification for a speech-act aspect of the main clause (in this case, a question).

What might attract our interests here is Sweetser's interpretation on the multiple reading. She does not admit the existence of lexical ambiguity for those items, nor the lexical polysemy. Instead, she considers the multiple reading as the consequence of *pragmatic ambiguity*, which was originally proposed in Horn's (1985) analysis of 'metalinguistic negation'. Sweetser's own explication is as follows (Sweetser 1990: 76).

I will give arguments suggesting that (at least for some conjunctions) a lexical-polysemy analysis is implausible, and that instead these conjunctions are examples of what Horn (1985) has called pragmatic ambiguity. In polysemy, a morpheme has several related semantic values; in pragmatic ambiguity, a single semantics is pragmatically applied in different ways according to pragmatic context.

As remarkable differences from Blakemore's explanation, we can immediately point out that (i) Sweetser does not admit any semantic multiplicity at all and that (ii) she ascribes the multiplicity to pragmatics, though, about which she does not propose any consistent model at all.

She seems to have quite an opposite view on semantics and pragmatics from the one of relevance theory. On (i), in spite of her insistence on monosemous nature of conjunction, it looks quite strange that she rarely provides the definition of each conjunction, though she claims that epistemic and speech-act readings are based on content reading. She clearly avoids doing it. The reason would be that she considers that each 'meaning' of conjunction is basically *underspecified* and that it does not turn up clear before it is situated in a certain domain. On (ii), she might not be interested in this issue. Nevertheless, we can detect a sign of her particular attitude on this issue when she remarks as follows (Sweetser 1990: 78).

My point, then, is that conjunction may be interpreted as applying in one of (at least) three domains; and that the choice of a "correct" interpretation depends not on form, but on a pragmatically motivated choice between viewing the conjoined clauses as representing content units, logical entities, or speech acts.

Clearly, she does not postulate something like the proposition expressed as a 'self-standing' psychological object as is considered in relevance theory. Instead, she considers that 'the proposition expressed' is also *underspecified* to some degree before it is situated in a certain domain. Though it still remains unclear how the 'relevant' domain is to be selected in her model, her postulation of the combination of minimal meaning and domains would have an advantage in terms of the dilemma relevance theory would confront.

3.3 Schiffrin's (1987) approach: discourse markers

The two approaches we have examined so far focus on relatively 'small' discourse. But Schiffrin (1987) investigates various uses of what she calls *discourse markers* used in larger discourse. In her analysis, discourse markers can be found across several grammatical categories (not just conjunctions), and they are defined as a functional category which serves as bracketing a discourse unit or as marking dependency of a discourse unit on another one. An advantage of this approach can be seen in the following example, in which she shows a difference between 'so' and 'because' in *structural* terms (Schiffrin 1987: 193, emphasis original).

- (7) a. Well we were going up t'see uh... my-our son tonight,
 b. but we're not
 c. **cause** the younger one's gonna come for dinner
 d. **cause** he's working in the neighborhood.

e. **So** that's out.

According to Schiffrin, these utterances are spoken by a single speaker at a certain stage of conversation. In these utterances, the speaker is presenting an explanation on why she and her husband were not going to see their son that evening. Besides the opposite direction in terms of causal and logical relation, which would be able to be grasped in relevance-theoretic framework, Schiffrin further observed that 'so' and 'cause (= because)' *mark* the different levels of discourse. The latter point can be made clearer if we put (7) in the following way (Schiffrin 1987: 193, emphasis original, parenthesis added).

- (7') a. Well we were going up t'see uh... my-our son tonight,
 b. but we're not
 c. **cause** the younger one's gonna come for dinner
 d. **cause** he's working in the neighborhood.
 (so he's gonna come for dinner.)
 (so we're not.)
 e. **So** that's out.

According to Schiffrin, 'cause (=because)' has a relatively *narrower* scope and is embedded in the speaker's explanation, while 'so' has a *wider* scope. In other words, using 'cause' the speaker goes deeper into their own explanation, while using 'so', they go back to the previous issue they raised before. In Schiffrin's technical terms, 'cause (=because)' marks *subordinate idea units* and 'so' marks *main units of discourse*.

She also comments on the traditional issue on the multiple reading of 'because' with her own postulation of the different discourse planes, namely, *ideational structure*, *informational state*, and *action structure*. Though Schiffrin's division is slightly different from Sweetser's in that Schiffrin considers that the first two readings can be seen at the same level (ideational structure) in a way, their positions can be said to be basically similar in that both admit the three readings of 'because'. Moreover, Schiffrin does not consider that the multiplicity comes from the conjunctions themselves, as Sweetser also rendered. Instead, she claims that the multiple readings of 'so' and 'because' are due to "our understandings of causality" (Schiffrin 1987: 211), to each of which she gives the following labels: *fact-based*, *knowledge-based*, and *action-based* 'causal' relation. It made her position much closer to Sweetser's, because the latter also considers content reading, that is, causal relation, is the base for further metaphorical mappings to other domains.

Schiffrin also seems to have a view on the issue of semantics/pragmatics distinction similar to Sweetser's, despite a slight difference between them. The difference is that Sweetser, as we have seen above, avoids positing the meaning of conjunction in an explicit manner, while Schiffrin explicitly uses the phrase "semantic meaning". Schiffrin says "'Because' and 'so' have semantic meanings which are realized at both sentence and

discourse levels: ‘because’ conveys a meaning of ‘cause’, and ‘so’ conveys a meaning of ‘result’.” (201-2) On the cases of ‘so’ and ‘because’, she considers that their linguistic meanings contribute to the directionality of causal and inferential relationship a given utterance expresses.

In fact, her basic assumption is that “the linguistic properties of markers interact with properties of discourse to provide markers with their discourse function” (315). Her preservation of the notion of “semantic (or linguistic) meaning” gives her consideration more wider perspective in terms of the pragmatic side of language use, which Sweetser relatively lacks. After questioning by herself “Can we be more precise about how the meaning of a marker contributes to the interpretation of sequential relations in discourse, i.e. the relation between upcoming utterance and prior talk?” (318), Schiffrin suggests her view as follows (Schiffrin 1987: 318, emphasis original).

I suggest that markers select a meaning relation from whatever potential meanings are provided through the content of talks, and then display that relation.

Sweetser’s (1990) exploration of the multiple readings of conjunction was conducted mainly from the viewpoint of *conceptualization* (Lakoff 1987), which made her analysis short of the consideration like the above. I think, however, that they are quite similar in a fundamental way.

4. On the semantic-pragmatic status of conjunctions

So far I have examined three approaches to conjunctions without relatively much emphasis on the issue of their semantic-pragmatic status.

Relevance theory proposes an inferential process, which can be the model both for the individual’s cognition of the world and for the utterance interpretation. Despite such a wide scope, however, this model postulates the strict propositional representations as its processing units. This postulation makes it difficult to grasp some words or morphemes which appear to have both conceptual and procedural meanings, as we have seen above.

Concerning conjunctions, thus, relevance theory assumes its lexical ambiguity which is to be disambiguated in the pragmatic processes. In contrast, cognitive-linguistic account and discourse-marker approach do not assume such lexical ambiguity. Rather they consider that the multiple reading is due to the multiplicity of the domains or discourse planes where the whole expression is located, and that there is only schematic meaning in a conjunction. In other words, the linguistic property of the whole expression is *underspecified* to some degree and it gains full expressive force with the aid of a particular domain or background discourse.

Quite obviously, even the understanding of conceptual ‘because’ presupposes the context. It is well known that understanding the causal relationship will not be accomplished unless the ‘background theory’ is grasped appropriately. For example, the follow-

ing utterance should not be said to be fully understood if the hearer fails to comprehend the 'background theory'.

(8) Snow fell last night because the temperature was extremely low.

In this case, the background theory is something like a folk meteorology so that the underlying assumption would be "cold atmosphere freezes the drop of water from the sky," for example. However, it is the same assumption when (8) is interpreted as inferential reading. Thus, whenever 'because' is used, the conjunction assigns some constraints on the context, hence it has a procedural nature to some degree.

Thus, as regards to those conjunctions, the conceptual/procedural meaning as a distinct sense would mislead the analysis. The more tenable assumption is that the multiple reading is a result of the multiple domains or different modes of speech, normally in one of which the whole expression (including conjunction) is embedded.

Moreover, if we look at the content reading of 'because' with much attention to its usage, we can see that its role of representing causal relationship is made by a certain contextual environment. On (9a), Sweetser remarks that the fact that Anna loves Victor is *presupposed* when it is interpreted as content reading (Sweetser 1990: 83).

- (9) a. Anna loves Victor because he reminds her of her first love.
 b. Anna loves Victor, because he reminds her of her first love.

In other words, certain informational state of the participants determines the use of the conjunction to some extent. In case of the epistemic use of 'because' as (9b), which is often accompanied with comma intonation, that fact should not be presupposed but asserted.

Given these, it would be safe to say that the function of 'because'-clause is to answer an implicit question in terms of informational management. In other words, the speaker assumes that the hearer has an implicit question and the speaker answers it. In (9a), the fact represented by the main clause is already established, so that its dependency on the fact represented by the subordinate clause can be nothing but an objective-causal relationship; hence content reading. In (9b), the main clause expresses the speaker's belief, so that its dependency on the subordinate clause is nowhere but in the speaker's own informational management; hence, epistemic reading. I will show this viewpoint would be also applicable to the analysis of the multiple reading of 'as'.

5. An analysis of 'as'

At first glance, the meaning and the function of 'as' seem so much diversified that an ESL learners sometimes feel uneasiness in using it during their learning processes. However, the multiplicity would not look so arbitrary if we take into account the similar multiplicity of the other Indo-European vocabulary comparable to 'as', for example,

French ‘comme’ or German ‘als’. Such a cross-linguistic parallelism might suggest that each of several readings of ‘as’ should be regarded as being connected with each other in some way, which I also try to show in the below.

5.1 *Descriptive classification of the usage of ‘as’*

On ‘as’ as a conjunction, at least the following readings are pointed out (The labels are taken from Quirk et al. (1985)).

- (10) a. He came in as I was going out of the door. [Same Time]
 b. As he grew disheartened, his work deteriorated. [Proportion]
 c. She cooked a turkey as her mother did. [Similarity & Comparison]
 d. He came in as his girlfriend was in the room. [Reason]
 e. As you said, George is a liar. [Comment Clause]

(b and e from Quirk et al. 1985: 1077–1118)

Using Sweetser’s (1990) terms, (10a–c) are all content-domain interpretation and all of these examples do not seem to allow other domain interpretation (that is, epistemic and speech-act domain interpretation).⁴ Reason reading of ‘as’ such as (10d) allows all the three interpretations. And (10e), which Quirk et al. classified into Comment Clause, might also allow three interpretations. On this Comment Clause reading, however, I would like to take it up for another occasion since its metalinguistic character requires other considerations which would be beyond the aim of this paper. The relation between the rest of multiple readings and their possible interpretations are given in Figure 1.

	Content dom.	Epistemic dom.	Speech-act dom.
Same Time	Possible		
Proportion	Possible		
Sim. & Comp.	Possible		
Reason	Possible	Possible	Possible

Figure 1. The multiple reading of ‘as’

In the following, I shall take up each of those readings while considering the connections and the differences among them, and show how the speaker uses informational management by using ‘as’.

5.2 *‘Same Time’, ‘Proportion’, and ‘Similarity & Comparison’*

In (10a), ‘as’ indicates the simultaneity of two events, ‘his’ coming in and the speaker’s going out of the door. Though this reading could be comparable to ‘while’, it is normally considered that the event represented by ‘as’-clause should be a *process*, not a state, the restriction which lacks in the case of ‘while’. Thus (11b) sounds strange if it is intended as the Same Time reading.

- (11) a. I am safe while I am here.
 b. ? I am safe as I am here.

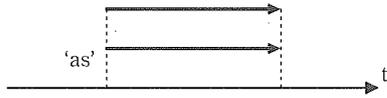


Figure 2.1 Same Time reading of 'as'

This restriction on the Same Time reading of 'as'-clause indicates that it introduces not only the accompanying event but also the temporal *axis* itself, whose role is to provide the flow of the event represented by the main clause. We can represent an image of 'as' of this reading as Figure 2.1.⁵

In Proportion reading like (10b), the role of introducing axis is 'foregrounded' to a further extent than in the Same Time reading. While the temporal flow is presupposed or given in the Same Time reading, in (10b) the 'as'-clause itself gives the 'directional' axis along which the progression represented by the main clause proceeds. It 'frees' this reading from sticking to an actual event and gives it an additional expressive potential, that is, by which a sort of hypothetical situation can be designated. Thus, 'as' in (10b) indicates the fact that the degree of his growing disheartened depended on the degree of deterioration of his work. The following examples reveal it much more clearly.

- (12) This road becomes narrower and narrower as you go further.
 (13) This road becomes narrower and narrower if you go further.

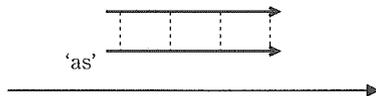


Figure 2.2 Proportion reading of 'as'

(12) and (13) can be said to have almost the same meaning, in that they can be regarded as the predications of the property of 'this road'. Note that the 'as'-clause in (12) does not necessarily express that the hearer ('you') actually goes somewhere along the road. Thus, we can consider the 'as'-clause a hypothetical one, so (12) can be considered as saying almost the same thing as (13) in this regard.⁶ These characteristics of the Proportion 'as' can be represented as Figure 2.2.

In Similarity & Comparison reading like (10c), such a schematic character of 'as' seems to get more abstract flavor. In (10c), the dependency of the main clause on the 'as'-clause does not have to be limited to co-progression of processes, whether actual or hypothetical. Even if there is a case where a co-progression of the two events can be observed as when she cooks the turkey while looking at her mother's way of cooking at the same time, it is still always true that the mother's cooking process does not affect her

daughter's process in any substantial way. In other words, when the mother sautés her own turkey for ten minutes, for example, it does not affect her daughter's turkey in the next pan in any way at all. Such an abstract schematic character of 'as' can be detected much more saliently in the following example, which I also classify into the same type of reading as (10c).

(14) Reading is to the mind as food is to the body.

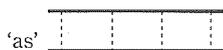


Figure 2.3 Similarity & Comparison reading of 'as'

In (14), the dependency of the main clause (“Reading is to the mind”) on the ‘as’-clause (“food is to the body”) does not include any axis and does not presuppose any processes. Each clause represents just a relationship not an event anymore. Thus it would be safe to suppose that the minimal character of ‘as’ in this reading is just the indication of a correspondence between the two clauses and that the dependency is not lying in the relationship between the events or objective relationships represented by each clause but in the description itself by the speaker, who perceives the correspondence; the hearer’s task is to interpret the particular correspondence the speaker wants to convey. These aspects of this reading might be able to be represented as Figure 2.3, if we keep the convention we used in the above representations.

Given these observations, at least three features can be pointed out on the relationship among the above three readings. First, we can consider a schematic meaning being shared among all of them, as those three figures show. Taking into account the historical fact that the ancestor of ‘as’ is OE ‘alswā’, whose meaning was ‘same’ (Terasawa ed. 1999: 70), it would be safe to identify that schematic meaning of ‘as’ with ‘same’ or ‘corresponding’. Second, in spite of their similarity, those three readings are distinct from one another. They are distinct at least in the way that ‘as’ gets abstractness from Same Time to Proportion to Similarity & Comparison reading. However, what kind of abstractness it is a question hard to answer in this stage. I would like to leave it for further investigation, just pointing it out that it is another kind of abstractness from the one of Sweetser’s three domains. Third, we can point out another similarity among them in terms of informational management: the information contained in an ‘as’-clause is very often the one already known to the hearer or easily expected by the hearer. From this point of view, Same Time ‘as’ has a role somewhat opposite from ‘because’ or ‘when’. In content interpretations of ‘because’, the fact represented by the main clause is often already presupposed as we have seen above. In contrast, the fact represented by the main clause which is followed by Same Time ‘as’-clause is not presupposed. Rather, it is ‘as’-clause that is presupposed, though ‘to presuppose’ is a controversial term. That aspect

might have some relation to a difference between 'as' and 'when', in that only the latter allows 'climatic' use as the following examples show (Quirk et al. 1985: 1084).

- (15) a. I was playing the piano, when there was a knock at the door.
 b. I was watching the television, when suddenly the lights went out.

In both utterances, the more important information is given in the 'when'-clauses. It is obvious that it cannot happen in case of 'as'. This aspect would be much easily noticed in Similarity & Comparison reading, because it may not make sense if what is said 'similar to' or what is compared with is not at all familiar to the hearer. Though Same Time and Proportion reading would be freer from such a constraint than Similarity & Comparison reading, it is often the case that the 'as'-clause is related to the *topic* of the preceding discourse.

In relation to relevance theory, especially on Similarity & Comparison reading, the *procedural* nature might be detected in its interpretation. On (10c), for example, given that 'as' can be paraphrased as 'in a way similar to the way that ...' (Quirk et al. 1985), there are almost an infinite number of possible instances in which the similarity is recognized. The same nature can also be recognized in the interpretation of (14). However, even if we might be tempted to conclude that 'as' in this reading has some procedural function (that is, giving semantic constraints on the relevance of this utterance) in the framework of relevance theory, there is by definition no room for the 'procedural' nature to creep in the 'conceptual' meaning in this framework.

5.3 'Reason'

Roughly speaking, Reason reading of 'as' like (10d) is comparable to 'because' or 'since'. Like 'because' and 'since', Reason reading of 'as' can be found in all the three domains of Sweetser's (1990). The question is, first of all, if it has any relationship with other readings, namely, Same Time, Proportion, and Similarity & Comparison reading. At first glance, it seems unlikely. However, Traugott's (1989) studies on grammaticalization suggests a possible (historical) relationship between Same Time and Reason readings.

Taking up 'since' as an example, Traugott (1989: 50-1) gives a brief reference to its historical path from Time reading to Reason reading. She considers it the *conventionalizing of conversational implicatures* along the lines of the original argument by Geis and Zwicky (1971: 565-6). Assuming that there is also a historical shift in meaning of 'as', we can give a psychological account of the historical shift from Same Time to Reason of 'as' in the same way as their arguments.⁷ Consider the situation where the speaker utters (16) as an answer when someone asked a question on whether Jane still likes John or not, assuming that the speaker follows Grice's second maxim of quality, "Do not say that for which you lack adequate evidence" (Grice 1975: 46).

(16) Jane went out of her room as John came in.

If the hearer assumes the Co-operative Principle and that maxim, they can infer as the speaker's implicature "Jane doesn't like John anymore *because* Jane went out of her room as John came in" or "Jane went out of her room *because* John came in". Generally speaking, even if not in the question-answer situation, it is likely that the speaker put the different events side by side in their speech with another or higher-order intention, which is also relevant for the hearer. Thus it is also likely that Same Time reading of 'as'-clause sometimes had Reason reading in conversational situations, which might have led to its meaning shift.

However, even if the historical path from Same Time to Reason is like this, it remains unclear whether it has psychological implications in the usage of Today's English. However, there are some remarks that the actual usage of Reason reading shows some indication of the trace of Same Time reading. For example, it is reported that there are some cases where *both* Same Time and Reason readings are intended by the speaker, which Biber et al. (1999) calls *blend semantic roles*. Some of their examples are the following (Biber et al. 1999: 847).

- (17) a. She kept her head down as she spotted the news man.
 b. As details of the respective bids were unveiled in London and Delhi, Today's revelations that the TCCB has been outmaneuvered by the subcontinent were confirmed.

According to them, these examples allow both readings at the same time, which are intended by the speaker.

Or, it is said that 'as' with Reason reading is "used when the reason is *already known to the listener/reader*, or when it is not the most important part of the sentence." (Swan 1995: 72, emphasis added) In relation to it, the following remark would be also relevant (Leech and Svartvik 1975: 95).

Now that and *seeing that* are conjunctions which have a meaning very close to *as* and *since*, except that *now that* has also an element of time meaning.

Given these, we can discern the same aspect as in the other three readings from the viewpoint of informational management: the fact introduced by 'as'-clause is *presupposed* or *more accessible* for the hearer.

5.4 Summary

We have so far examined Same Time, Proportion, Similarity & Comparison, and Reason reading of the conjunction 'as'. Using the terms of Sweetser's (1990), the first three readings are located in the content domain. Thus, it is clear that the multiplicity is not brought about by something like Sweetser's three domains. Those utterances all repre-

sent the states of affairs in the world in some way. However it is also untenable if we neglect the connection among those three readings by classifying them as distinct conceptual meanings in relevance-theoretic terms. As seen above, the information introduced by 'as' is more or less accessible to the hearer, which suggests that *procedural* point of view is required. Thus, more plausible (minimal) characterization of those readings of 'as' is like this: The speaker calls for more accessible information by using 'as', while on the whole they are engaging in representing some aspect of the world. Given the analysis of 'as', we can say that *representing* should not be restricted to a matter of truth-conditional semantics, but that it also requires a functional viewpoint. The notion of information management would be able to grasp this aspect.

On the other hand, Reason reading is relatively independent from the other three readings. However, there is some trace of the historical meaning shift, which makes Reason reading of 'as' distinct from 'because' and gives that reading of 'as' a part of its *raison d'être* in terms of informational management.

Should we suppose that the three 'content' readings of 'as' (Same Time, Proportion, and Similarity & Comparison) and Reason reading are a case of lexically ambiguity? Clearly, it is different from the case of 'because' in that Reason reading of 'as' itself allows content interpretation (though it is rather a marginal case). However, it is also clear that it is different from the case of 'bank' or 'bachelor' because they never be used to mean their different senses simultaneously (for example, 'bank' does not mean 'a financial organization' and 'the side of river' at the same time). The different readings of 'as' might come from the nature of informational management, which also connect those readings as we have seen above.

Though further consideration is needed to exhaust the character of 'as', the above analysis would have shown not only properties specific to 'as' but also those common to other conjunctions.

6. Concluding remark

In most cases, the meaning of conjunction is difficult to pin down in representational terms. Some functional perspective is clearly needed for its analysis. In this paper, I have postulated a linguistic agent who uses a certain word while engaging in informational management. Though such an agent cannot be said to be engaging in something comparable to social or organizational acts, it is still safe to suppose that they are engaging in an act of more a fundamental level. Informational management is intended as the term which is to provide such kind of act with its proper background field. As Blakemore (1987) and other relevance theorists insist, certain conjunctions (or discourse connectives) does not always have to be used by the speaker explicitly. It suggests that such conjunctions are rooted in the nature informational management. Given that postulation and the theoretical discussions, I analyzed an English conjunction 'as'. Though 'as' shows much

representational character, which might be more or less due to its original sense 'same' than 'because', I have tried to show that there is informational management even in such a case of *representing* something in the world.

Though the above analysis clearly needs further elaboration, it would open up a possibility of the analysis in which the syntactically simple character of conjunction and their semantic and pragmatic behavior harmoniously related with each other.

Notes

- 1 *Conjunction* and *subordinate conjunction* might sound 'traditional' in the current literature. In fact, there are many terms being proposed in various frameworks: Quirk et al. (1985) uses *coordinators* for 'and', 'but', 'or' and *subordinators* for 'when', 'because', 'if', 'in that', and so on; Celce-Murcia & Larsen-Freeman (1999) uses *coordinating conjunctions*, *conjunctive adverbials* (for example, 'however' and 'so'), and *adverbial subordinators*. As we will see later, Blakemore (1987) likes the term *discourse connectives*; Schiffrin (1987) proposes the notion *discourse markers*. One of the advantages of those terms seems that it includes some complex expressions such as 'in contrast' or 'on the other hand'. However I will keep using the 'traditional' terms, because my aim in this paper is to characterize the semantic-pragmatic function of a single word.
- 2 For example, Traugott briefly shows a subordinate conjunction 'while' developed its concessive sense (procedural meaning, in terms of relevance theory) after the appearance of the temporal sense (conceptual meaning) (Traugott 1982: 254). Her aim in that paper was to show a general tendency of grammaticalization. According to her, a linguistic unit with *propositional* meaning (conceptual meaning, in terms of relevance theory) tends to acquire *textual* or *expressive* meaning (procedural meaning; approximately).
- 3 See their formulations of the first principle of relevance (cognitive principle) and the second principle of relevance (communicative principle) (Sperber and Wilson 1986/1995²: 260-78).
- 4 From now on, I use the term *interpretation* for Sweetser's three categories of reading in order to avoid some confusion, because Sweetser's classification and Quirk et al.'s one use different criterions.
- 5 The two bold arrows indicate the events each represented by the main clause (above) and the 'as'-clause (below). The thin arrow indicates the flow of time (the adscript 't' ahead of the arrow means 'time'). The dotted lines indicate 'correspondence'; in this case, 'the correspondence of time'. This figure is adopted from Koga (1999). His concern in that paper is the tense and aspect of the Same Time 'as'-clause, so that I omit some features that are irrelevant for my argument.
- 6 This line of examination might lead us to suspect that 'as' is a *space-builder* in Fauconnier's (1985) sense.
- 7 According to Terasawa (ed.) (1999: 70), the first appearance of Same Time, Proportion, and Similarity & Comparison readings was in the OE period (A.D. 700-1100), while the first appearance of Reason reading was detected in *Ancrene Riwe* (early ME period, at least before 1200). In the entry of OED2, we can also find the different frequency of the example sentences

cited as Same Time and Reason reading across the years (Figure 3). It also indicates that the first appearance of Reason reading is later than that of Same Time reading.

	Same Time	Reason
13th century	* *	
14th century	*	*(a1400)
15th century	*	
16th century	*	
17th century	*	* * * *
18th century	*	*

(* = 1 instance)

Figure 3. Frequency of the example citations in the 'as' entry of OED2

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