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Variation in Double Object Formation with Dative Verbs: English vs. Korean

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ABSTRACT

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There has been a multitude of analyses for double object (DO) formation with English dative verbs, which is known to be very productive though constrained by several factors. By contrast, DO formation in Korean is confined to only some of the dative verbs in this language. Honing in on the grammatical aspects of variation in DO formation between English and Korean, this paper investigates exactly where the variation at issue stems from. Assuming that dative verbs like *give* are lexico-semantically decomposed into the two abstract predicates such as CAUSE and HAVE, we propose that there are two types of CAUSE[strong] and CAUSE[weak]: the former in English encodes strong causation, while the latter in Korean encodes weak causation. Crucially, the two types of CAUSE differ in their [S]emantic/[C]ategorial-selection. CAUSE[strong] can select as its complement either the projection headed by the predicate HAVE or the same projection hosting a modal operator. By contrast, CAUSE[weak] can only select the projection headed by the predicate HAVE. Thus, this paper contributes a better understanding of what (lexico-)syntactic property is at work in materializing the cross-linguistic variation in double object formation with dative verbs.

1. Introduction

This paper investigates the cross-linguistic variation in double object (DO) formation with dative verbs focusing on the contrast between English and Korean in this regard. English dative verbs like *give* that assumedly take a theme and a recipient/goal as their internal arguments select the apparently double object (subcategorization) frame as in (1a), as well as the DP + PP (in short, PP) frame as in (1b):

(1) a. John gave Bill a ball.
    b. John gave a ball to Bill.

Korean dative verbs like *cwu-* 'give' also apparently allow two identical word orders of recipient/goal and theme arguments, as follows:

(2) a. Mini-ka   Cheli-eykey kong-ul   cwu-ess-ta.
       Mini-NOM   Cheli-DAT   ball-ACC give-PST-DCL
    b. Mini-ka   Cheli-lul   kong-ul   cwu-ess-ta.
       Mini-NOM   Cheli-ACC   ball-ACC give-PST-DCL
       'Mini gave a ball to Cheli.'

As will be shown below, the two recipient and theme arguments in both (2a) and (2b) have not experienced permutation like scrambling, thus (2a) and (2b) conforming to canonical word order. In characterizing the structural aspects of (2a) and (2b), what matters is the categorial status of the particle ⁻*eykey* 'to/dative case particle' in (2a). If this particle is a postposition, the verb *cwu-* takes the PP frame. On the other hand, if it is a dative case marker, it takes the DO frame, like that in (2b). We assume the former analysis in this paper, labeling (2a) the PP frame and (2b) the DO frame.

We will presently note that English productively allows the so-called dative alternation, taking the DO frame as well as the PP frame with dative verbs. By contrast, Korean is very restrictive in the selection of the DO frame with dative verbs. Based on the extensive study of the dative alternation with English dative verbs, we investigate the locus of variation between English and Korean in DO formation. Section 2 hones in on the underlying structures of the DO and the PP frames in the two languages at issue. Section 3 reviews the APPLP hypothesis for the DO construction and adopts it to articulate the syntactic manifestation of the DO frame. Section 4 and 5 zoom in on the constructional aspects of the DO construction in English and Korean, respectively, especially paying attention to exactly what determines structural DO formation. Section 6 examines scope interaction between theme and recipient arguments, which serves crucially as compelling evidence for the structural postulation of DO and PP constructions. Section 7 wraps up with a conclusion.

2. Underlying Structures of Dative Verbs

In the early literature, English dative verbs have been decomposed into two distinct but related event types in (3) (cf. Harley 2003, Pinker 1989).

(3) a. Caused possession: [[X ACT] CAUSE [Y HAVE Z]]
    b. Caused motion: [[X ACT] CAUSE [Z GO TO Y]]

These event structures represent two types of causative events, one involving possession and the other motion to/arriving at a goal, in an abstract way along the lines proposed in the Localist Hypothesis (Gruber 1965, Jackendoff 1972, 1983).

The two event structures are assumed to be realized structurally into the underlying forms of dative verbs as in (4), drawing on the well-cited proposal by Harley (2003). In each case a causal head takes a causer DP and a PP complement. Within the latter, between theme and recipient/goal arguments either a HAVE-denoting relation holds in the DO frame or an arrival/co-location-denoting state holds in the PP frame. In both cases the causal v is modified by the root that specifies the manner of giving rise to the result.

(4) a. [$_{vP}$ John [$_{v'}$ [$_v$ v_{cause} $\sqrt{}$give] [$_{PP}$ Mary [$_{P'}$ P$_{HAVE}$ a ball]]]]
    b. [$_{vP}$ John [$_{v'}$ [$_v$ v_{cause} $\sqrt{}$give] [$_{PP}$ the ball [$_{P'}$ P$_{LOC}$ to Mary]]]]

The structural representations of (4a) and (4b) for the dative alternation for verbs like *give* may offer a right handle in accounting for the interface from the lexicon to the syntax, but the small clause analysis for the complement of a dative verb in English encounters an insurmountable problem in representing Korean dative verbs, where the recipient/goal argument is always generated in higher position than the theme argument. Specifically, the small clause analysis at hand may be a valid one in Korean as the recipient in (5b) serves as a subject of the small clause that depicts a HAVE-denoting relation, but it cannot be because in (5a) not the theme but the recipient keeps serving as a subject of the small clause that depicts an arrival/co-location-denoting state .

(5) a. [$_{vP}$ Mini [$_{v'}$ [$_{PP}$ Cheli-eykey [$_{P'}$ kong-ul P$_{LOC}$]] [$_v$ $\sqrt{}$cwu- V$_{cause}$]]]
    b. [$_{vP}$ Mini [$_{v'}$ [$_{PP}$ Cheli-lul [$_{P'}$ kong-ul P$_{HAVE}$]] [$_v$ $\sqrt{}$cwu- V$_{cause}$]]]

In fact, Bruening (2010) argues convincingly against the small clause analysis for the complement of English dative verbs. Bruening instead proposes following Marantz (1993) that as in (6a) the DO frame has the recipient DP provided by an APPL(icative) head that intervenes between the lexical V, which selects the internal theme argument, and Voice, which provides the external argument. By contrast, in the PP frame as in (6b), both the DP and the PP are internal arguments of the lexical verb, while the

external argument is provided by Voice. Acknowledging that constituency tests put the recipient/goal PP higher than the theme DP (see Janke and Neeleman 2012), Bruening (2020) more recently adopts for the PP frame the structure in (6b') rather than that in (6b), where the recipient/goal PP is generated in higher position than the theme DP.

(6) a. [$_{VOICEP}$ John VOICE [$_{APPLP}$ Mary [$_{APPL'}$ APPL [$_{VP}$ [$_V$ give] a ball]]]]
    b. [$_{VOICEP}$ John VOICE [$_{VP}$ a ball [$_{V'}$ [$_V$ give] [$_{PP}$ to Mary]]]]
    b'. [$_{VOICEP}$ John VOICE [$_{VP}$ [$_{V'}$ [$_V$ give] a ball] [$_{PP}$ to Mary]]]]

Kim (2015) is in keeping with Bruening (2010, 2020) in her analysis for Korean dative verbs like *cwu-*, as follows:

(7) a. [$_{VOICEP}$ Mini [$_{VP}$ [$_{PP}$ Cheli-eykey] [$_{V'}$ kong-ul [$_v$ cwu-]]] VOICE   ]
    b. [$_{VOICEP}$ Mini [$_{APPLP}$ Cheli-lul [$_{APPL'}$ APPL [$_{VP}$ kong-ul [$_v$ cwu-]]] VOICE]

As in English, the PP and the Accusative-marked object NP in the PP frame of (7a) are the internal arguments of the ditransitive verb within the VP. By contrast, in the DO frame of (7b) the first Accusative-marked object is provided by an applicative head, while the second Accusative-marked object is the argument of the ditransitive root verb.

3. APPL and the More Articulated Structure of the DO Frame

Now, it is instructive to note that Bruening (2010) semantically formalizes the functional head APPL as in the DO frame of (6a) and (7b) as in (8).

(8) Semantics of an applicative head (henceforth, Appl)
    ⟦APPL⟧ = λx. λy. λe. HAVE(e) & THEME(e,x) & POSSESSOR(e,y)

This functional head is responsible for the meaning of possession, the meaning that is present in the DO frame: it takes the possessor (realized as the indirect object (IO) in English; as the Accusative Case marked object in Korean) and the possessee (realized as the direct object) and denotes a relation between the recipient and an event described by the verb phrase (Bruening 2010 for details).
We turn back to Bruening's (2010) analysis of the DO frame in (6a), repeated as (9):

(9) [$_{VOICEP}$ John VOICE [$_{APPLP}$ Mary [$_{APPL'}$ APPL [$_{VP}$ Vgive a ball]]]]

It is not clear how in (9) the functional head APPL denoting possession is composed into the right

semantic interpretation: (7) just represents the possession relation, not representing causation that gives rise to it. To resolve this problem, Bruening (2010) goes on to add one more layer headed by the light verb v[1] above the APPLP, with the verbal root (underlying *give*) occupying the V head, as in (10):

(10) [$_{\text{VOICEP}}$ John VOICE [$_{\text{vP}}$ v [$_{\text{APPLP}}$ Mary [$_{\text{APPL'}}$ APPL [$_{\text{VP}}$ [$_{\text{V}}$ √g-]   a ball]]]]]

Bruening suggests that the verbal root V head-raises to the APPL head and derives a HAVE predicate in the semantics. But now a question is how the possessive result denoted by the derived HAVE predicate comes about. Buying the earlier view on double object constructions that the possessive result denoted by the derived HAVE predicate is brought about by the matrix causative verb (cf. Harley 2002, Pinker 1989), we add to the matrix verbal domain one more abstract head CAUSE that selects APPLP as its complement, as in (10)':

(10)' [$_{\text{VOICEP}}$ John VOICE [$_{\text{vP}}$ v [$_{\text{vP}}$ **CAUSE** [$_{\text{APPLP}}$ Mary [$_{\text{APPL'}}$ APPL [$_{\text{VP}}$ [$_{\text{V}}$ √g-]   a ball]]]]]]

4. What Determines the DO Frame in English

Ditransitive verbs in (11) are drawn from the sub-classes proposed by Gropen et al. (1989: 243-244) and Pinker (1989: 210-219) (building on Green 1974):

(11) a. Verbs that inherently signify acts of giving: *give, pass, hand, sell, pay, trade, lend, loan, serve, feed*

   b. Verbs of sending: *send, mail, ship*

   c. Verbs of instantaneous causation of ballistic motion (Verbs of throwing): *throw, toss, flip, slap, kick, poke, fling, shoot, blast*

   d. Verbs of continuous causation of accompanied motion in a deictically specified direction: *bring, take*

   e. Verbs of future having: *offer, promise, bequeath, leave, refer, forward, allocate, guarantee, allot, assign, allow, advance, award, reserve, grant*

   f. Verbs of continuous causation of accompanied motion in some manner: *carry, pull, push, schlep, lift, lower, haul*

Starting with the DO frame, the prediction of the structure in (10) is that all the IOs in this frame

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[1] In the earlier literature, the little v was taken to have some semantic motivations ('eventuality'). Kratzer (1996) imparts the 'event agentive' interpretation to v, thus v being identified with Voice. Harley (1995) assigns 'causation' to v in that the event is interpreted as a causative event, while Borer (1998) suggests some aspectual content ('process') on v, giving the event a durative interpretation. Thus, the little v can be assumed to bear a bundle of eventuality-denoting features.

must be possessors. But in reality, only 'giving' verbs in (11a) entail actual possession with the DO frame, as in (12a). For all the verbs in (11b-e) actual possession is not entailed (i.e. is thus cancellable) as in (12b-c) (and the verbs in (11f) do not usually take the DO frame, which we will return to shortly). For them, however, prospective possession is entailed even if actual possession is cancelable (Gropen et al. 1989: 207, Beavers 2011: 8-12), as evidenced by the availability of the 'London Office' effect[2] as in (12b-c).

(12) a. #John gave/loaned Mary the salt, but she never got it.

    b. John sent/threw Mary/#London the ball, but it flew off course before she got it.

    c. John brought/promised Mary/#London the ball, but she never ended up receiving it.

By contrast, for at least the verbs in (11b-d & f) prospective possession is not required in the PP frame (e.g. no 'London Office' effect in *John sent/threw/brought/hauled a ball to London*), meaning that prospective possession in (12b-c) must be entailed by the DO frame itself. In sum, the actual meaning of the DO frame in (10) is not caused actual possession but rather caused prospective possession.

Turning to the PP frame, (6b/b') predicts that arrival (i.e. the entity referred to by the theme argument arrives at the goal denoted by the PP) should be entailed. It is entailed, as with accompanied motion verbs in (11d & 11f) as in (13a), but it is not, as with 'sending' and 'throwing' verbs in (11b & 11c) as in (13b).

(13) a. #John carried/brought the treaty to the security council, but it did not arrive.

    b. Kim threw/tossed/sent the ball to Sandy, but the wind blew it into the bushes/it did not arrive.

However, if arrival is not possible, the PP frame with 'throw' or 'toss' verbs is not legitimate:

(14) Context: [Kim and Sandy are separated by an unbreakable glass wall Kim is aware of.]

        #Kim threw/tossed the ball to Sandy.

Crucially, the PP frame with 'giving' in (11a) and 'future having' verbs in (11e) lack motion meaning altogether, and instead require simply caused (prospective) possession, evidenced by the 'London office' effect arising despite the fact that these are PP frames:

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  [2] As noted originally by Oehrle (1976), the interpretive coercion comes about in English when an animacy-wise ambiguous DP occupies the IO position of the DO construction. In the DO frame of (i), London needs to refer metonymically to members of a company or organization located in the city -- the 'London office' effect. In the PP frame of (ii), by contrast, London can refer either to the city or an London office.

  (i) John mailed London a letter.   ('London office' reading only)
  (ii) John mailed a letter to London. (either regular or office reading OK)

(15) John gave/bequeathed/credited the money to Mary/#London.

In some cases (e.g. *bequeath*) a verb root can make the PP frame mean the constructional meaning of the DO frame, while for other cases (e.g. *throw*) the PP and DO frames mean different things; that is, there is root sensitivity in the meanings of the frames.

As noted above, dative verbs in (11f) do not usually allow the DO frame[3], as follows:

(16) a. $^{??}$John carried/hauled/dragged/pushed Sandy the ball.
　　 b. John carried/hauled/dragged/pushed the ball to Sandy.

Beaver (2011) accounts for the oddness of (16a), based on the proposals by Krifka (1999, 2004) and Bresnan and Nikitina (2009). Beaver first points out that among a range of meanings for HAVE, its two meanings are relevant here: alienable possession (e.g. *John has a car*) and control (e.g. *John has the car for the weekend*). Let's say that the former is have$_P$ and the latter is have$_C$. The canonical case of a 'giving' event is the granting of temporary possession, so that a person who has$_P$ something lets someone else simultaneously have$_C$ it, as in *I gave Mary my car to clean*. However, the situation with (11f) Beavers characterizes as 'accompanied motion by continuous imparting of force' is the opposite of such a canonical situation. In this case, the person who has$_C$ the theme at the final point in the event by virtue of applying force is letting someone else simultaneously have$_P$ it. In other words, in light of the concept of clause-combining (Haiman and Thompson (1988)), the idiosyncrasy of the event schema with the verbs in (11f) tends to preclude the successful clause-combing of the matrix and the embedded events. In short, there is a constraint in English that disprefers the DO frame encoding actual or prospective caused possession from depicting a situation where the causer has$_C$ the theme at the final point in the event.

5. What Determines the DO Frame in Korean?

Korean 'give'-type verbs entailing resultant possession as in (17) permit the DO frame (as well as the PP frame), but 'send'-/'throw-' type verbs as in (18) allow the PP frame, but not the DO frame (e.g., Cho 1996, Hong 1991, Jung and Miyagawa 2004, Kim 1990, Kim 2015, Lee 2018, Lee 2020, Park and Whitman 2003).

(17) a. Mina-ka　　 Swuni-eykey/-lul　 sopho-lul　　 cwu-ess-ta.
　　　 Mina-NOM Sooni-DAT/-ACC　 package-ACC give-PST-DECL
　　　 'Mina gave Sooni a package.'

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[3] Bresnan and Nikitana (2009) note, giving naturally attested examples from searches of the World Wide Web, that the ditransitive verbs in (11f) do occur in the DO frame, albeit at a lower frequency that other ditransitive verbs.

b. Nay-ka   Yenga-eykey/-lul   pwule-lul   kaluchi-ess-ta.

   I-NOM   Younga-DAT/-ACC French-ACC   teach-PST-DECL

   'I taught Younga French.'

(18) a. Mina-ka   Swuni-eykey/*-lul sopho-lul   ponay-ss-ta.

   Mina-NOM   Sooni-DAT/-ACC   package-ACC send-PST-DECL

   'Mina sent a package to Sooni.'

b. Mina-ka   Swuni-eykey/*-lul   kong-ul   tenci-ess-ta.

   Mina-NOM   Sooni-DAT/-ACC   ball-ACC   throw-PST-DECL

   'Mina threw a ball to Sooni.'

<div align="right">from Lee (2020)</div>

Lee (2020) further notes that a subset of 'give'-type of verbs that express transfer of possession such as *phal-* 'sell', *kennay-* 'hand', *mathki-* 'entrust' and *namki-* 'leave, bequeath' do not allow the DO frame, as in (19).

(19) a. Mina-ka   Swuni-eykey/*-lul cha-lul   phal-ass-ta.

   Mina-NOM Sooni-DAT/-ACC car-ACC sell-PST-DECL

   'Mina sold a car to Sooni.'

b. Cina-ka   Mary-eykey/*-ul pyenci-lul   kennay-ss-ta.

   Jina-NOM Mary-DAT/-ACC letter-ACC hand-PST-DECL

   'Jina handed a letter to Mary.'

<div align="right">from Lee (2020)</div>

Lee (2020) thus claims that among sub-classes of dative verbs as in (20), only what Lee calls 'pure caused possession' verbs allow the DO frame:

(20) Semantic classes of Korean dative verbs:

Caused possession verbs	Pure caused possession verbs	*cwu-* 'give', *kaluchi-* 'teach'; and **future having verbs** (*ceykongha-* 'offer', *cikupha-* 'pay', *kwenha-* 'offer', *mathki-* 'entrust', *pwuyeha-* 'grant', *sunginha-* 'grant', *yaksokha-* 'promise', ⋯)
	Transfer of possession verbs	*kennay-* 'hand', *nemki-* 'pass', *phal-* 'sell', *yucungha-* 'bequeath', *swuyeha-* 'award', ⋯
Caused motion verbs		**'send'-type verbs**: *centalha-* 'forward', *pannapha-* 'return', *paysongha-* 'ship', *paytalha-* 'deliver', *ponay-* 'send', *pwuchi-* 'mail',⋯; **'throw'-type verbs**: *cha-* 'kick', *chi-* 'hit', *ponay-* 'pass', *tenci-* 'throw', ⋯

Lee (2018) investigates the very issue of why unlike their English counterparts, Korean dative verbs are restricted in taking the DO frame. Lee first reports Lee and Jang's (2018) survey of acceptability ratings for the two frames of dative verbs, as in (21). Lee and Jang's (2018) survey are based on not

three but two types of dative verbs such as 'caused possession' and caused motion verbs:

(21)   Average ratings of recipients with DAT and ACC Case marker

	Caused possession verbs	Caused motion verbs	Mean
DAT	4.25 (SD: 0.39)	4.21 (SD: 0.43)	4.23
ACC	2.65 (SD: 0.83)	1.61 (SD: 0.31)	2.13

As (21) shows, the PP frame for the two verb type conditions is more acceptable (with a mean rating of 4.23 on a 5-point scale) than the DO frame (with that of 2.13). Second, the DO frame containing 'caused possession' dative verbs is marginally acceptable with a mean rating of 2.65, but the same frame containing 'caused motion' dative verbs is not acceptable with a mean rating of 1.61. Thus, the former displays a significant degree of participant variability (SD = 0.83) compared to the latter (SD = 0.31).

Lee (2018) offers an Optimality-Theoretic account for speaker variation as well as grammatical variation in the either postposition or Accusative Case realization of recipient arguments for Korean dative verbs. Lee espouses the relative ranking of and the distance between the two conflicting families of markedness constraints in Stochastic Optimality Theory (cf. Boersma and Hayes 2001): (i) a HARMONY constraint family dictating that a non-core grammatical function (neither a subject nor an object in a basic transitive clause) comes with non-core (oblique) marking and (ii) a RECIPIENT/DIRECTCASE(REC/DC) constraint family assigning Accusative Case more readily to a semantically stronger type of recipient, i.e., a recipient argument required to possess a theme. While REC/DC rules that a recipient be marked with Accusative Case, HARMONY mandates that the same recipient be marked with oblique Case. Lee suggests that Korean be a language which grants a priority to HARMONY over REC/DC in constraint ranking and hence the oblique marking of a recipient argument is preferred to its Accusative Case marking. Lee's OT-based analysis apparently works out in explicating the general tendency for speaker variation as well as grammatical variation in the morpho-syntactic argument realization of a recipient with Korean dative verbs, but it seems to be off the mark to impute its realization not to language-intrinsic property, but to constraint interaction.

Lee (2020) more recently provides an alternative account for the limited productivity of the DO frame with Korean dative verbs, attributing it to language-internal property rather than constraint interaction. Lee first proposes, building on Croft et al. (2001) and Levin (2004, 2008), that dative verbs are ranked in terms of the degree of compatibility with a 'caused possession' event schema, forming an implication hierarchy: 'pure caused possession' > 'transfer of possession' > 'caused motion'. Lee suggests three criteria for determining compatibility between verb and constructional meanings: (i) whether or not a verb inherently entails the constructional meaning of the DO frame, say, 'caused possession'; (ii) the number of meaning components that a member of a certain verb class contributes, on top of 'caused possession'; (iii) the property of a verb's contribution, such as elaboration or addition (i.e., state, event, and event & manner). Lee furthermore argues that construction-wise, the DO frame has 'caused possession' as a basic meaning and 'causation of metaphorical possession' (i.e., possession

of information) as an extended meaning, whereas the PP frame has 'caused motion' as a basic meaning and 'causation of general 'have' relations' or 'causation of transfer of possession' as an extended meaning, thus encompassing a more inclusive set of the events than described by the DO frame. Hinging on these ideas, Lee asserts that in order for a verb to appear in a particular construction, it must entail the basic or extended meaning of the constructional frame. For instance, the PP frame has 'caused motion' as a basic meaning, thus being realized as an instantiation of the 'caused motion' construction. On the other hand, 'caused possession' verbs do not entail the basic meaning of the PP frame. These verbs can nonetheless be realized in the PP frame as they can entail one of its extended meanings. According to Lee (2020), the DO construction in Korean crucially imposes a stronger requirement on verb－construction compatibility: It needs to satisfy both the entailment condition and the condition that the verb in the DO frame does not add a state or event to the basic meaning of the DO frame.

Despite its success in explanatory adequacy, Lee's (2020) account first seems to be grounded on the rather controversial empirical generalization on the DO construction with Korean dative verbs. Lee claims that in Korean the DO construction with 'pure caused possession' verbs in (20) is fine, but in reality, it actually is not. The people we consulted claimed that the DO sentences in (22a-f) are unacceptable.

(22) a. Ayphul-i   phihayca-eykey/*ul hapuykum-ul   cikupha-yssta.
        APPLE-NOM   victim-DAT/ACC   settlement-ACC paid
        'Apple has paid the victim a settlement.'

   b. Kunye-nun seyangintul-eykey/*ul   umsik-ul   ceykonghayssta.[4]
        She-TOP   Westerners-DAT/ACC   food-ACC   provided
        'She provided soldiers with food.'

   c. Taythonglyeng-un kwukmintul-eykey/*ul cechwukul   kwenhayssta.
        president-NOM   people-DAT/ACC   saving money recommended
        'The president recommended to save money.'

   d. Ponsa-ka   pak sacang-eykey/*ul maycang wunyeng-ul   mathkyessta.
        headquarters-NOM Park-DAT/ACC   store   operation-ACC entrusted
        'The headquarters entrusted Park with the operation of the store.'

   e. Pepmwupwu-nun yenkwukwan-eykey/*ul swusakwenul   pwuyehayssta.
        J. Dept.   researcher-DAT/ACC   investigation right granted
        'The Justice Department granted the researcher the right to investigate.'

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[4] Lee (2020) claims that the DO variant of the following sentence with *ceykongha-* 'offer' is fine. But our informants rated it as marginally (un)acceptable:

(i) Wuri-ka senswu-tul-eykey/$^{(??/?)}$-ul sisel-ul   ceykongha-yss-ta.
    we-NOM player-PL-DAT/-ACC   facility-ACC offer-PST-DECL
    'We offered players facilities.'

   f. Phap sutha-ka   wuntongsenswu-eykey/*lul pelkum taynap-ul   yaksokhayssta.

     A pop star-NOM athlete-DAT/ACC   fine   proxy-payment promised

     'A pop star has promised athletes a fine.'

Thus, the correct generalization on the DO frame in Korean is that it is highly limited to dative verbs such as *cwu-* 'give' and *kaluchi-* 'teach' in (17a-b).

The second drawback with Lee's (2020) account lies in her attempt to attribute the limited productivity of the DO frame with Korean dative verbs to the compatibility between verb and constructional meanings. But when this line of analysis confronts cross-linguistic variation in the productivity of the DO frame with dative verbs, it is not easy to identify exactly where the variation in question stems from. In fact, Lee (2020) suggests that the limited productivity of the DO frame with Korean dative verbs falls out as a consequence of choosing the cut-off point at the highest end of an implicational hierarchy that the semantic classes of dative verbs form: 'pure caused possession' > 'transfer of possession' > 'caused motion'. We have seen that this suggestion is not empirically supported, nor gives an answer for why Korean differs from English in choosing such a cut-off point.

Departing from Lee (2020), we suggest that the locus of variation between Korean and English in the productivity of the DO frame with dative verbs lies in the nature of the matrix abstract verb CAUSE in this frame. We repeat the English DO frame in (10)', as in (23):

(23) [$_{\text{VOICEP}}$ John VOICE [$_{\text{vP}}$ v [$_{\text{VP}}$ **CAUSE**$_{[S]}$ [$_{\text{APPLP}}$ Mary [$_{\text{APPL'}}$ APPL [$_{\text{VP}}$ [$_{\text{v}}$ √g-] a ball]]]]]]

We take this matrix abstract V **CAUSE**$_{[S]}$ to represent stronger causation on its complement APPLP, and it is distinguished from its Korean counterpart **CAUSE**$_{[W]}$ in (24), which represents weaker causation on its complement.[5]

(24) [$_{\text{VOICEP}}$ Mini VOICE [$_{\text{vP}}$ [$_{\text{VP}}$ [$_{\text{APPLP}}$ Cheli [$_{\text{APPL'}}$ APPL [$_{\text{VP}}$ kong-ul [$_{\text{v}}$ √g-]]] **CAUSE**$_{[W]}$] v]]

The distinction between **CAUSE**$_{[S]}$ in English and **CAUSE**$_{[W]}$ in Korean is intimately related to the corresponding cross-linguistic divergence in light of non-culmination/telicity in 'caused change-of-state' verbs. In English, such predicates like *open* in (25) entail that the result state obtains; cancelation of the state engenders a contradiction:

(25) #John (just) opened the door, but it is not open.

In Korean (Beavers and Lee, 2020), by contrast, the predicate meaning 'break the window' in (25)

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    [5] In a parallel fashion, Jackendoff (1990) suggests that in a particular language like English causative verbs fall into different sub-classes: strong causation (e.g., *cause, make*), weak causation (e.g., *enable, allow*), strong prevention (e.g., *block, prevent*), and weak prevention (e.g., *impede, hinder*).

does not entail that the door actually became broken, evidenced by the fact that a continuation explicitly canceling the result state is non-contradictory.[6]

(26) Ku-ka   changmwun-ul kkay-ss-ta.   haciman   changmwun-i
      he-NOM   window-ACC   break-PST-DCL   but   window-NOM
      kkay-ci-ci   anh-ass-ta.
      break-PASS-COMP   NEG-PST-DCL
      'He broke the window. But it was not broken.'

Acknowledging that there are two types of readings of "non-culmination" with causative verbs: "zero result" and "partial result", Beavers and Lee (2020) argue that the two readings in question come from two factors: a sublexical modality over worlds encoding the agent's intentions for zero result readings that stems from a special active voice inflection in Korean and a scalar semantics for change-of-state verbs that gives rise to partial result readings as a type of degree achievement interpretation. The distinction between entailed resultant state in English and 'no'/partial resultant state in English in regard to 'caused change-of-state' verbs renders a rationale for the differentiation of **CAUSE$_{[S]}$** in English from **CAUSE$_{[W]}$** in Korean. The former requires that the resultant state denoted by its complement obtain, but the latter does not.

Note that unlike **CAUSE$_{[S]}$** in English, **CAUSE$_{[W]}$** in Korean can take APPLP as its complement. [7] Returning to the dative verbs in (22), they are characterized as 'future having' verbs (Lee, 2020) or as 'prospective possession' verbs (Gropen et al. 1989: 207). Following Koenig and Davis (2001), Rappaport-Hovav and Levin (2008) and Beavers (2011), we assume that the prospective property of possession is encoded by a sublexical modality. Beavers (2011: 10) proposes that the possessive relationship is modified by Koenig and Davis's (2001) sublexical modality, requiring that possession be achieved in some possible worlds, not in all. We adopt Beavers' (2010) proposal that 'future having' or 'prospective possession' verbs are lexico-semantically represented using a modal or temporal operator,

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[6] The following languages behave in an analogous fashion to Korean, but in a different way from English: Japanese in Ikegami (1985); Hindi in Singh (1998) and Arunachalam and Kothari (2011); Thai in Koenig and Muansuwan (2000); Salish languages in Bar-el et al. (2005); Chinese in Koenig and Chief (2008); see also Demirdache and Martin (2015) and Koenig et al. (2016) for cross-linguistic summaries.

[7] Independent evidence for the postulation of **CAUSE$_{[W]}$** in Korean comes from the non-obligatoriness of telicity in resultative constructions of this language (Kim et al., 2019). As in (ia-b), in English the atelic adverbial is not compatible with the resultative predicate, but in Korean it is. Based on the difference in telicity between English and Korean resultatives, we argue that what matters here is the causative feature that a matrix verb in English and Korean associates with: **CAUSE$_{[S]}$** in the former and **CAUSE$_{[W]}$** in the latter.

(i) a. John pounded the metal flat *in/*for 5 minutes*.
                   [English transitive = telic]
   b. Inho-ka   *o-pwun-maney/tongan* chelphan-ul   napcakha-key twutulki-ess-ta.
     Inho-NOM five-minute-in/for   iron.plate-CC   flat-Res   pound-PST-DCL
     John pounded the metal flat in/for 5 minutes.'
                  [Korean transitive = telic/atelic] (Son 2008: 103)

which restricts the possible worlds in which possession holds. This has it as a consequence that the matrix V **CAUSE[W]** in Korean cannot semantically/categorially select sublexical modality-encoded 'prospective possession' as its complement. In addition, according to Beavers (2011), 'transfer of possession' verbs encode neither actual loss nor receiving; both are prospective and need not occur. Likewise, the DO frame with verbs expressing 'caused motion' contribute 'prospective having'.

In summary, we argue that what determines the DO frame in Korean is the matrix abstract causative verb CAUSE. Unlike its strong type of CAUSE in English, the weak type of CAUSE in Korean semantically/categorially selects as its complement the APPLP whose head is not modified by a modal or temporal operator, disallowing from occurring in the APPLP complement the Korean verbal roots denoting 'future having', 'transfer of possession', and 'caused motion'.

6. Scope Relation with English and Korean Dative Verbs

Aoun and Li (1989) observe that the PP construction (27a) containing quantifier phrases (QPs) is ambiguous, whereas the DO construction (27b) having QPs is not ambiguous.

(27) a. Mary gave some book to everyone.
     b. Mary gave someone every book.

There have been a multitude of analyses for the scope reading of both the DO frame and the PP frame in English. Following Janke and Neeleman (2012), we argue that the unambiguous reading of the DO frame and the ambiguous readings of the PP frame follow from their underlying structures in (28) and (29) ((28) is repeated from (10)', and (29a-b), from (6b-b')):

(28) [$_{VOICEP}$ John VOICE [$_{vP}$ v [$_{VP}$ **CAUSE** [$_{APPLP}$ Mary [$_{APPL'}$ APPL [$_{VP}$ [$_{v}$ √g-] a ball]]]]]]
(29) a. [$_{VOICEP}$ John VOICE [$_{vP}$ a ball [$_{v'}$ [$_{v}$ give] [$_{PP}$ to Mary]]]]
     b. [$_{VOICEP}$ John VOICE [$_{vP}$ [$_{v'}$ [$_{v}$ give] a ball] [$_{PP}$ to Mary]]]]

In the DO construction, the IO always c-commands the DO in the underlying and the surface structures; the Case Adjacency constraint in English requires both IO and DO to be adjacent to the verb or its trace. This unitary structure correctly predicts the scope-freezing effect of the IO QP taking wide scope over the DO QP. By contrast, as Janke and Neeleman (2012) argue, the PP dative construction can be structurally ambiguous owing to the availability of both rightward-descending VP shell structure as in (29a) and more traditional rightward-ascending VP structure as in (29a). Under the rightward-descending VP shell, the DP QP takes wide scope over the PP QP, while under the rightward-ascending VP structure, the PP QP takes wide scope over the DP QP. In sum, the flexibility in scope in the PP dative construction thus reflects the availability of both descending and ascending structures.

Now turning to Korean, we pointed out in section 2 that in this language, with dative verbs the recipient argument is always base-generated in higher position than the theme argument, regardless of whether the former is Dative particle marked or Accusative Case marked. The crucial evidence for such structural postulation of dative verb constructions comes from scope interpretation of the recipient and theme arguments, as in (30) and (31)(see also Kim (2015) and Lee (2020)):

☐ Canonical word order (unambiguous)
(30) Emma-nun   ai   han myeng-eykey motun kheyikhu-lul cwusyessta.
      Mother-TOP child one CL-DAT   every cake-ACC   gave
(31) Emma-nun ai han myeng-ul motun kheyikhu-lul cwusyessta.
                          -ACC
      'Mother gave one child all the cakes.'

In the case of cannonical word ordered sentences in Korean, the underlying c-command relation determines the scopal interpretation of scope-interacting QPs; this is the so-called scope rigidity effects in this language (Huang, 1982). Thus, the unambiguous reading of the PP dative frame in (30) and the DO frame in (31) renders compelling evidence for the structural make-up of the two frames like those in (7), repeated below as (32):

(32) a. [$_{\text{VOICEP}}$ Mini [$_{\text{VP}}$ [$_{\text{PP}}$ Cheli-eykey] [$_{\text{V'}}$ kong-ul [$_{\text{v}}$ cwu-]]] VOICE   ]
     b. [$_{\text{VOICEP}}$ Mini [$_{\text{APPLP}}$ Cheli-lul [$_{\text{APPL'}}$ APPL [$_{\text{VP}}$ kong-ul [$_{\text{v}}$ cwu-]]] VOICE]

Unlike the canonical word order of dative verb constructions, scrambling in these constructions creates a new scope relation. (33) and (34) where the theme argument existential QP is scrambled over the recipient universal QP can have scope-wise ambiguous interpretations:

☐ Scrambled word order (ambiguous)
(33) Emma-nun   kheyikhu hana-lul   motun ai-eykey t cwusyessta.
      Mother-TOP cake   one-ACC   every child-DAT gave
(34) Emma-nun   kheyikhu hana-lul motun ail-ul t cwusyessta.
                          -ACC
      '(Lit.) Mother gave one cake to every child.'

Unlike (33), (34) becomes slightly degraded in the wake of scrambling one QP over another QP, but this sentence allows ambiguous scope readings like (33).

In summary, scope interpretation for the DO frame as well as the PP frame with dative verbs provides compelling evidence for postulating the structural composition of the recipient and the theme argument with them.

7. Conclusion

Investigating the variation between English and Korean in DO formation with dative verbs. we have proposed that the variation in question is attributed to the S/C-selectional property of the matrix abstract verb CAUSE. English dative verbs are decomposed into the strong type of CAUSE that can select either the APPLP whose head APPL denotes actual possession, or the APPLP that contains a modal operator and thus denotes possible/prospective possession. By contrast, Korean dative verbs are decomposed into the weak type of CAUSE that can only select the APPLP whose head APPL denotes actual possession. Assuming with Harley (1995) that the little v bears a bundle of features such as causation, agentivity, and aspect, our account for the variation at issue in this paper is in keeping with the Chomsky-Borer conjecture that the locus of variation is restricted to functional categories (cf. Borer 1984, Chomsky 1995).

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Examples in: English
Applicable Languages: English
Applicable Level: Tertiary