

Unique Signs for Plural Utterances: Alleviating Doubt in the Language Learner

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Abstract

This paper demonstrates the application of the pragmatics of signification and pragmatics of communication to the analysis of the interplay between the speakers of two highly dissimilar languages engaged in meaning negotiation by means of semantic maps. When a language learner's first language and target language have profoundly different systems for encoding meaning, the interpretation and formation of complex second language utterance are at times impeded by the learner's lack of a confident mapping between meaning and second language syntax. In Japanese, written signs carry meaning, but in many cases do not speak, or do not speak unambiguously. As well, Japanese is a left-branching language, and thus clause semantic completeness is not the primary processing unit in initial segmentation (whereas it is the primary unit in English). This results in a mindset where written utterance need not speak, is not expected to speak, yet where rich meaning does arise. Some Japanese college level learners of English, dubbed 'false beginners,' have acquired English vocabulary and grammar knowledge in six years of high school study but, resuming their study of English in college, they appear unable to make sense of, or sense with, strings of English lexical units. This paper presents information structure maps (ISmaps), the author's system for low-text representation of the structured information represented in a constrained body of utterance. ISmaps provide an 'interlanguage' for a restricted domain of English utterance, i.e. sentence level utterances consisting of logically related atomic lexical units with concrete referents. After using this mapping tool for meaning clarification for a brief period of time, false beginners have rather consistently demonstrated willingness to interpret received English utterance, and to engage in the risky business of producing English utterance to convey meaning. Rational use of ISmaps as a tool for professional second language teaching work requires a theoretical characterization of how the tool functions, and to this end, the paper takes two pragmatics approaches to explain the apparent success of the system in overcoming second language learner doubt. CV: Lawrie Hunter directs the critical thinking and English academic writing programs at Kochi University of Technology, Japan. His research interests include educational document design, concept mapping, computer assisted language learning, and hypertext for second language learning.

This paper takes up the pragmatics of signification and pragmatics of communication in the analysis of Japanese English learners' apparent preference for one concept mapping style, ISmapping, over others as a medium for negotiating meaning in technical English. Here the first language (Japanese) and the target language (English) have profoundly different systems for encoding meaning, and as a result the learner's interpretation and formation of complex second language utterance are at times impeded by a lack of a confident mapping between meaning and second language syntax. The source of this learner preference is surely complex: thus here only an initial search for and exploration of the factors which may account for the semiotic success of ISmaps.

1. THE NEED FOR AN INTERLANGUAGE

Some Japanese college level learners of English, dubbed 'false beginners,' have acquired English vocabulary and grammar knowledge in six years of high school study but, resuming their study of English in college, they appear unable to make sense of, or sense with, strings of English lexical units. Japanese learners' difficulties in encoding/decoding English utterance suggest the use of a low-text graphical representation system as a meaning clarification medium.

2. CONCEPT MAPS: A HEURISTIC INVASION

The author has done extensive informal experimentation with three low-text graphical representation systems, mind maps (Buzan & Buzan, 1993), Cmaps (Cañas et al, 2004), and ISmaps (Hunter, 2002), as portrayed in terms of mapping domain in Figure 1.

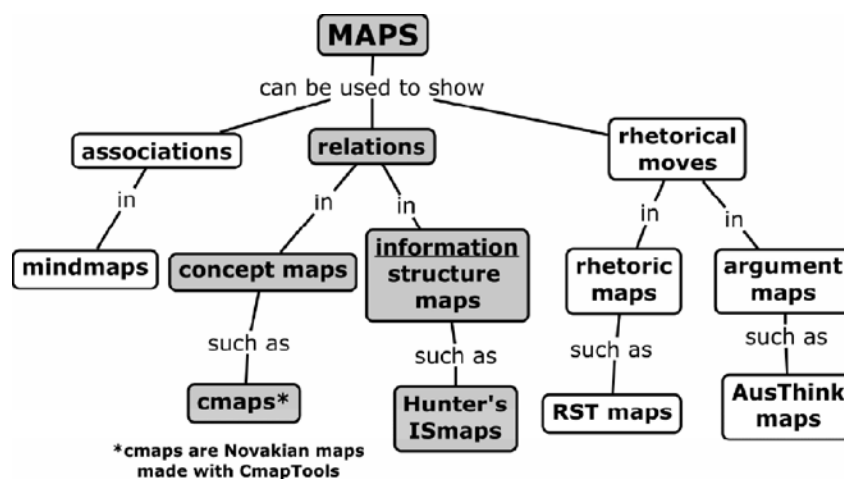


FIGURE 1. MAPPING TYPES, SHOW IN TERMS OF REFERENT DOMAINS

Mind maps consist of nodes, or balloons, each containing one or several words, linked by lines which signify some kind of association. Since the nodes are undifferentiated, the mind

mapping system has no granularity at the level of syntax. The Japanese learners of English studied here have consistently expressed dissatisfaction with mind maps as a meaning negotiation interface, citing vagueness and insufficient expressiveness as reasons.

Cmaps are an instance of Novakian maps (Novak and Cañas, 2006). Novakian maps are similar to mind maps, except that in Novakian maps each link represents a relation which is always signaled by a text label on the link.

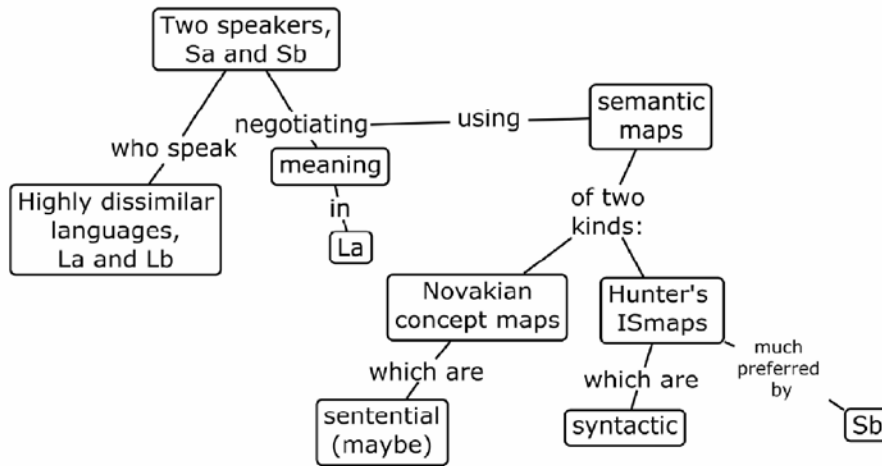


FIGURE 2. A CMAP OF THE STRUCTURE OF THIS PAPER

ISmapping (information structure mapping) is the author’s system for low-text representation of the structured information represented in a constrained body of utterance, i.e., the set of sentence level utterances consisting of logically related atomic lexical units, further constrained to include only utterances with concrete referents. ISmaps serve as an ‘interlanguage’ for Japanese learners of English for expressing information within that restricted domain of English utterance.

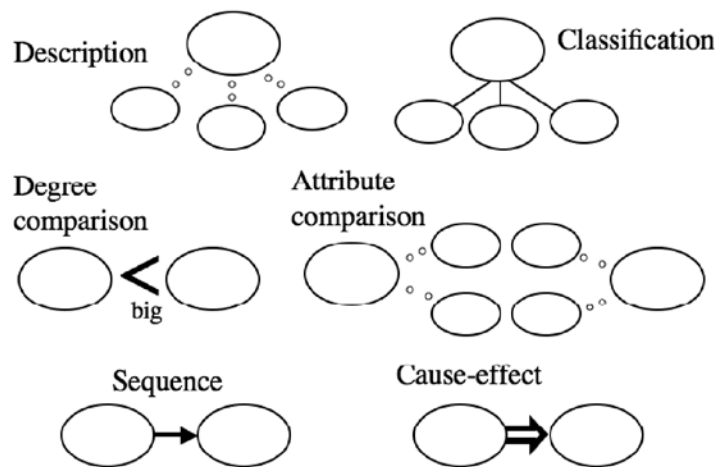


FIGURE 3. THE ESSENTIAL ELEMENTS OF THE ISMAPPING SYSTEM

Viewing the second language learning/use scenario as a mapping scenario, the author introduced three low-text mapping systems (mind maps, Cmaps, and the author's ISmaps) as 'interlanguage' for instructor-learner negotiation of meaning in English and for exploration of the effectiveness of low-text mapping as a language task sign system.

For example, the English utterance: *Skyscrapers, usually found in big cities, are higher than ordinary apartment buildings*, presents decoding difficulties to the Japanese learner. Ethnographic observation shows that often such learners will not confidently generate the Japanese equivalent, structured as: *Big city de can be seen skyscraper no hou ga ordinary no apartment yori high desu*.

The Japanese learner can be given the ISmap seen in Fig. 4 as a graphical support for encoding/decoding the above utterance into/from English.

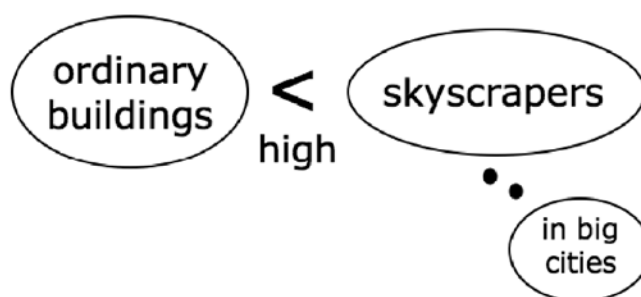


FIGURE 4. EXAMPLE OF A CLARIFYING ISMAP.

Here the lexical items in the utterance are all known: only unsureness about syntactical equivalence is impeding the learner's interpretation of the utterance. There is no inherent logic (in the abductive/inductive/deductive sense) underlying natural language syntax, only convention. The graphical support in figure 4 serves to assure the learner that the content of the utterance is within his/her grasp.

3. SERENDIPITY: IMMEDIATE, STRONG PREFERENCE

After using the ISmap tool as a meaning clarification medium for a brief period of time, these Japanese false beginners rather consistently began to demonstrate new willingness to interpret received English utterance, and to engage in the risky business of producing English utterance to convey meaning. Further, the learners predominantly expressed strong preference for ISmaps over both mind maps and Cmaps.

As well, the learners quite uniformly reported that Mind Maps were uninteresting, and many subjects rejected Cmaps from the outset (often never having used them). The use of ISmaps, and of the represented information structures as a frame for learning materials creation, proved so popular that both have been incorporated into commercial textbooks (Greene and Hunter, 2002; Hunter, 2007).

4. SEARCH FOR ANALYTICAL TOOLS

Rational use of ISmaps as a tool for professional second language teaching work demands a theoretical characterization of how the tool functions. Semiotic analysis at the levels of signifier/message/interpretant and iconicity seems to afford only a taxonomic labeling of components of the scenario, but does not readily suggest an inroad to identification of the dynamics of the phenomenon under examination.

Eco (1990, 212) suggests a seemingly appropriate approach rooted in open, empirical observation:

We should conceive of two different pragmatic approaches: a pragmatics of signification (how to represent in a semantic system pragmatic phenomena) and a pragmatics of communication (how to analyze pragmatic phenomena that take place in the course of a communicative process).

Such phenomena as textual co-reference, topic, text coherence, reference to a set of knowledge idiolectally posited by a text as referring to a fictional world, conversational implicature, and many other phenomena concern an actual process of communication and cannot be foreseen by any system of signification. Other phenomena, such as presupposition, prediction of ordinary contexts, rules for felicity conditions, and so on, can, as we shall see, be considered by the study of a coded system of signification, to describe which both the semantical and the pragmatological approaches are strictly and inextricably interrelated.

The following sections report the findings of a naïve application of those two pragmatics approaches as means of explaining the apparent success of the system in overcoming second language learner doubt.

4.1 Analytical tools to explain success: pragmatics of communication

In the application of a pragmatics of communication to explore the workings of the ISmap success, three useful communication related tools were found within this framework: cultural Japanese-English (J-E) difference knowledge; linguistic J-E difference knowledge, and psychological (language development) knowledge related to J-E difference.

A number of cultural features are potential factors in student reluctance to encode/decode English utterance. In Japanese society, reticence is cultivated in the young. Speaking one's opinion before one's elders is seldom done. As well, since English is an examination subject in secondary school, perfectionism in the sense of wishing not to err grammatically is frequently observed; thus English as necessarily perfect is a young culture meme. Further, there has for decades been a rather general defeatist ethos in Japan regarding communication in English; though this is weakening now, it persists in many young people.

Communication related linguistic phenomena which may influence decoding reticence in Japanese include the following. First, Japanese syntax is not S-V-O, and is much less rigidly prescribed than English syntax. Second, the characters of written Japanese are logographs (Matsunaga, 1996) with no inherent sound attached, whereas English words are phonetic encodings.

As well, psychological phenomena related to first language acquisition of Japanese and English are relevant to the question under examination. In Japanese, individual written signs carry meaning, but in many cases do not speak, or do not speak unambiguously. Japanese is a left-branching language, and thus clause semantic completeness is not the primary processing unit in initial segmentation, whereas it is the primary unit in English (Mazuka 1998: 65). This results in a mindset where written utterance need not speak, is not expected to speak, yet where rich meaning does arise.

4.2 Pragmatics of signification

In the application a pragmatics of signification to exploration of the workings of the ISmap success, theoretical tools which proved useful within this framework were:

- Visual Design Grammar / Systemic Functional Linguistics;
- Conceptual Integration Theory / Dual Coding Theory
- Metaphor comprehension studies

Visual Design Grammar says that layout in mixed media in English signifies rhetorical relationships in two ways: left, central and right images or texts are GIVEN, Mediator and NEW, respectively, while top, central and bottom images or texts are IDEAL, Mediator and REAL (Kress and van Leeuwen, 1996). See Figure 5.

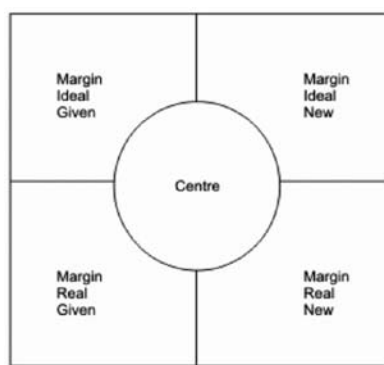


FIGURE 5. RHETORICAL FEATURES AS SIGNIFIED IN ENGLISH DOCUMENT LAYOUT. FROM KRESS AND VAN LEEUWEN 1996: 184.

This formalized approach to rhetorical features is not present in Japanese media and graphic arts. Furthermore, Systemic Functional Linguistics, surely the precursor of Visual Design Grammar, says that rhetorical cohesion hinges on GIVEN, what the listener / reader already knows, and NEW, what the speaker/writer is going to 'break.' (Halliday 1985: 132). Dominant Japanese rhetorical schemes do not generally include Given/New.

Conceptual Integration Theory (Fauconnier and Turner, 2002) says that metaphor is the combining of disparate FRAMES, i.e., conceptual blending, through which we realize great economy/synergy of thought. Then ISmaps, as a graphical mapping of semantic features, must be an instance of conceptual blending. Conceptual blending must be culture-dependent, however, which gives rise to the question, are some mapping systems more accessible to members of a

given culture than others? A second question, related to cognitive load, is what kind of memory is involved in the storage of the information carried in text, high-text maps and low-text maps. Figure 6 sketches the surrounding frame.

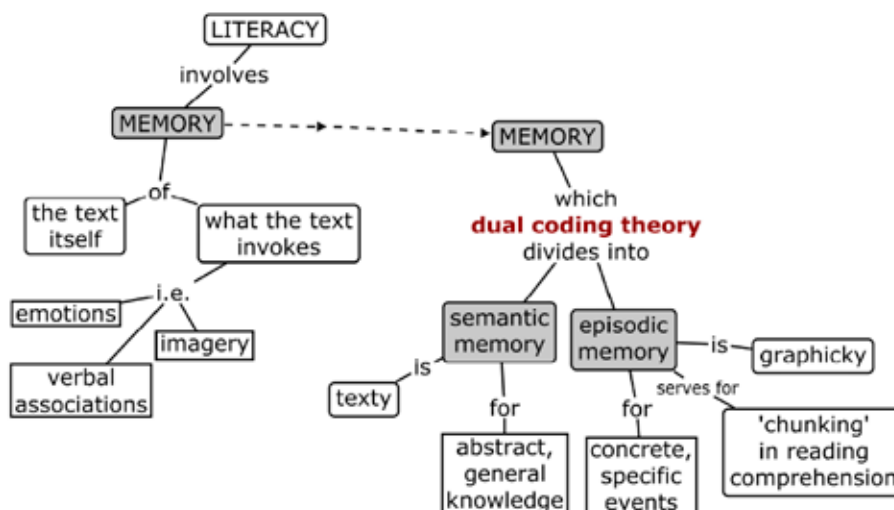


FIGURE 6. LITERACY AND MEMORY (BASED ON FAUCONNIER AND TURNER 2002: 213-214)

Maps are instances of conceptual blending, and conceptual blending is metaphorical behavior; then discussion of mapping systems must eventually turn to the topic of metaphor comprehension. Different from English, Japanese is a between-the-lines language: recent research suggests that in Japanese, metaphor priming effects are derived from syntactic factors. There is evidence to suggest that Japanese processing of metaphor, when primed with base (inverted form of metaphor), is faster than when primed with target (Kurosawa & Kawahara 1999: 75). This is at odds with recent findings about the primacy of abstraction factors in metaphor comprehension in English, a specificity-oriented language (Gentner and Wolff, 1997).

5. DISCUSSION

This paper used two approaches, pragmatics of signification and pragmatics of communication, in a tentative analysis of Japanese English learners' apparent preference for one concept mapping style over others as a medium for negotiating meaning in technical English. The exploration identified a number of important other questions regarding the Japanese learner of English, rhetorical structures, visual information design, and the metaphorical nature of low-text mappings. Also of interest is the related question, what are these 'information structures' represented in ISmaps? Do they represent a distinct and complete set of relations in some definable domain? Or are they perhaps 'structural memes', some set of established structures that have a life outside language, and in fact are only secondarily signaled by language? Certainly pragmatics of signification and pragmatics of communication will provide a clarifying overarching framework for exploration of these questions.

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