Case-stacking is impossible in Seoul Korean: Naturalness patterns of accusative goals

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Abstract

This paper examines the environments in which case-alternation and case-stacking on Korean ditransitives are felicitous. While it has argued by some scholars that accusative marking or even dative-accusative ('stacked') marking on the goal argument is grammatical, I suggest experimental data arguing that such constructions are generally impossible in Seoul Korean. However, case-alternation is possible in contexts where the goal argument receives marked prosody and is contextually in contrastive focus. As for case-stacking, I propose experimental evidence that it is not possible in Seoul Korean but only possible in certain dialects such as Taegu Korean. This leads toward a proposal that parameterizes the 'One suffix rule' first proposed by Pesetsky (2013) and refined for Korean by Levin (2017).

1 Introduction

The following set of English data is very well attested.

(1) a. John gave a cake to Mary.   (Prepositional Dative Construction)
     b. John gave Mary a cake.   (Double Object Construction)

It is reported that Korean also has two varieties of ditransitive constructions. Kim (2015) provides the following data, dubbing them PDC and DOC respectively in a parallel fashion to English. We use precisely their terminologies here to introduce the two flavors.

(2) a. Hana-ka   Chelswu-eykey kheyikhu-lul cwu-ess-ta.
         Hana-NOM Chelswu-DAT   cake-ACC   give-PST-DEC
         'Hana gave a cake to Chelswu.'
     b. Hana-ka   Chelswu-lul   kheyikhu-lul cwu-ess-ta.
         Hana-NOM Chelswu-ACC cake-ACC   give-PST-DEC

'Hana gave Chelswu a cake.'

Meanwhile, there is another interesting case-related phenomenon in Korean, called 'case-stacking'. An example is given as (3), where a goal argument already marked with a dative marker is once again marked with accusative case - hence the nomenclature 'stacking'.

(3)   Hana-ka   Chelswu-eykey-lul kheyikhu-lul cwu-ess-ta.
        Hana-NOM Chelswu-DAT-ACC cake-ACC   give-PST-DEC
        'Hana gave a cake to Chelswu.'

So up to this point, we can see that the same verb and arguments can come together to form *three* different kinds of ditransitives in Korean: (2a), (2b), and (3). However, there is general disagreement as to how grammatical (2b) and (3) are. Kim (2015) herself reports that a number of her informants judged (2b) to be categorically ungrammatical[1], and my own intuition is that (2b) is very degraded, too. Scholars also report diverging intuitions surrounding (3). To be more specific, Schütze (1996, 2001) reports that marked prosody on the goal argument is necessary for (3) to be grammatical. On the other hand, Youn (1998) and Gerdts and Youn (1999) regard such prosody to be only optional (that (3) is grammatical either way).

This paper argues that marked prosody on the goal argument and contrastive focus on the same argument can, in tandem, salvage grammaticality of constructions like (2b) in Seoul Korean. As far as I know, the effect of these factors together has not yet been experimentally tested. For (3), I doubt that even these conditions will be enough to make case-stacking licit for Seoul Korean speakers. However, things will be different for those who speak Taegu Korean, where case-stacking seems generally possible. Section 2 reviews previous works and their contributions. Section 3 describes my hypothesis. Section 4 concerns how the experiment was developed and executed. Section 5 will discuss the results, and section 6 concludes. Section 7 finally describes plans for further study.

2   Background

An optimal analysis of any linguistic phenomenon should be based on solid empirical grounds. And I take that to be precisely why theoretical analyses of the three ditransitives do not converge well. In terms of case-alternation (like (2b)), while scholars such as Kim (2015) noted that some people categorically rejected the construction, it is taken to be something generally 'possible' or 'grammatical'

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[1]A reviewer for JK comments that (2b) is fine for them, which patterns with the majority of Kim (2015)'s informants, who did accept (2b).

in Korean. This is mostly because literature (Choi (2009), Yoon (2015) among others) on case-alternation usually name it a subtype of double accusative construction, and does not give much attention to the fact that they are categorically bad unless specific conditions are met (Lee and Nie, 2022).

I also note here that (2b) is qualitatively different from other multiple case constructions, in that exactly two and no more accusative arguments are present. The following shows that this is not the case for other, more commonly notified multiple case constructions.

(4) nay-ka cemsim-ul lamyen-ul sey kurus-ul mek-ess-ta.
I-NOM lunch-ACC ramen.noodles-ACC three bowl-ACC eat-PST-DEC
'I ate three bowls of ramen noodles for lunch.'

(5) Chelswu-ka tali-ka wispwupwun-i yalp-ta.
Chelswu-NOM leg-NOM upper.part-NOM be.thin-DEC
'Chelswu's leg's upper part is thin.'

2.1 Theoretical works

Judgments and theories diverge even more severely for case-stacking (like (3)). Of the scholars noted above, those who take marked prosody to be optional or do not comment on grammaticality at all (Kim (2015), Youn (1998), Gerdts and Youn (1999), Hong (2014), Choi (2009) among others) tend to aim for an analysis where the stacked accusative *lul* marks genuine case. Meanwhile, those who take marked prosody to be essential (Schütze (1996, 2001), Lee and Nie (2022) among others) lean toward analyzing stacked *lul* as a focus marker that does not mark genuine case (i.e., they posit multiple kinds of *lul*). Levin (2017) agrees that case-stacking is only licit in focus contexts, but attempts to retain the position that Korean case markers are not ambiguous as focus markers.[2] In sum, many conflicting theories are based on different empirical observations, and these seem unable to be reconciled by discussion of theory alone. Consequently, the goal here is to probe naive speaker intuition and possibly set a grounds for developing further accounts for these case-related phenomena.

One of the most widely accepted analyses comes from Levin (2017), where an enlightening extension of Pesetsky (2013)'s 'One suffix rule' is provided. The original and refined forms are stated below.

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[2]Levin (2017) argues many things based on the alleged stacking of *kkeyse-ka* (HONORIFICNOM-NOM). However, I consider this problematic for two reasons. First, *kkeyse* cannot be considered a marker of true nominative case, as it cannot be used for quantifier float (Choi, 2009). This is rather a hallmark of datives. This hunch is further supported by the fact that *kkeyse* has historically developed from a locative marker analogous to modern Korean's *eyse*, often used to mark dative subjects (Kim, 2014).

(6) *One suffix rule*   (Pesetsky, 2013)
      Delete all but the outermost case suffix.   (*based on Russian*)

(7) *Generalized one suffix rule*   (Levin, 2017)
      Delete all but one case suffix.   (*accounts for Korean*)

2.2 Empirical works

Recently, there have been a few experimental studies on Korean case-stacking pursuing this vein of thought. They generally argue that case-stacking and case-alternated ditransitives are unacceptable no matter what. Here I state their contributions and how they differ from what I am trying to test.

Jegal (2023) reports experimental data proving that case-stacking is considered categorically ungrammatical and that previous context was not enough to render it felicitous. I consider Jegal (2023) to be only a rough sketch of what I am trying to do here for a number of reasons. First of all, the study was conducted with pen and paper. That is, participants saw the written forms (like those in (2) and (3)) and scored them on a 7-point Likert scale. This is not good practice for case-stacking, because it is rarely attested outside of oral, informal situations. Furthermore, it cannot test the influence of prosody, which I predict can indeed improve readings of case-stacking. Finally, the experiment utilized the formal dative form *eykey*, while literature on case-stacking generally reports that the more informal dative marker *hanthey* improves grammaticality. Most crucially, Jegal (2023) has not tested how different dialects may display different paradigms of grammaticality.

As for *lul-lul* ditranstives, Yi and Park (2022) hypothesized that they are bad in general, and their hypothesis is claimed to be correct. They report that even if *lul* on a goal does mark contrastive focus or new information, native speakers judge it to be infelicitous. However, it is questionable if they have truly tested both. Their first experiment involved native speakers reading a sentence off of a screen and rating it. This did involve cases where contrastive focus is placed on the goal (via *not A*, *but B*-like constructions where *A* and *B* are potential goals), but it was not tested in oral language. Their subsequent experiment involved audio stimuli, but it had speakers answer a double-accusative wh-question rather than rate its naturalness. They claim that placing a wh- word on the goal argument in the question (as in 'Who did you give sth. to?) invariably gives it 'focus', but the 'focus' that wh- words and their corresponding answers carry are not exactly the same as contrastive focus, which is what they had tested in their prior experiment. To recap, this study studied the effect of contrastive focus, but not orally, and tested the effect of informational focus (the relationship of a wh- word and its answer) orally, but not contrastive focus. So still, the effect of specific prosody

combined with contrastive focus remains untested.

3   Observations & Hypothesis

My hypothesis is that both (2b) and (3) will be generally unacceptable to native speakers of Seoul Korean, but that *marked prosody on the goal*[3] and the *providing of contrastive focus*, taken together can render (2b) substantially more felicitous. This coincides with the observations noted in Levin (2017), that 'case morphology elision is strongly dispreferred when the argument they mark is constrastively focused'. In the case of Taegu Korean, I have observed informally that the utterances in question are widely attested. I ultimately aim to demonstrate that scholars have likely been zooming in on different varieties of Korean, possibly even a mixture of multiple dialects, and thus must prepare to analyze different grammars for different patterns of naturalness judgements.

If these observations are correct, it will have some serious theoretical implications. First, it will call for syntactic/semantic analyses of *lul* on a goal argument, as to why it needs to bear marked prosody and contrastive focus. This differs from grammatical constructions like (8), where temporal/spatial adjuncts seem to bear accusative markers even without marked prosody.

(8)   nay-ka aiphaytu-lul sey   pen-ul   ttelettuly-ess-ta.
      I-NOM iPad-ACC   three time-ACC drop-PST-DEC
      'I dropped an iPad three times.'

Finally, an analysis for why Seoul Korean disallows, but Taegu Korean allows case-stacking would need to be formulated. Theoretically, I intend to lean into the aforementioned Pesetsky (2013)'s *One suffix rule* as a starting point.

4   Experiment

4.1   Methods

4.1.1   Participants

3 participants were recruited from the Seoul region. They were asked to participate in a simple survey that tests Korean intuition, and were self-reported L1 Korean speakers. Because participants were congregated from my personal social circle for now, all were in their twenties or thirties.

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[3]More formally, following Jun (2000)'s K-ToBI (Tone and Break Indices) transcription conventions, if the goal argument onwards in a ditransitive forms a single AP (Accentual Phrase), I will consider the goal argument to have 'marked prosody'.

3 speakers from Taegu were also recruited personally, after the first set of experimentation on Seoul Korean speakers. While this is a small number, I informally reviewed the judgments for critical conditions afterwards with much more people whose native dialect is Taegu Korean. I paid special care to search for speakers who were less affected by the 'standard' dialect.

4.1.2 Stimuli

Four ditransitive constructions were used as auditory stimuli. They were recorded by Korean native speakers, two male and one female. All recorders were familiar with K-ToBI (Korean Tone and Break Indices) transcription conventions (Jun, 2000).

First, each construction was presented with the goal argument either having dative case-marking, accusative case-marking, or both ('stacked'). Next, the experiment further branches into more specific conditions to test two main factors.

One is the presence of marked prosody on the goal. Each stimulus was presented with or without such prosody to participants. The next factor is if there is a question that precedes the ditransitive. The question would be asked in the form of 'Did John give a cake to *Mary*?' to evoke a goal argument that will be corrected in the subsequent response. The second speaker would then answer with the Korean equivalent of 'No, it was *Tom* that John gave the cake to.' This, again, was presented with or without marked prosody on the italicized goal arguments.

(9) Chelswu-ka phyenci-lul Yenghuy cw-ess-e?
     Chelswu-NOM letter-ACC Yenghuy give-PST-INT
     'Did Chelswu give the letter to Yenghuy?'

(10) ??Chelswu-ka Yenghuy phyenci-lul cw-ess-e?
      Chelswu-NOM Yenghuy letter-ACC give-PST-INT
      'Did Chelswu give the letter to Yenghuy?'   (intended)

In total, three instances of case-marking, two prosodic conditions, and two contextual conditions amount to 12 conditions. With a total of 4 items, a total of 48 stimuli were created. To prevent participants from getting too familiar with each item itself, stimuli were split into two groups where each condition would be tested twice with two different items. An additional 20 fillers were added to each group, and the resulting mixture's order was randomized for each trial.

4.1.3 Procedure

During the experiment, participants were asked to listen to a Korean utterance or dialogue. They were then asked to rate the naturalness of what was uttered. In

the case multiple speakers were present (because half of the stimuli are question-answer sets), participants were asked to rate the last speaker. They listened to fillers to be rated as well, and were lastly asked for their age and regional dialect.

The independent variables, (i) if the goal argument bears marked prosody and (ii) if there is enough context to make the goal argument a locus of contrastive focus, taken together were expected to have an effect on the dependent variable, the naturalness ratings.

Participants were classified into two arbitrary groups and were given different links to the experiment (each labeled 'a' and 'b'). Stimuli were controlled so that no participant heard the same content more than twice, in case there would be an unwanted effect of familiarity.

The actual screen which participants looked at is given as figure 1. The Korean translates roughly to: 'Listen to the following Korean. Now rate how natural it sounds. If there are two or more speakers, rate the last speaker. 1 : very unnatural / 7 : very natural'.
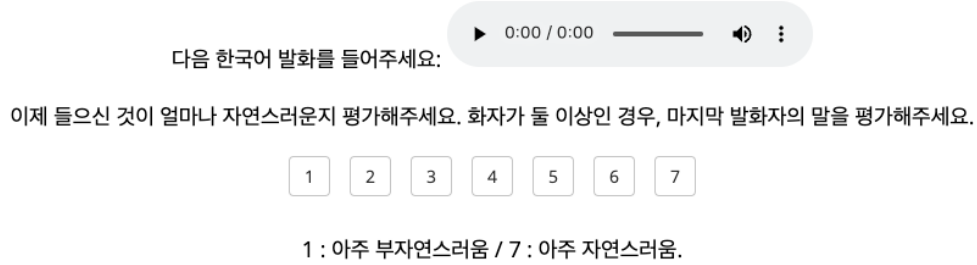

다음 한국어 발화를 들어주세요:

이제 들으신 것이 얼마나 자연스러운지 평가해주세요. 화자가 둘 이상인 경우, 마지막 발화자의 말을 평가해주세요.

1 : 아주 부자연스러움 / 7 : 아주 자연스러움.

Figure 1: Screenshot of experiment process

4.2 Results

Dative case-marking received near-perfect Likert scale ratings across the board. This demonstrates that this is indeed the canonical form that goal arguments bear. Interestingly, while contextual evidence was predicted to improve ratings, dative constructions scored worst in 'with prosody-no contrast' environments. I take this to come from participants expecting some sort of context that 'justifies' the use of such prosody. As for other ditransitives, the results are not so simple. I refer to Figure 2 and 3 to be discussed in the next section. The mean Likert-scale ratings for case-stacking constructions are summarized here, and each figure represents intuition of different regional dialects.
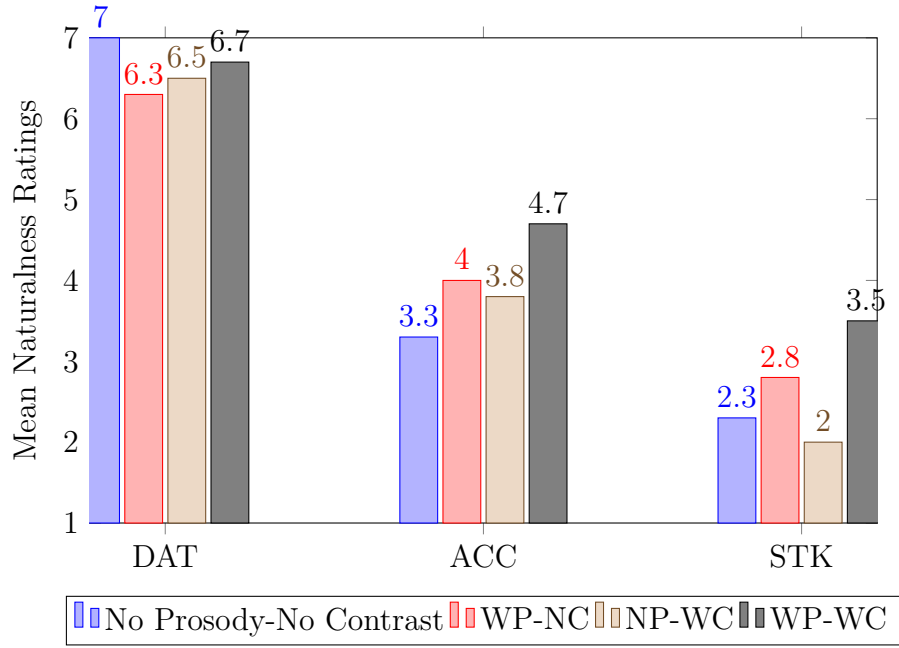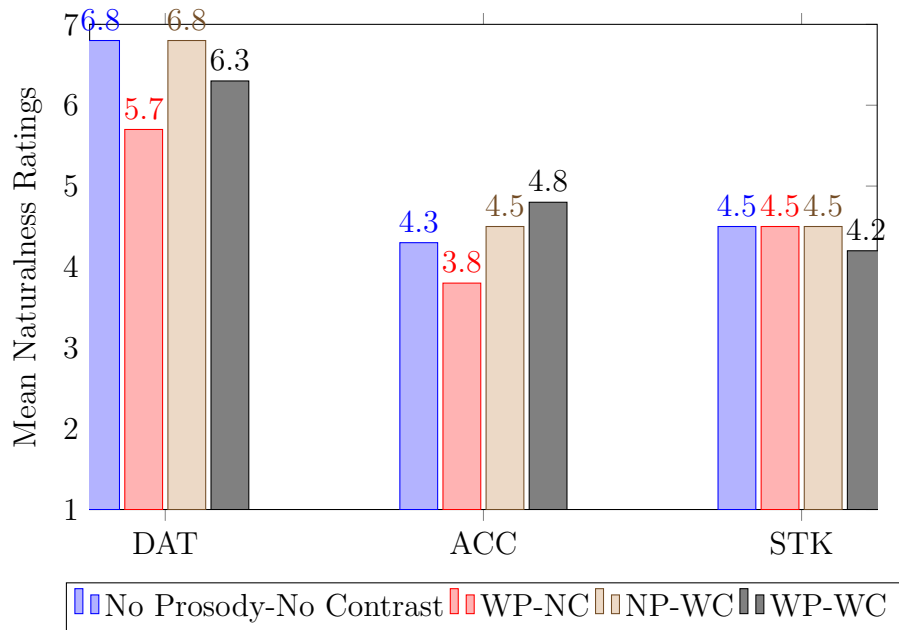
Figure 2: 'Standard' Seoul Dialect

Figure 3: Northern Gyeongsang (Taegu) Dialect

5   Discussion

The results of the experiment largely echo recent claims that double-accusative ditransitives and case-stacking constructions are categorically ungrammatical in general. However, we can see here that previous work is only partially correct; this applies only for Seoul Korean. In this case, marked prosody on the goal and contrastive focus, though only in tandem, can indeed salvage grammaticality of double-accusative ditransitive constructions. While marked prosody and contrastive focus on their own do not seem to critically improve naturalness ratings, the interaction between the two is conspicuous as in Figure 2.

On the other hand, the situation is different for case-stacking constructions. While there is indeed an increase in grammaticality that patterns similarly to that of double-accusative ditransitives, in no condition or item was the construction judged to be categorically 'good' from Seoul Korean speakers. Intuitively, no one who participated in the pilot experiment pressed '5', '6', or '7' for case-stacking constructions. A participant also contacted me saying she 'never heard or used such a word in her life' - which shows how bad this is for Seoul Korean speakers. In sum, for Seoul Korean, the conditions work as hypothesized with a strong effect in tandem. However, the conditions combined are not strong enough to render case-stacking grammatical. It is very marginal at best.

As for Taegu Korean speakers, the judgment of Youn (argued for in Youn (1998) and Gerdts and Youn (1999)) seems to be corroborated. This can be seen from Figure 3. Taegu Korean seems to generally allow for case-alternation and case-stacking on goal arguments. A point of interest is that the 'with prosody-no contrast(WP-NC)' condition on *lul-lul* ditransitives points to a different direction than Seoul Korean. While the WP-NC condition was better than 'NP-NC' conditions in Seoul Korean, ratings are worse for Taegu Korean. This patterns perfectly with the dative conditions. My interpretation is that when the original NP-NC condition is perfectly fine, speakers find it odd for marked prosody to be present when there is no contextual evidence to motivate it. This can be summarized by the statement below.

(11)   Speakers do not expect marked prosody for syntactically sound constructions, unless there is contrastive focus that motivates it.

In English also, when somebody says '*I* saw John yesterday', this is most natural in contexts where 'I' is in focus. If such context is not provided, it sounds rather odd out of the blue.

Taegu participants' ratings for case-stacking is even more interesting. A native Taegu speaker informed me that it is usually used for 'emphasizing' something, which I interpret to tie in with linguistic notions like 'focus' or 'marked prosody'.

According to (11), my prediction was that if some sort of 'focus' or 'context' justification is needed, it is not natural in principle. This is rather difficult to confidently claim, but I interpret the results to square with the intuition that the stacked form marks 'emphasis'. It is probably already conventionalized to mark focus on goal arguments. However, this needs to be further developed with more data and theoretical depth.

This calls for a general review of how proper a linguistic phenomenon case-stacking is. Youn (1998) notes that in his idiolect (regionally in Taegu), the phenomenon occurs in everyday speech and he judges it to be natural. This seems to be the case for others as well. Seoul Korean-speaking participants also gave better scores to case-stacking constructions than the utterly infelicitous controls (which, unsurprisingly, gathers many '1's or '2's on the Likert scale). The most plausible conclusion at this point is that case-stacking is at best a marginal type of construction for speakers of Seoul Korean, while double-accusative ditransitives can indeed be called felicitous, though only in very specific conditions.

Something that was not incorporated into the experiment but notified to me by many speakers of Taegu Korean is that they would have more eagerly accepted case-stacking if the goal argument was the only thing overtly uttered, as in (12).

(12)   ani, Yenghuy-hanthey-lul cw-ess-e.   (Taegu)
        no   Yenghuy-DAT-ACC   give-PST-DEC
        'No, it was *Yenghuy* that SUBJECT gave OBJECT to.

There was also a very obvious item effect where direct objects that were shorter *phyenci-lul* ('letter'-ACC) scored much better than longer ones like *umlyoswu-lul* ('drink'-ACC).

Interestingly, subsequent surveying of Seoul Korean speakers led me to think that the above preference is true for Seoul speakers' perception of double-accusative ditransitives, too. In the end, the optimal output of a *lul*-marked goal is (13). What I will do with these informally collected responses is explained further in Section 7.

(13)   ani, Yenghuy-lul   cw-ess-e.   (Seoul/Taegu)
        no   Yenghuy-ACC give-PST-DEC
        'No, it was *Yenghuy* that SUBJECT gave OBJECT to.

If what I have developed so far is true, and if we accept former analyses to be true, the *Generalized one suffix rule* in (7) is subject to parametric variation even within Korean. Specifically, the rule that competes with (7) is given as (14), and the so-called 'ranking' between the two seem to be reversed in Seoul and Taegu Korean.

(14)   *Korean case preservation constraint*   (Levin, 2017)
       A case particle cannot be deleted when a nominal to which it is suffixed
       is focused.

While (14) generally holds for all dialects of Korean, it seems like it is even
stronger in Taegu Korean where all case-markers are routinely preserved.[4]

6   Conclusion

I have demonstrated some empirical generalizations regarding non-canonical di-
transitives. The most central take-home message can be summarized as the fol-
lowing:

(15)   a.   Seoul Koreans regard dative marking to be the only natural case-
            marking on goals. The rest are marked and need salvaging. However,
            case-stacking is so unnatural to the extent that it is categorically bad
            (i.e. It cannot be remedied).
       b.   Taegu Koreans allow for accusative marking on goals; this is categor-
            ically natural for them. For case-stacking, it seems like it is possible,
            but judgments do not completely converge.

Meanwhile, there is one more caveat on top of the two conditions discussed; most
notably that the accusative/stacked goal appear adjacent to the overt verb (this
was commented to me multiple times).
This is compelling evidence that scholars who have reported diverging intuitions
on case-stacking likely utilize different dialectal grammars. This explanation fits
in nicely with the fact that two of the most central works on case-stacking is from
Youn, a Taegu Korean native. Subsequent studies either focused on 'standard'
Korean only or did not incorporate regional dialects as a factor.
While this paper lays out the fundamental grounds and empirical generalizations
that differ from but do not contradict any previous studies (rather, it concedes
that all of them are right, but based on different grammars), further theoretical
analysis is awaited, especially one that can explain the difference in regional
dialects' morphosyntax. I noted Pesetsky (2013) and Levin (2017)'s theories as
crucial starting points.

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[4]A tweak that must be made here is that as of now, I am unsure if focus and marked prosody
are even concerned in making case-stacking grammatical in the critical dialects.

7 Plans for further study

A refined list of stimuli and fillers is on the way for further experimentation. In the actual experiment, I plan to control for and observe the effect of regional dialect on paradigms of naturalness ratings. One last factor I plan to examine (post-hoc) stems from a few Taegu Korean speakers that say case-stacking is bad for them. There are two main hypotheses that must be entertained; either that they lived in Seoul for too long or that there's a subtle but true age effect. I expect to lean toward one hypothesis in the future.

If I find out which regional or social dialects do and don't allow for case-stacking (or maybe even case-alternation on goals), that would have significant implications for Korean linguistic theory. Furthermore, I plan to test if the phonological length of the argument appearing after a *lul* marked goal is a significant factor, as I claimed it to be based on post-hoc interviews. Conditions will probably be panned out as in (16).

(16)   {no overt Theme NP / two-syllable NP plus case-marking[5] / three syllable NP plus case-marking}

Another important direction to turn to is theorizing. The fact that only an interaction of two seemingly disparate linguistic factors can change grammaticality of ditransitives, and to different degrees depending on regional dialect, is intriguing. This is where previous studies inevitably disagree with each other. But with these new empirical findings, I surely expect enlightening analyses.

A   Link to experiments

https://s3.ap-northeast-2.amazonaws.com/snuling.com/experiments/leeyh/leeyh-exp-form-a.html
https://s3.ap-northeast-2.amazonaws.com/snuling.com/experiments/leeyh/leeyh-exp-form-b.html

B   Experimental stimuli

Stimuli and fillers can be found at https://github.com/linguistpenguin/korean-case-stimuli, in the form of WAV files.

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[5]see (9) and (10)

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