

# **Correlations between English Preposition and Verbs in understanding the sentences by Second Language Learners of English**

**Norifumi Ueda**  
**(Waseda University)**

## 1. Purpose

In this study, we examine how second language learners of English understand the meanings of an English preposition.

## 2. Properties of Semantic categories and prepositions in Cognitive Semantics

In cognitive semantics, properties of categories are: (1) gradedness, (2) fuzziness of boundaries and (3) partial overlap. These features are true of English prepositions. In Schlesinger (1995) the subjects were asked to judge to what extent 'with-phrase' in 10 deferent sentences was an instance of the notions of *Accompaniment* and *Instrument*, and found English prepositions have these features: gradedness, fuzziness of boundaries and partial overlap.

In cognitive semantics, word meanings have semantic networks, and peripheral meanings are radiated from the core meaning (Lakoff 1987. Sandora, D. and Rice, S. 1995). Dewell (1994) examine the relations, or semantic networks, of each meanings in an English preposition, 'over' and how to extend each meaning from the core meanings by using ICM.

## 3. Experiment

### 3.1. Research Questions

Dewell's way of description is theoretical. So it is helpful to explain how second language learners of English (SLLE) understand meanings in a preposition. However, if we use sentences including the target preposition as research materials, we have to consider more about other factors than semantic networks, because there is a possibility that SLLE use much information to judge the meaning of a preposition used in a sentence in understanding it.

In this research, we examine:

- (1) By what factor(s) do L2 learners understand the various meanings of a preposition, 'to'?

(2) Can verbs give any effects to L2 learners in understanding the meanings of 'to'?

### 3.2. Subjects and Materials

Subjects (Ss) were 18 Japanese university students, whose major is not English language.

Materials were 14 English sentences containing 10 different verbs.

Table 1: Sentences

No.	Sentences
1	The man turned to the left
2	She went to the library this morning.
3	She walked to the tree and touched it.
4	He's been a good friend to us over the years.
5	The teacher gave a chance to me.
6	The building is next to the river.
7	The roots of this plant go to deep.
8	She's standing next to him.
9	The man turn to the right at the next corner.
10	He looked to her for support.
11	This belongs to her.
12	I'm taking the train to Chicago.
13	There is nothing to him but skin and bones.
14	Are you referring to his work?

Before Experiment, we analyzed the sentences from the perspective of:

- (1) whether the subject is human or not
- (2) what kind of category such as action and movement a verb fall in
- (3) what kind of meaning such as locative and allative a preposition has in each sentence
- (4) whether element after the preposition is human or not.

Table 2 shows the results of analyzing the sentences.

Table 2: The results of analyzing the sentences.

No.	Sentences	Verb	category	S=H	locative	allative	pre=H	meaning
1	The man turned to the left	turn	action	+		*	-	direction
2	She went to the library this morning.	go	movement	+	*		-	place
3	She walked to the tree and touched it.	walk	movement	+		*	-	place??
4	He's been a good friend to us over the years.	be	stative	+		*?	+	domain
5	The teacher gave a chance to me.	give	giving	+		*?	+	place??
6	The building is next to the river.	be	stative	-	*?		-	place
7	The roots of this plant go to deep.	go	movement	-		*?	-	direction
8	She's standing next to him.	stand	stative	+	*?		+	place??
9	The man turn to the right at the next corner.	turn	action	+		*	-	direction
10	He looked to her for support.	look	action	+		*	+	target
11	This belongs to her.	belong	stative	-	*?		+	domain
12	I'm taking the train to Chicago.	take	action	+		*	-	direction
13	There is nothing to him but skin and bones.	be	stative	-	*??		+	domain
14	Are you referring to his work?	refer	action	+		*??	-	domain

Notes: S=H means the subject is human, and Pre=H, the element after the preposition is human.

### 3.3. Procedure

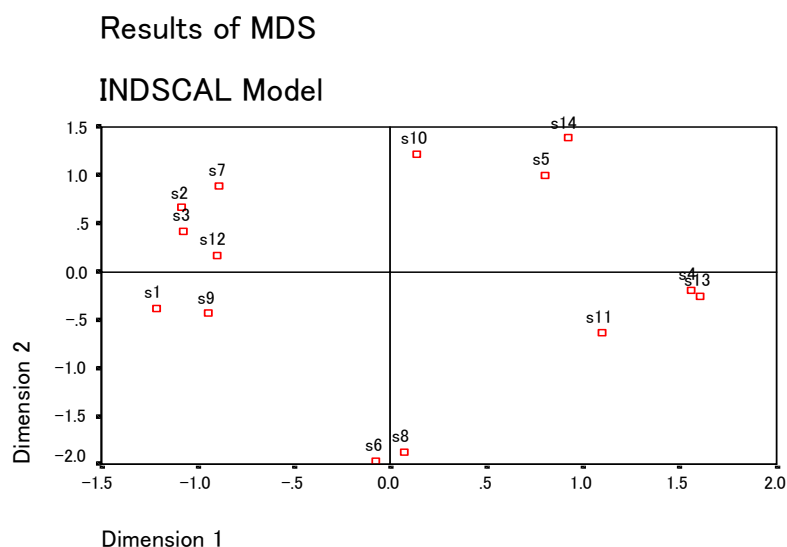
We asked Ss to judge the similarities between the different meanings of 'to' by 7-point scaling. The results were analyzed by INDSCAL model of multidimensional analysis.

### 3.4. Results

From the results, we got 2 dimensions (Stress = 024164 RSQ = .68292). As can be

seen in Configuration, S 1, 2, and 3 are at one side along Dimension 1, and S13 and 4, at the other. In the case of S 1, 2 and 3, the relation between elements after the preposition and verbs is the elements are the goal or direction the subject moves to. On the other hand, in the case of S 13 and 4, the preposition shows the relations between the elements before the ‘to-phrase’ and those after the preposition, which means something concerning the elements after the preposition, or concerning some domain of the elements after the preposition. Hence, we name Dimension 1 ‘direction – domain’. S 6 and 8 are located at the extreme of one side along Dimension 2, and S 14 and 10 are at the other. The verbs of S6 and 8 are a stative verb and those of S 14 and 10, a motion verb. So, we interpret Dimension 2 as ‘motion-state’.

#### Configuration



#### 4. Conclusion and Discussion

From the results of Experiment, we can say that a preposition ‘to’ has gradient semantic networks, and the way of extension is not based on the meanings of the preposition, but on its environment. When Ss judged the meanings, Ss use much information such as verb meaning and environment of preposition, that is, elements before and after the preposition. And also verb meanings can give some effects on Ss’ understanding the meanings of ‘to’.

References:

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