

# Dative as Semantic Structural Case

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**Jong Sup Jun. 2003. Dative as Semantic Structural Case.** *Language and Information 7.1*, 69–85. Contrary to the popular view that dative is idiosyncratic to verbs or particular theta roles, the distribution of dative is predictable from the distribution of other cases like nominative, accusative, instrumental, etc. That is, dative behaves like an unmarked or elsewhere choice for Non-Actor/Non-Patient (=NANP) roles. This paper develops a theory of semantic structural case under the framework of conceptual semantics (Jackendoff 1983, 1990, 1997, 2002). In my proposed analysis, dative is structurally mapped onto NANP entities in the conceptual structure. Important consequences about other peripheral roles are discussed in section 5. (Seoul National University)

**Key words:** dative, case, conceptual structure, case-in-tiers, linking

## 1. Introduction

Dative does not play a central role in many theories: it is characterized as *idiosyncratic* to verbs or particular thematic roles (Chomsky 1981, 1995; Bresnan 1982; Pollard & Sag 1994). Contrary to this view, not a few scholars have observed the regularity of dative as an unmarked choice for most peripheral roles (Silverstein 1976; Haviland 1979; Quirk & Wrenn 1957; Lass 1994; Van Valin 1991; Van Valin & LaPolla 1997; Alsina 1996, 1997; Wegener 1991; Nikanne 1993). This paper stands in the latter tradition, and aims at providing principled explanation for the regularity of dative, esp. its predictable distribution on many peripheral roles. The major claim is that dative is a default choice for most, if-not-all, Non-Actor/Non-Patient (=NANP) roles.

The paper has the following organization. Section 2 presents both theoretical and empirical problems of dative. Section 3 reviews earlier studies on dative. Section 4 develops formal machinery for semantic structural case under the frameworks of conceptual semantics and the case-in-tiers (=C/T) theory (Jackendoff

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1983, 1990, 1997, 2002; Yip, Maling & Jackendoff 1987; Maling, Jun & Kim 2001; J. S. Jun 2003).<sup>1</sup> Section 5 presents empirical consequences of the theory.

## 2. Problems of Dative

### 2.1 Dative is not responsible for the dative meaning

Since Jakobson's (1971) semantic feature decomposition of case in Russian, where dative itself had the value [+Marginal, -Quantifying, +Ascriptive], many scholars (esp. cognitive linguists) have explained the regularity of dative in terms of the dative meaning (Van Hoecke 1996 for Latin; Melis 1996 for French; Delbecque & Lamiroy 1996 for Spanish; Berlinck 1996 for Portuguese; Draye 1996 for German; Van Belle & Van Langendonck 1996, Geeraerts 1998 for Dutch; de Stadler 1996 for Afrikaans; Rudzka-Ostyn 1996, D?browska 1997 for Polish; Pasicki 1998 for Old English, *inter alia*).<sup>2</sup> In this neo-Jakobsonian tradition, dative is associated with certain thematic roles or semantic generalizations.

We are not *completely* sure whether dative-marking or something else is responsible for the dative meaning. In many languages, peripheral roles are expressed by peripheral case-marking. In Pitta-Pitta, adjunct theta-roles like location, destination, purpose, and cause are expressed by direct case-marking, as shown below.

- (1) a. *naŋka-ya ŋan<sup>y</sup>t<sup>y</sup>a kunti-ina*  
 sit-Pres I house-LOC  
 'I am sitting **in the house**'
- b. *paŋipi-inu ŋan<sup>y</sup>t<sup>y</sup>a kaŋa-ya kupi-ŋa*  
 creek-ALL I go-Pres fish-PURP  
 'I am going **to the creek for fish**'
- c. *mali-la ŋan<sup>y</sup>t<sup>y</sup>a karrat<sup>y</sup>i-ya*  
 cold-CAU I shiver-Pres  
 'I am shivering **from the cold**' (Blake 1979: 197-198)

It is not entirely right, however, to say that peripheral case-marking is responsible for peripheral roles. Prepositions take the place of semantic case-markers in many

<sup>1</sup> One reviewer points out that it is unclear what I mean by *semantic structural case*, since structural case is syntactic case in standard approaches. Recent finding, however, shows that semantics is just as configurational, structural, and autonomous as syntax (Jackendoff 1990, 1997, 2002). Syntactic structural case is assigned with reference to the structural configuration of syntax; semantic structural case is assigned with reference to the structural configuration of semantics. See J. S. Jun (2003) for details.

<sup>2</sup> I take the standard view of case that case is "a system of marking dependent nouns for the type of relationship they bear to their heads (Blake 1994, 1)". In this restricted view of case, case is merely the distribution of nominals with respect to their morphological identity (Joan Maling p.c.; J. S. Jun 2003). Hence, dative is most reliably determined on the basis of the morphosyntactic ending or form. The types of relationship dative-marked dependents bear to their verbal heads are the dative meaning (Van Belle & Van Langendonck 1996; Van Langendonck & Van Belle 1998).

Indo-European languages, which is illustrated in the English translation for the three Pitta-Pitta sentences in (1).

An important question arises concerning dative: Is it the dative-marking or something else (e.g. adposition) that is directly responsible for the dative meaning? One may assume that it is a parametric variation for a language to choose either the morphological marking or the adposition for certain peripheral roles. Old English data show that this assumption is not tenable.

- (2) a. **wīc-um**      wunian      (Beowulf: l. 3083)  
           houses-DAT live  
           ‘to live in the houses’
- b. **on sele**      wunian      (Beowulf: l. 3128)  
           in hall-DAT live  
           ‘to live in the hall’

The dative meaning *location* is expressed by the dative case-marking in (2a) and by the preposition *on* in (2b).

It is a paradox that dative-marking is sometimes responsible for the dative meaning as in (2a), and other times is not as shown in (2b). The paradox does not arise in conceptual semantics, where the conceptual structure is an independent level of grammar distinct from syntax and phonology. Rather than attributing the dative meaning to syntactically/phonologically visible elements like adpositions or case-markers, we maintain that the dative meaning comes directly from place/path functions in the conceptual structure. These functions may or may not have syntactic/phonological correspondents (e.g. adpositions), but are expressed in the conceptual structure with relevant semantic arguments in any event.

- (3) [STAY<sub>live</sub> ([X]<sub>A</sub>, [Place IN([Y]<sub>(A)</sub>)])]

Neither the dative case nor the preposition is responsible for the dative meaning. It is the place function IN in (3) that takes care of the dative meaning.

This suggests that the neo-Jakobsonian tradition to focus on the dative meaning to explain dative phenomena might be on the wrong track. Also, this reminds us of the often-neglected but obvious fact that dative is not in complementary distribution with adpositions. In other words, dative *can* and (sometimes) *should* co-occur with another adposition. For instance, in the Korean linguistics literature, there is debate on whether *-eykey* in (4) is the dative particle or a postposition (O’Grady 1987; Urushibara 1991; T-S Ywu 1995; C-S Suh 1996; H-P Im 1987).<sup>3</sup>

- (4) a. Inho-ka Mina-eykey      phyenci-lul pat-ass-ta  
           I-NOM M-POSP/DAT??? letter-ACC receive-Pst-Dec  
           ‘Inho received a letter from Mina’

<sup>3</sup> Two anonymous referees indicate that (4a) is unacceptable with the intended meaning, i.e. the source reading for *Mina*. Two things are worth mentioning. First, some descriptive works on Korean consider (4a) fully acceptable (e.g. H-M Sohn 1999). Second, it does not matter whether or not (4a) is acceptable to some speakers; (4b) shows that the postposition/dative debate is *still* there regardless of the acceptability judgment for (4a).

- b. Inho-ka Mina-eykey phyenci-lul ponay-ss-ta  
 I-NOM M-POSP/DAT??? letter-ACC send-Pst-Dec  
 'Inho sent a letter to Mina'

If it turned out that the suffixed element is the dative particle in (4), it could be the end of the story. On the contrary, if it turned out that the suffixed element is a postposition, we would be still left with the question of what (*abstract*) case the postpositional object gets (cf. Chomsky's 1981 *Case Filter*). Having no clear answer to this hard question, I prefer to analyze *-eykey* as a dative-marker rather than a postposition.<sup>4</sup>

## 2.2 Dative is mostly predictable from the distribution of other cases

Crosslinguistically, dative is used for a number of peripheral roles as the *unmarked* choice. In Old English, adverbial NPs were more likely to be in dative than any other case (Quirk & Wrenn 1957; Lass 1994). In Greek, dative is the syncretism of the Indo-European dative, locative, and instrumental (Lass 1994). The most neutral case for Guugu Yimidhirr, an Australian language, is dative (Haviland 1979). These languages have a couple of specialized cases for a handful of peripheral roles (e.g. instrumental, causative, etc.); all the remaining roles in the periphery get dative by default. In consequence, dative occurs on a number of peripheral roles, but is predictable from the distribution of other marked cases (Van Valin & LaPolla 1997).

In Korean, dative occurs on a number of peripheral roles, but is still predictable as the unmarked/elsewhere choice.

- (5) a. Goal/Recipient (IOs):

Inho-ka emeni-eykey/kohyang-ey senmwul-ul ponay-ss-ta  
 I-NOM mother-DAT/home-DAT gift-ACC send-Pst-Dec  
 'Inho sent gifts to his mother/home'

- b. Destination:

Inho-ka sensayngnim-eykey/hakkyo-ey ka-ss-ta  
 I-NOM teacher-DAT/school-DAT go-Pst-Dec  
 'Inho went to his teacher/school'

- c. Static location:<sup>5</sup>

<sup>4</sup> A possible candidate for a sure postposition in Korean is *-(lo)puthe* 'from'.

(i) Inho-ka Mina-eykey-loputhe phyenci-lul pat-ass-ta  
 I-NOM M-DAT-Posp letter-ACC receive-Pst-Dec  
 'Inho received a letter from Mina'

The fact that *-(lo)puthe* can co-occur with *-eykey* is consistent with my assumption that case is not in complementary distribution with adpositions, if *-eykey* and *-(lo)puthe* are dative and a postposition respectively.

<sup>5</sup> An anonymous reviewer suggests sentences like *Inho-eykey ku chayk-i iss-ta* 'Inho has the book', and *i os-i Inho-eykey ewuli-n-ta* 'These clothes suit Inho well' as possible data for *animate* static location. Although *Inho* is neither an actor nor a patient (hence NANP) in these sentences, the dative-marked NP seems to be the subject of both sentences, as shown by the honorific agreement; *sensayngnim-eykey ku chayk-i iss-u-si-ess-ta* 'The teacher

**ce kongwen-ey** Seycong taywang-uy tongsang-i iss-ta  
 that park-DAT S Emperor-GEN statue-NOM be-Dec  
 ‘Emperor Sejong’s statue is in that park’

## d. Point in time:

Inho-ka **yel si-ey** wa-ss-ta  
 I-NOM 10 O’Clock-DAT come-Pst-Dec  
 ‘Inho came at 10 O’Clock’

e. Age ( $\in$  Point in time):

Inho-ka **yel sal-ey** mikwuk-ey ka-ss-ta  
 I-NOM 10 age-DAT America-to go-Pst-Dec  
 ‘Inho went to America at the age of 10’

## f. Proportion:

i os-i **sip pwul-ey** twu kay-i-ta  
 this clothes-NOM 10 dollars-DAT 2 suit-be-Dec  
 ‘(We/You/They buy) 2 suits of clothes per 10 dollars’

## g. Reference:

i yak-i **mom-ey** coh-ta  
 this medicine-NOM body-DAT good.be  
 ‘This medicine is good to health’

## h. Source:

**emeni-eykey** ton-i wa-ss-ta  
 mother-DAT money-NOM come-Pst-Dec  
 ‘Money came/arrived from my mother’

## i. Cause:

I-ka **kamki-ey** kel-li-ess-ta  
 I-NOM cold-DAT hang-Pass-Pst-Dec  
 ‘Inho caught cold’

## j. Agent in passive:

Inho-ka **kay-eykey** mul-i-ess-ta  
 I-NOM dog-DAT bite-Pass-Pst-Dec  
 ‘Inho was bitten by a dog’  
 (cf. kay-ka Inho-lul mul-ess-ta ‘A dog bit Inho’)

The distribution of dative is not easy to explain in terms of the semantic roles. Nevertheless, the occurrence of dative is quite predictable if we know the distribution of other cases like nominative, accusative, instrumental, etc. For

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had the book’, and *sensayngnim-eykey i os-i (cal) ewuli-si-ess-ta* ‘These clothes suited the teacher well’. The dative subject construction, although appropriate as examples of the dative on NANP roles, is beyond the scope of this paper. For more about the conceptual semantic treatment of the dative subject construction, see J. S. Jun (2003, pp. 322-339).

instance, in (6), once nominative, accusative, and instrumental are determined, all other NPs get dative.

- (6) *senmul-i emeni-eykey yeltwu si-ey cip-ey*  
 gift-NOM mother-DAT 12 O'Clock-DAT house-DAT  
*DHL-lo tochak-hay-ss-ta*  
 DHL-INST('with') arrival-DO-Pst-Dec  
 '(Lit.) The gift arrived at my house from/to my mother at 12 O'Clock  
 by DHL'

Dative behaves like the *unmarked* or *elsewhere* choice for most peripheral roles.<sup>6</sup>

To sum up, the theoretical problem is that dative-marking is not responsible for the dative meaning. The empirical problem is that dative, though recalcitrant in nature, is mostly predictable from the distribution of other marked cases. These are not trivial problems, and pose a challenge to many earlier studies.

### 3. Earlier Studies

There are three possible approaches to dative: (i) dative is idiosyncratic or (quasi)-randomly assigned; (ii) dative is thematically delimited; and (iii) dative is structurally determined.

#### 3.1 Dative is idiosyncratic

Theories like GB/MP (Chomsky 1981, 1995) and early LFG (Bresnan 1982) do not have much to say about dative except that it is an idiosyncratic property to verbs. Nevertheless, dative is not treated as completely quirky in these theories. Recipient, beneficiary, and experiencer are all goals or goal-like roles (cf. Kiparsky 1987; Maling 2001). Since dative is cross-linguistically the case for goal, the lexical dative on recipient, beneficiary, and experiencer is thematically motivated. What is not studied well in these frameworks is the dative case on non-arguments. As I discussed in 2.2, dative behaves like the default choice for peripheral roles in many languages. Crucially, the dative on non-arguments is predictable from the distribution of other cases. Those who believe that dative is lexical do not have much to say about the dative on non-arguments and its predictable behavior. On the other hand, cognitive linguists study a broader range of data, and try to explain the dative on both arguments and non-arguments in terms of the thematic content

<sup>6</sup> Many Korean linguists feel uncomfortable in treating *-ey* on non-arguments (i.e. adjuncts) as dative (Ki-Sun Hong, p.c.). They want to restrict the use of dative to verbal arguments. This is due to the belief that dative is the case for the indirect object, and that adverbials are not structurally case-marked. Neither assumption is tenable, though. First, neither grammatical function nor thematic role can define dative. Dative cannot be defined as the case for the indirect object; there are dative subjects and even non-dative IOs (e.g. Icelandic, Maling 2001). Second, contrary to the common belief, it is cross-linguistically very common for adverbials to be structurally case-marked. Li (1985) suggests structural case for certain adverbial NPs in Chinese; Maling (1989) and Maling, Jun & Kim (2001) discuss structural case-assignment for frequency/duration adverbials in Korean; Maling (1993) discusses structural case assignment for Finnish adverbials; and Fowler & Yadoff (1993) discuss accusative measure nominals in Russian. For these reasons, I do not feel uncomfortable at all in discussing the dative case on adjuncts.

of dative (i.e. the dative meaning). This is one reason I separate GB/MP/LFG from cognitive linguists even though the idiosyncratic information for dative *can* be thematically motivated in GB/MP/LFG.

### 3.2 Dative is thematically delimited

Cognitive linguists take the neo-Jakobsonian perspective to case. As for dative, they look for the dative meaning to account for variety of thematic relationships dative expresses. I already pointed out in 2.1 that dative *per se* is not responsible for the dative meaning. This is a serious challenge for those who believe that dative is thematically delimited.

Another problem for cognitive linguists is that their theory is not constrained enough to falsify against crucial experiments (cf. Carney & Scheer 1980, Chs. 11 & 12). For instance, Van Hoescke (1996) analyzes the Latin Dative as a homogeneous case despite its seemingly diverse uses, which indicates the *pole of orientation*; i.e. “dative indicates that the predication, or some of its constitutive elements, are directed to the noun in the dative (Van Hoescke’s p. 18)” as shown in (7).

- (7) Puer            adnatat                            delphino  
 child-NOM approach.by.swimming-3Sg dolphin-DAT  
 ‘The child swam to the dolphin’  
 (PLINIUS, Epistulae, 9, 33; Van Hoescke’s p. 10)

Metaphorical extension of the *dativus* of approach is found in such broad concepts as resemblance, convergence, divergence, equivalence, comparison, etc. (8) illustrates comparison and resemblance as metaphorical extension.

- (8) a. Mortem    servituti    antepo                    (Comparison)  
 death-ACC slavery-DAT prefer-1Sg  
 ‘I prefer death to slavery’  
 (CICERO, Ad familiares Epistulae, 10, 27, 1; Van Hoescke, p. 11)
- b. Canis    none est    similis    lupo?                    (Resemblance)  
 dog-NOM not be-3Sg similar-NOM wolf-DAT  
 ‘Isn’t the dog similar to the wolf?’  
 (CICERO, De Natura Deorum, 1, 97; Ibid.)

Van Hoescke’s study is descriptively adequate, but does not provide much insight into dative *per se*. In particular, his *pole of orientation* and its metaphorical connotations are so arbitrary, that it can explain *anything and everything*, which makes the theory not falsifiable. He may provide justification for *any* use of dative as a metaphorical extension of the pole of orientation. But he cannot explain why dative is not used in sentences like *\*My baby-DAT is born* or *\*The model train-DAT is made* as a metaphorical extension of the pole of orientation, since these dative NPs denote the final state of the event/activity, and hence point to the pole of orientation.

### 3.3 Dative is structurally determined

Role and Reference Grammar (=RRG, Van Valin & LaPolla 1997) is a representative theory of semantic case, where dative is structurally determined with reference to the logical structure and macroroles. RRG is a monostratal theory, where the semantic representation is directly linked to its corresponding syntactic representation. The semantic representation of RRG is based on Dowty's (1979) lexical decomposition, which is based on Vendler's (1967) verb categorization into four Aktionsart types.

(9) <b>Verb Classes</b>	<b>Logical Structure</b>
STATE	<b>predicate'</b> (x) or (x, y)
ACTIVITY	<b>do'</b> (x, [ <b>predicate'</b> (x) or (x,y)])
ACHIEVEMENT	INGR <b>predicate'</b> (x) or (x, y)
ACCOMPLISHMENT	BECOME <b>predicate'</b> (x) or (x, y)

(Van Valin & LaPolla 1997, 102)

From (9), two macroroles are defined with reference to the Actor-Undergoer hierarchy in (10).

(10) Actor-Undergoer Hierarchy				
Actor				Undergoer
-----<----->-----				
Arg. of	1st arg. of	1st arg. of	2nd arg. of	Arg. of state
DO	<b>do'</b> (x, ...	<b>pred'</b> (x, y)	<b>pred'</b> (x,y)	<b>pred'</b> (x)
[- -> = increasing markedness of realization of argument as macrorole]				

(Van Valin & LaPolla 1997, 146)

(11) shows the RRG case assignment rules for German, Icelandic, and Russian (Van Valin & LaPolla 1997, 359).

(11) RRG case assignment rules:

- a. Assign nominative case to the highest ranking macrorole argument;
- b. Assign accusative case to the other macrorole argument;
- c. Assign dative case to non-macrorole arguments (default).

(11c) treats dative as the default/unmarked/elsewhere choice for non-macroroles. The fundamental insight of the RRG treatment of dative as the default case is adopted and reformulated in conceptual semantic terms in section 4.<sup>7 8</sup>

<sup>7</sup> See J. S. Jun (2003, Ch. 4, esp. 4.3.3.1) to see empirical and theoretical differences between the RRG case theory and my case theory.

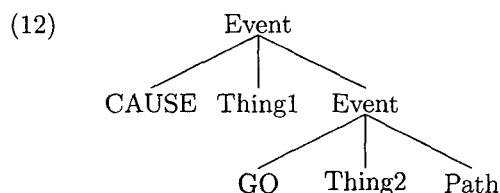
<sup>8</sup> Other studies that view dative as a structurally determined case include Alsina (1996, 1997), Wegener (1991), and Nikanne (1993).



#### 4. Semantic Case-Mapping in Tiers

This section aims to develop a conceptual semantic case theory incorporating the fundamental idea that dative is the default choice for NANP roles. In J. S. Jun (2003), I develop a *semantic* case-mapping theory under the frameworks of conceptual semantics and the case-in-tiers (=C/T) theory (Jackendoff 1983, 1990, 1997, 2002; Yip, Maling & Jackendoff 1987; Maling, Jun & Kim 2001). In this theory, nominative and accusative are mapped onto semantic entities with reference to the configuration (i.e. hierarchical organization) of the conceptual structure.<sup>9 10</sup>

In conceptual semantics, semantic arguments – Thing1 and Thing2 in (12) – can be hierarchically lined up with respect to its embedding in the semantic tree.



(13) is the first formulation of the C/T-theoretic semantic case-mapping principle for nominative and accusative. (14) illustrates how Thing1 and Thing2 in (12) get nominative and accusative respectively.

- (13) a. NOM is assigned before ACC (because NOM > ACC in case hierarchy)  
 b. Only one Thing can get assigned NOM, any remaining Thing gets ACC<sup>11</sup>  
 c. Which Thing gets NOM reflects the hierarchy of semantic entities, where  
 Agent > ... > Theme > ...
- (14) Semantic Tier Hierarchy: Thing1 > Thing2  
   |                  |  
 Case Tier Hierarchy:      NOM > ACC

The idea that dative is the unmarked choice for most peripheral roles is equivalent to saying that any argument that does not get such marked cases

<sup>9</sup> This is just half the picture of the case theory in conceptual semantics. J. S. Jun (2003) proposes that nominative and accusative are redundantly mapped onto syntactic entities as well. The syntactic case-mapping in tiers is not relevant here, and hence omitted.

<sup>10</sup> Other important theories that view nominative and accusative as semantic case are K-S Hong (1991), Alsina (1996, 1997), Dąbrowska (1997), *inter alia*.

<sup>11</sup> Anonymous reviewers asked how I could explain multiple occurrences of nominative/accusative in my theory; e.g. *Inho-ka ton-i manh-ta* 'Inho has much money', and *Inho-ka Mina-lul ton-ul cwu-ess-ta* 'Inho gave Mina money'. The Case-in-Tiers theory has an elegant story for this: *spreading*. See Yip, Maling & Jackendoff (1987), Maling (1993), Maling, Jun & Kim (2001), and J. S. Jun (2003) for details. Maling, Jun & Kim (2001) is particularly relevant for multiple occurrences of nominative/accusative on duration/frequency adverbials.

as nominative/accusative/etc. will end up with dative (Sells, p.c.). (15) is an informal statement of this view.

- (15) Dative is assigned to the *remaining* non-actor/non-patient (=NANP) roles after nominative, accusative, and all other thematic/lexical cases are assigned.

Following the standard linking theory in conceptual semantics (Jackendoff 1990, Ch. 11), the semantic case-mapping in tiers is elaborated in (17) with reference to the thematic hierarchy in (16).

- (16) Thematic hierarchy:  
Order the A-marked arguments in the action tier from left to right, followed by the A-marked arguments in the main conceptual structure clause of the thematic tier, from least embedded to most deeply embedded. (Jackendoff 1990, 258)
- (17) Semantic case-mapping in tiers:
- A. Lexical case, whether thematic or truly quirky, is linked to appropriate semantic entities prior to structural case-mapping in tiers.
  - B. Structural case-mapping:
    - a. Order the A-marked constituents in the verb's LCS according to the thematic hierarchy in (16), followed by any optional arguments/obliques. (i.e. *Action tier* > *Thematic tier*; *less deeply embedded* > *more deeply embedded*; *argument* > *oblique*)
    - b. NOM is assigned to the leftmost (or highest) A-marked constituent.
    - c. ACC is assigned to the second highest A-marked constituent.
    - d. DAT is assigned by default to any remaining constituents, whether A-marked or not, that do not get either NOM/ACC or lexical case.<sup>12</sup>

Let us see how (17) explains the double object construction in Old English. In Old English, as in Modern English, the goal argument is expressed either as a dative-marked IO or as an oblique argument of the preposition *tō* 'to'.

<sup>12</sup> An anonymous reviewer asked how we could ever get the dative object in German *Sie hilft ihm* 'She helps him'. One possible candidate for such dative object is the lexical/quirky case. The Case-in-Tiers theory has no problem with lexical case even in the first conception of the theory (Yip, Maling & Jackendoff 1987). As far as I can tell about contemporary linguistic theories, no one has proposed a completely natural account for lexical/quirky case despite unceasing efforts to reduce the phenomena to principled explanation (cf. Van Valin 1991). In fact, conceptual semantics is a little bit better than most other theories: Maling (2001) motivates the dative object for German verbs like *helfen* 'to help', which is adopted by J. S. Jun (2003, Ch. 4). Also Jackendoff (1990, Ch. 7) offers interesting discussion of the verbs that take beneficiary as arguments: beneficiary is the second argument of AFF<sup>+</sup> in the action tier. See J. S. Jun (2003, esp. 4.5.2) for detailed discussion of the beneficiary and the dative case with German and Old English data.

- (18) a. þā sealde se cyning him sweord (Old English)  
 then gave the king-NOM him(DAT) sword-ACC  
 ‘Then the king gave him a sword’  
 b. þā sealde se cyning tō him sweord  
 to him(DAT)

(19) is the conceptual structure representation of (18).

- (19) [CAUSE ([KING]<sub>A</sub>, [GO ([SWORD]<sub>A</sub>, [TO ([HE]<sub>(A)</sub>)])])]  
 [AFF ([KING], [SWORD])]

The semantic entities of (19) are hierarchically lined up in (20a).

- (20) a. [KING]<sub>A</sub> > [SWORD]<sub>A</sub> > [HE]<sub>(A)</sub>  
           |                  |                  |  
 b. NOM > ACC > DAT

According to (17B-b&c), nominative and accusative are hierarchically mapped onto [KING]<sub>A</sub> and [SWORD]<sub>A</sub> respectively. Finally, [HE]<sub>(A)</sub> is A-marked optionally; i.e. [HE] is realized either as an argument or as an oblique. The optional A-marking affects the presence or absence of the preposition *tō* ‘to’.<sup>13</sup> Whether [HE] is A-marked or not, it is the remaining NANP role that does not get other marked cases. Hence, by (17B-d), [HE] always gets dative.

The semantic case-mapping principles in (17) also explain how such adverbials as goal, time, and location are all marked dative in (21) repeated from (6).

- (21) senmul-i emeni-eykey yeltwu si-ey cip-ey  
 gift-NOM mother-DAT 12 O’Clock-DAT house-DAT  
 DHL-lo tochak-hay-ss-ta  
 DHL-INST(‘with’) arrival-DO-Pst-Dec  
 ‘(Lit.) The gift arrived at my house from/to my mother at 12 O’Clock  
 by DHL’

In (21), nominative is assigned by (17B-b); instrumental is assigned by (17A). The remaining NANP roles all receive dative by default.

## 5. Empirical Consequences

Two empirical consequences provide independent support for the C/T-theoretic semantic case-mapping principles in (17): (i) spatial expressions in Korean and Tzeltal and (ii) the passive.

<sup>13</sup> An anonymous reviewer points out that the optional A-marking strategy invokes an assumption that spell-out of functions as adpositions is possible only if the argument of that function is not A-marked. This is a correct observation, and in fact a standard assumption in conceptual semantics. Contrary to the reviewer’s worry, this assumption is not *ad hoc*. It naturally follows from the standard linking theory in Jackendoff (1990). See also the o-marking convention in Jackendoff (1993).

### 5.1 Spatial expressions in Korean and Tzeltal

In Korean, sentences like (22) are multiply ambiguous; i.e. *sangca-ey* may mean any of ‘in/on/under/etc. the box’.

- (22) pelley-ka sangca-ey iss-ta  
 worm-NOM box-DAT be-Dec  
 ‘(Lit.) A worm is in/on/under/etc. the box’

Disambiguation is possible through being more specific about the *Where-ness* of the ground object.

- (23) a. pelley-ka sangca-an-ey iss-ta  
   inside-DAT                       ‘in the box’  
       b. pelley-ka sangca-wi-ey iss-ta  
   onside-DAT                       ‘on the box’  
       c. pelley-ka sangca-mith-ey iss-ta  
   underside-DAT                     ‘under the box’

One may attempt to analyze *-aney*, *-wiyey*, and *-mithey* in (23) as postpositions. This analysis is not right, though. First, *an*, *wi*, and *mith* are nouns, since they can occur as subjects/objects of a sentence.

- (24) a. an/wi/mith-i/ka                       kkaykkuth-ha-ta  
   inside/onside/underside-NOM cleanliness-DO-Dec  
   ‘The inside/onside/underside is clean’  
       b. an/wi/mith-(l)ul                   ttak-ala  
   inside/onside/underside-ACC clean-Imp  
   ‘Clean the inside/onside/underside’

Secondly, the *relational\_nominal-DAT* complex is quite productive in Korean, as shown in (25).

- (25) sangca yeph/kyeth/patak/sok/pakk/twi/aph/ka/kkuth/say-ey  
       box side/side/bottom/inside/outside/backside/front/edge/point/  
   interval-DAT

A possible conceptual structure for (23) and (25) underspecifies the place function, and elaborates the argument of the place function to incorporate the *Where-ness* of the ground object (cf. Landau & Jackendoff’s 1993 *What* system and *Where* system). (26) shows such conceptual structure for (23). (27) is the generalized conceptual structure for spatial expressions with the underspecified place function.

- (26) a. [BE ([WORM], [Place F<sub>Place</sub> ([Thing INSIDE-BOX]])])]  
       b. [BE ([WORM], [Place F<sub>Place</sub> ([Thing ONSIDE-BOX]])])]

c. [BE ([WORM], [Place F<sub>Place</sub> ([Thing UNDERSIDE-BOX]])])]

(27) [ . . . , [Place F<sub>Place</sub> ([Thing *WhereSide-of-What*]])]

Now, the C/T-theoretic semantic case-mapping principles in (17) guarantee that the ground objects in (26) should get dative; i.e. they are NANP roles, and get dative by default.

Spatial expressions in Tzeltal, a Mayan language, work exactly the same way as Korean. Brown's (1994) pioneering study reports that there is only one omnifunctional preposition *ta* in Tzeltal (cf. Levinson 1990). It introduces time, manner, instrumental, purpose, etc. Most of all, it introduces all locative expressions. According to Brown, "*ta* is semantically general over notions like AT, IN, ON, TO, FROM, OVER, BELOW, etc. (p. 748)". The spatial language in Tzeltal has the general structure of (28). (29) shows representative data for (28a), and (30) for (28b).

(28) a. TA + Body-Part + Object

b. TA + Relational-Nominal + Object

(29) a. *ta x-chikin mexa*  
 TA 3E-ear table  
 'at the ear/corner of the table'

b. *ta y-it limete*  
 TA 3E-butt bottle  
 'at the butt of the bottle'

(30) a. *ta y-util koral*  
 TA 3E-inside corral  
 'inside the corral'

b. *ta y-olil mexa*  
 TA 3E-middle table  
 'at the middle of the table'

Assuming that the Tzeltal locative expressions all share the generalized conceptual structure in (27), the omnifunctional TA is not surprising at all. As Brown assumes, TA may be a preposition; i.e. TA may be an overt lexicalization of the underspecified place function F<sub>place</sub>. On the other hand, TA may be a prefix/particle signalling a default peripheral case like dative. Whatever the choice may be, Tzeltal locative expressions easily fall into the purview of conceptual semantics.

Finally, the underspecification of a conceptual function explains how we get the default dative on a number of peripheral roles in Korean, as illustrated in (5). (31) shows possible conceptual structures for some of the data in (5). In (5) and (31), the ground objects get dative by default, since they are all NANP roles.

(31) a. Goal / Recipient: [Path F<sub>Path</sub> ([Thing ])] (cf. Eng *to*)

- b. Location: [Place F<sub>Place</sub> ([Thing ])] (cf. Eng *at/in*)
- c. Point in time / Age: [Place-1D F<sub>Place-1D</sub> ([Thing ])]
- d. Proportion: [Proportion F<sub>Proportion</sub> ([Thing ])]  
(cf. Eng *per in \$10.00 per person*)
- e. Reference: [Reference F<sub>Reference</sub> ([Thing ])]  
(cf. Eng compound prep *with respect to*)
- f. Source / Cause: [Path F<sub>Path</sub> ([Thing ])] (cf. Eng *from*)

## 5.2 Passive

In many languages, the agent in the passive tends to be marked dative or any other neutral/default case (e.g. Latin ablative; Malayalam instrument; Gugu-Yalanji locative). In Korean, the agent in passive is marked dative.

- (32) a. *kay-ka Inho-lul mul-ess-ta*  
dog-NOM I-ACC bite-Pst-Dec  
'A dog bit Inho'
- b. *Inho-ka kay-eykey mul-i-ess-ta*  
I-NOM dog-DAT bite-Pass-Pst-Dec  
'Inho was bitten by a dog'

In conceptual semantics, passivization is taken as an operation (or a lexical redundancy rule) that deletes the A-marking from the semantic entity corresponding to the active subject (Jackendoff 1990, 179).

- (33) Passivization:  
Delete the A-marking from the highest ranking thematic role of an active predicate according to the thematic hierarchy in (16).

(34) is the conceptual structure for (32a), and (35) is the conceptual structure for (32b) after passivization is applied; passivization strips the A-marking off [DOG], and removes it from the action tier, since it is the highest ranking argument in the sense of (16).

- (34) [DO<sub>bite</sub> ([DOG]<sub>A</sub>, [INHO]<sub>A</sub>)]  
[AFF ([DOG], [INHO])]

(35) [DO<sub>bite</sub> ([DOG], [INHO]<sub>A</sub>)]  
[AFF ( , [INHO])]

Since [DOG] loses its index, i.e. A-marking, it is no longer visible for nominative-marking. Hence, nominative is assigned to the highest ranking argument [INHO], and [DOG] gets dative by default.<sup>14</sup>

<sup>14</sup> Chungmin Lee (p.c.) rightly points out that since [DOG] is an actor, i.e. *not* an NANP role, in (32b) *Inho was bitten by a dog*, it does not make sense that [DOG] ends up with the default

## 6. Conclusion

Dative is not an easy question. It seems to have its own semantics, but dative *per se* is not responsible for the dative meaning (cf. 2.1). It occurs with too diverse thematic roles to make any meaningful generalizations: it is recalcitrant. Nevertheless, the distribution of dative is predictable from the distribution of other cases (cf. 2.2). To solve these puzzles, I have taken the position that dative is the unmarked/default/elsewhere choice for most NANP roles.<sup>15</sup> I have elaborated the idea of the default dative under the framework of conceptual semantics. Some empirical consequences show that it is promising to study dative as semantic structural case (cf. sections 4 & 5).

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dative. Notice, however, that theta role labels are not semantic primitives in conceptual semantics; rather, they are derived notions defined over certain semantic configurations in the conceptual structure (cf. Jackendoff 1990). That is, once [DOG] loses its A-marking, it cannot be labeled actor in conceptual semantics, since actor is by definition the first argument of AFF in the action tier, and only A-marked entities can occur in the action tier.

<sup>15</sup> The fundamental idea of the default dative first appears in Silverstein (1976) (Van Valin, p.c.).

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