English Predicate Inversion:
Towards Data-driven Learning*

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I. Introduction

English employs the so-called 'predicate inversion (PI)' as exemplified by the attested corpus examples in (1):

(1) a. [AP Equally important in terms of forest depletion] is [the continuous logging of the forests].
    b. [PP At the back of the house], overlooking the garden, was [the large room Eleanor used as her study].
    c. [VP[en] Added to this] must be [an element of chance].
    d. [VP[ing] Being unemployed] could be [an advantage for people who want to start their own business].

In all these examples, the grammatical subject appears in the post-copular position, while the predicate complement of the copular verb *be* is preposed in the canonical subject position (cf. Birner 1994, Dorgeloh 1997). Such inversion examples all have the template given in (2):

(2) [Complement XP] + [(Aux) be] + NP[subject]

The type of the complement XP, as illustrated in (1), encompasses phrases such as AP, PP, and even the participle VP. The participle VP must also be the complement of the copular verb *be*, explaining the ungrammaticality of examples in (3):

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(3) a. *[Adding to this] must be an element of chance.
    b. *[Be unemployed] could be an advantage.

These are ill-formed since the fronted VP *adding to this or be unemployed* cannot serve as the complement of *be* as seen from the following:

(4) a. *An element of chance must be adding to this.
    b. *An advantage could be be unemployed.

Note that in addition to these PP, AP, or VP expressions, we can also invert an NP as long as it has a predicative function as illustrated in (5):

(5) a. John might be the teacher.
    b. [The teacher] might be John.

However, there is a certain pragmatic constraint that needs to be observed in this kind of inversion. The inverted predicative NP in the sentence initial position is associated with a reference linked to the preceding context, and the subject is canonically long and heavy introducing new information (cf. Biber et al. 1999).

(6) a. Nothing on the walls, with one exception: Tacked over the bed was a yellowed, deckel-edged photograph.
    b. Standing on the sand is a beach hut built like a mini-mosque.

In both of the cases in (6), the inverted predicative contains a definite NP (e.g., *the bed* and *the sand*) linked to the previous context, and the subject introduces new information. In addition, the inverted predicate NP needs to be presuppositional (cf. Moro 1997). Observe the following contrast:

(7) a. *A teacher is John.
    b. An IMPORTANT teacher is John.

As seen in (7a), the inverted predicate NP canonically cannot be indefinite. However, as given in (7b), the inversion of an indefinite NP can be saved when the indefinite NP specifies a prominent example of an individual ('example reading'). The example of 'an important teacher' here fulfills a predicate whose membership is already in question in the discourse (cf. Chen 2003, Schueler 2004). That is, the prior discourse pre-

supposes the proposition 'x is an important teacher.'

English inversion constructions including the PI construction are not only hard for non-native speakers (L2 learners) to learn but also difficult to teach because of their intriguing grammatical and discourse properties, some of which we have just described. This paper aims to chart the grammatical (distributional, syntactic, semantic, pragmatic) properties of the PI construction and argue for using data-driven learning mechanisms (cf. Hadely 2002, Braun 2007). In doing so, we first provide the results of our corpus search of the construction and then discuss its grammatical properties. We then check how L2 learners and even L1 speakers conceive the PI based on our 'preliminary' pilot tests.[1] Finally, we sketch a data-driven learning method that we have used in teaching the PI construction to advanced L2 learners.

II. Grammatical Properties: Corpus Findings

To better understand the grammatical behavior of the PI construction, we did a corpus search which can guide us to authentic data, rather than to the data built from linguists' intuition. The corpus we used is ICE-GB (International Corpus of English, Great Britain), containing about 1 million words of spoken and written British English. As one of the strong merits of the corpus, all the text units in ICE-GB are syntactically parsed, allowing us to perform detailed syntactic searches. Of the total 88,357 text units (parsed trees or sentences), 60,894 are spoken text units whereas 27,463 are written text units.

In the ICE-GB corpus, we have first identified all the inversion constructions and then sorted out PI examples.[2] ICE-GB gives us total 698 instances of inversion sentences, reaching about 0.79% of total 88,357 sentence units. The types of inversion and their frequency can be summarized as following:[3]

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[1] The tests in the current project are 'preliminary' in the sense that they require a more thoughtful design. However, since the main purpose of this paper is to show positive sides of active learning. we believe the preliminary tests may have their own merits.

[2] The ICE-GB accompanies the search engine ICE-CUP. We used the feature inverted to search inversion examples, but did not get PI examples. For PI examples, we used the tool FTF (fuzzy tree fragment) with the template of 'XP be NP.'

[3] The 'others' type includes examples like the following:

(8) Frequency of Inversion Constructions in the ICE-GB:

Inversion Type	Frequency
predicate inversion	162 (23.21%)
negative inversion	96 (13.75%)
quotative inversion	81 (11.60%)
full verb inversion	69 (9.89%)
so-inversion	43 (6.16%
counterfactual inversion	43 (6.16%)
as-inversion	20 (2.87%)
concessive	7 (1.00%)
than-inversion	4 (0.57%)
others	173 (24.79%)
total	698 (100.00%)

Some canonical examples of these inversion types we found from the ICE-GB are given in the following:[4]

(9) a. Negative inversion: Nor may they take books from another reader's place.
  b. Full verb inversion: In this green fur live some small moths.
  c. Quotative inversion: "This was the turning point" recalls Wirtz.
  d. So-inversion: If the will is there, so is the way.
  e. Counterfactual inversion: Had he won the nineteen seventy election, he would have resigned in nineteen seventy-two or nineteen seventy-three.
(10) f. As-inversion: Tea operations in Europe and the US did well, as did Irish retailing.
  g. Concessive inversion: Be it pleasure or specimen oriented, different people will tend towards different baits.
  h. Than-inversion: The implication is that physical illnesses can be

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(i) a. Such was my lack of self confidence.
  b. Here is the City News.

Examples like (a) and (b) can be taken to be predicate inversion examples, considering that the post copular element is the subject. In ICE-GB, such examples are all tagged as inverted sentences.
[4] All these examples are from ICE-GB and slightly edited for readability.

diagnosed more reliably than can mental illnesses.

Of these varieties of inversion constructions, we have identified total 162 PI examples from both spoken and written texts in ICE-GB. Considering the total number of sentences (88,357), this number means less than 1% and there is no significant difference between written and spoken in using PI examples. However, we cannot deny the fact that understanding the grammatical properties of PI in a proper way is also an important part in learning the target language.

1. Distributional and Syntactic Properties

The preposed syntactic categories of the PI involve four main types: PP, VP(*ed/ing*), NP, and AP. All of these expressions function as the complement of the copula. The frequency of predicate inversion type depending on preposed constituent is given in the following:

(10) Frequency of inverted phrases in the PI:

Phrase	PP	AP	VP[*ing*]	VP[*en*]	NP	total
Frequency	91	25	17	12	17	162

As noted in the table, the PP-inverted PI is the most common type. Some of the attested examples are given in (11):[5]

(11) a. Of course [on the other side of the park] was Arnold Bax in the Academy. (S1B-032 087:1:B)
   b. [On the walls of the church] are some delightful votive paintings showing miracles attributed to the two saints. (S2B-027 1:A)

The PP-inverted PI is similar to the so-called locative examples like the following:[6]

(12) a. [Outside the Church's boundaries] lay the truly independent congregations. (W2A-006 076)
   b. [In this green fur] live some small moths. (W2B-021 067)

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[5] The tag number beginning with 'S' stands for spoken while those with 'W' means written texts in the ICE-GB.
[6] See Rochemont and Culicover (1990) and Kim (2003) and references therein for the main properties of locative inversion in English.

The only difference from PI is that instead of the copula *be*, we have main verbs like *lay* and *live* here. There is reason to differentiate PI from LI (locative inversion), as observed from the following PP inversion examples (Green 1980):

(13) a. [On offer] are door and window locks, door chains, spy-holes and smoke alarms.
   b. [Of particular concern] is the damage the storms caused to one-and-a half miles of coastline on the island of Rousay.

In these PI examples extracted from the BNC corpus, the inverted PP is not locative. Each PP just functions as a predicative complement of the copula *be*.[7]

The ICE-GB corpus gives us examples with the AdvP inverted, but we counted them as PP-inverted PI examples:

(14) a. And [quickly in there] was Barker. (S2A-003 078:1:A)
   b. [Up on the outside] is New Halen. (S2A-005 096:2:A)

It is a mistake to tag such examples as AdvP-inverted ones, possibly due to the adverbial element *quickly* and *up* in the sentence initial position. As seen from (15), the overall expression in the inverted position is not an AdvP but a PP:

(15) a. Barker was in there.
   b. New Helen is on the outside.

As shown in the frequency table in (10), the PI with an inverted present (*ing*) and past (*en*) participial VP has the second highest frequency (29 examples together). Some of the examples are given in (16):

(16) a. [Performing a different function] are those localities that benefit disproportionately from colonially derived investment. (W2A-020 041:1)
   b. [Enclosed] is the settlement for the Birmingham Six Victory Celebration. (W1B-021 102:8)

Even though one may claim that the fronted VP here is not really an

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[7] The BNC (British National Corpus) is a balanced corpus containing 100 million words and available online.

inverted element but functions as a gerundive subject, it is not that difficult to see that the subject is in the postcopular position. For example, subject-verb agreement in the following indicates that the subject is in the post-copular position:

(17) a. [Justifying their decision] is/*are a fairly traditional process.
　　　b.[Competing] are/*is Northern Ireland, Oxford, Cambridge, Wales, London, Scotland, and UAU.

If the postposed element were not a grammatical subject, it would be hard to explain the agreement pattern here.

The corpus also provides a non-trivial number of AP-inverted PI examples:

(18) a. [Imperative too] is the need to economise at the Home Office. (W2C- 007 072:2)
　　　b.[Equally important in terms of forest depletion] is the continuous logging of the forests. (W1A-013 071:2)

One interesting point we have observed is that there are many cases where the inverted AP has only one single adjective as exemplified from the following naturally occurring examples from the BNC:

(19) a. [Invisible] was the word you used.
　　　b. [Crazy] is living in a fog and pissing your pants.
　　　c. [Outstanding] is the amazing feat of endurance by a corporal.

Most of the single inverted adjectives here are evaluative ones, implying that they carry an intended discourse function, such as highlighting the 'theme' message (cf. Heidrum 1997, Chen 2003).

In addition to these phrasal categories, the inverted phrase in PI also includes a predicative NP, as illustrated in (20):

(20) a. But [a fly in the ointment] is inflation. (S2B-002 026:1:B)
　　　b.[Blue cap] is Filial and Magadir at the back.
　　　 (S2A-006 184:5:A)

The NP inverted PI is hard to identify on purely syntactic grounds since the inverted NP can also function as a canonical NP. However, the use of an indefinite article as in (20a) or no article as in (20b) indicates that the initial NP is an inverted expression since these types of NP canonically

carries properties of a predicative, rather than those of a subject (cf. Huddleston and Pullum 2002).

2. Discourse and Information Structure

In terms of discourse factors, our findings basically support the previous observation that the preposed phrases represent more familiar information than the postposed subject (cf. Birner 1994, Birner and Ward 1992, Birner and Ward 1998). As seen from the following examples, the preposed element is discourse-old whereas the postposed one is discourse-new:

(21) a. We have complimentary soft drinks, coffee, Sanka, tea, and milk. Also [complementary] are red and white wine.
   b. She got married recently, and [at the wedding] were the mother, the stepmother, and Debbie.

In (21a), the phrase *complementary* is given in the prior sentence whereas in (21b), the PP *at the wedding* is discourse-linked to *married* in the preceding context. Meanwhile, the postposed subject in both cases give us new information. As such, the preposed element in PI canonically presents more familiar information than the postposed subject does.

In addition to this general discourse constraint, we need to be able to infer an appropriate open proposition as noted in Huddleston and Pullum (2002). For example consider the following examples in which discourse relations are presupposed:

(22) a. This is the first of a series of biennial exhibitions which will include painting, sculpture, photography, installation and video. [Participating] will be [the Fisher Gallery, University of Southern California; the Japanese American Cultural and Community Center].
   b. They walked carefully across the twins' vegetable garden, picking their way through rows of cabbage, beets, broccoli, pumpkins. [Looming on their left] were [the tall stalks of corn].

In (22a), from the preceding context, we can infer the open proposition such that 'x is participating' whereas in (22b), we can conjecture the proposition 'x is looming on their left'. When it is hard to construct such an open proposition, we encounter difficulties in building the PI construction.

The weight of the preposed element can be another factor in affecting

the inversion. Almost all the 162 PI examples we have identified show us that the number of the words in the preposed expression is less than that of the words in the postposed subject:

(23) Weight of the Preposed and Postposed Phrase:

Inverted Phrase	# of Preposed Words	# of Postposed words
AP	4.20	15.48
NP	6.35	6.94
PP	5.05	10.85
VP[en]	5.50	12.75
VP[ing]	5.47	10.76
means	5.14	11.28

As shown in the table, except for the NP inverted PI, we observe the tendency of having heavy subjects in the postposed position. Of total of 162 ICE-GB examples, the average number of postposed words is 11.28 compared to that of preposed ones is 5.14. The difference value D (number of the preposed words minus number of the postposed words) is higher than 5, supporting the suggestions that inversion is related to the weight of the subject relative to the preverbal constituent, mainly triggered by language processing reason (cf. Wasow and Arnold 2003).

Ⅲ. A Pilot Test

To figure out how advanced L2 learners conceive the PI construction, we have first made a simple quiz with 15 questions including both PI and non-inverted canonical questions.[8] Some of the questions we used include:[9]

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[8] The non-inverted canonical word-order sentences are included as a distractor.

[9] The subjects are taken to be advanced learners since they are all sophomore students (majoring in English) in a upper-middle level university whose university entrance exam requires about top 5% scores in the class. As a reviewer points out, we admit that a more accurate test needs to be administered to define 'advanced learners.' We believe that the use of 'advanced learners' here will not affect our discussion.

[1-9] Rearrange the given expressions so that we can have a best sentence that fits in the blank.

1. Two young men were hurt yesterday during a bungled convenience store robbery, according to police. Two suspects were arrested at the scene and are now in custody. _____ [were / wounded / Paul Randolph and Steve Seymour]
9. The most visually enticing selection is the chocolate "delice": a hat-box shaped dessert made of dark chocolate and filled with berries and white chocolate mousse. _____. [the mosaic of four fruit sauces / surrounding the creation / is]

[10-15] Choose the one that best completes the underlined part.

11. Weeds had taken over the path, showing no sign of damage from the movement of the gate or the tramp of feet. _____.
a. Flanking the gates were low walls topped with railings.
b. Flanking were low walls topped with railings the gates.
c. Low walls topped with railings were flanking the gates.
d. Railings were low walls, flanking the gates.

The 15 questions consist of 3 canonical word order and 12 inverted PI sentences.[10] In terms of the inverted phrase type, the test has 5 PP-inverted ones, 1 AP inverted, 4 VP[*ing*] inverted, and 2 VP[*en*] inverted PI questions. We administered this test to 39 undergraduate students whose native language is Korean. The table in (24) shows us the rate for providing correct answers to canonical and inverted PI sentences:

(24) Rate for the Correct Answer by L2 Learners:

Question Type	Percentage of correct answers
3 canonical ordering	90.40%
12 inverted ordering	10.70%
15 questions together	25.80%

To figure out how native speakers conceive such PI examples, we also

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[10] The number of the question is the actual number used in the test.

administered this test to 5 native speakers of English who are teaching English at a university level.[11] For the questions requiring canonical word order, they chose all the correct answers, but the native speakers missed some PI questions.

(25) Rate for the Correct Answer by Native Speakers:

PI Type	Percentage of correct answers
PP-inverted	50%
VP	80%

For example, Question 7 with the PP inverted PI below was missed by about half of the teachers, whereas Question 11 with the participle VP inversion is answered correctly by 4 of the five subjects.

(26) 7. She got married recently, and [at the wedding were the mother, the stepmother, and Debbie].
    11. Weeds had taken over the path, showing no sign of damage from the movement of the gate or the tramp of feet. [Flanking the gates were low walls topped with railings].

The answers by the native speakers show us that inverting a participle VP is easier than inverting phrases like PP or AP.

The test results have shown us that non-native speakers have great difficulties in understanding PI sentences. In addition, even native speakers are sometimes using canonical sentences rather than PI sentences in the place where the latter is preferred. One main plausible reason seems to be closely related to language differences. For example, Korean does not employ such a syntax-based inversion process. Another reason may have to do with the fact that L2 learners are not exposed to such inversion at a desired level.

To check how much the Korean students are exposed to inversion construction, we checked five different kinds of English textbooks used at high school in the year of 2010.

(27) Frequency of Inverted Sentences in Five High School Textbooks:

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[11] The main purpose of administering the test to native speakers is to see how they conceive PI examples.

Textbook	# of sentences	# of inverted sentences
A	617	7(1.13%)
B	619	11(1.78%)
C	535	20(3.74%)
D	588	8(1.36%)
E	700	7(1.00%)
Average	611.8	10.6(1.80%)

On average, the high school textbook contains about 611 number of sentences in the main text with about 10.6 inverted sentences (excluding questions). Of these total 53 inverted sentences, we find only 7 instances of predicate inversion as seen from the following table:

(28) Inversion Types in the Five High school Textbooks:

Inversion Types	Frequency
Quotation inversion	11
Negative inversion	9
Predicative inversion	7
Counterfactual	5
Others	21
Total	53

As seen here, the major inversion types, whose examples are given in (29), are all those focused in traditional school grammar:

(29) a. No sooner had they seen it than they started a cleanup project.
　　　b. "Is your advertisement getting results?" said the first man.
　　　c. Across the ba on yet another hill is the burial ground of the Nazi paratroopers.
　　　d. I would not have been alive, had you not saved my life.

One thing we have found is that of the seven PI examples, we have found no participle VP-inverted PI examples from the high school textbooks. With this small number of PI sentences, it is hard to decide whether L2 advanced language learners are properly exposed to PI sen-

tence types. L2 learners (including high school students) in Korea have few chances to experience the diversity as well as complexity of English PI constructions.

IV. Data-Driven Learning

1 Basic Concepts

With the development of computer technology, electronic corpora are used in language teaching and learning more than before. As Johns (1991) points out, DDL (Data-Driven Learning) is an 'attempt to cut out the middleman as far as possible and to give the learner direct access to the data'. DDL basically guides learners to detect patterns among multiple language samples, rather than study overt rules in a passive way. The basic idea of data-driven learning thus focuses on:

- exploiting authentic materials even when dealing with tasks such as learning grammatical structures and lexical items,
- using real, exploratory tasks and activities rather than traditional exercises,
- and adopting learner-centered activities.

One useful method in administering DDL is corpora. Corpora, together with tools like frequency and concordances, can give learners information on how a certain expression is used. Learners will then detect regular patterns in the data in a natural way (see Johns 1991, Boulton 2010). For example, Korean L2 learners often have difficulties differentiating perception verbs like *see, watch* and *look*. A concordancing software can extract lists with sample contexts of any word or structure entered into the search option. For example, Figure 1 is the result of searching these verbs in the two million-word corpus CSPAE (Corpus of Spoken Professional American English) using the concordance program MonoConc Pro:

From these outputs, learners can extract difference in meaning, connotation, and grammatical features among these three verbs.

Figure 1: Concordance of *look*

Through such a discovery-based active mode, language learners can acquire grammatical rules including where and how to use such perception verbs in a proper way. DDL thus shifts language learning to a learner-centered paradigm in which learning is perceived as a self-structured and self-motivated process of knowledge construction. In this paper, we use a similar DDL method in learning English PI (predicate inversion) construction.[12]

2. Learning Predicate Inversion through DDL

In order to teach the proper use of PI sentences, we have employed a data-driven learning (DDL) method. As noted, DDL tries to use authentic data such as corpora in language learning (Braun 2007, Boulton 2010), applying tools such as concordance or other techniques from corpus linguistics in language learning. Its goal is thus, by exploiting authentic materials, language learners will better experience target grammatical structures or lexical items. With these in mind, we have designed the fol-

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[12] We once again admit that this is a pilot project which requires a much more thoughtful design to be scientifically valid. The purpose of this paper is limited to providing a sample of implementing DDL to the PI which even native speakers have difficulties in using.

lowing three sample activities for the same 39 students.[13]

Activity 1: The following two texts are different with respect to having an inverted or noninverted sentence. Compare these two and discuss which ordering is better in discourse.

(i) a. Hey, mom - What's going on outside? A police car is parked in front of the William's house. My biology teacher is in the back seat.

b. Hey, mom - What's going on outside? A police car is parked in front of the William's house. In the back seat is my biology teacher.

(ii) a. George, can you do me a favor? a pinkish-reddish envelope that has to go out immediately is up in my room, on the rightstand.

b. George, can you do me a favor? Up in my room, on the right-stand, is a pinkish-reddish envelope that has to go out immediately.

Activity 2: The following text, excerpt from a corpus, contains an inverted sentence. Discuss why the author/speaker used the inverted word order, instead of canonical word order.

(iii) a. Now Paul Thorpe is the other unbeaten rider at this stage. He's got six points from two rides and he comes out in heat number eleven. Coming up next is heat number ten which features David Mullet the Reading rider who has one point so far from his two rides.

b. In 1983, 40 percent of Uruguayans lived in Montevideo, 37.3 percent of Chileans in Santiago, 34.1 percent of Argentines in Buenos Aires and each of these countries, like Venezuela, was three-quarters urbanized. Also heavily urbanized was Mexico, with 20.1 percent of Mexicans living in the capital region, which is generally regarded now as the world's largest city.

After these two activities, we explained to students that there are grammatical constraints as well as discourse constraints on the PI construction. That is, as we have discussed in earlier sections, the complement of

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[13] The examples in Activity 1 are from Birner (1994) and those in Activity 2 are from ICE-GB.

the copular verb *be* can be inverted to observe the discourse constraints or tendency to have discourse-familiar information and then discourse-new information later. By learning that the information status of the subject and the predicate complement influences the word order, students are better exposed to the grammatical effects of PI. After these simple activities, students are asked to do the following activity, which is similar to the pilot test we performed.[14]

Activity 3: Complete the underlined part by rearranging the given expressions.

(iv) a. Bush wants Congress to give him the authority to go forward with the tribunals. But legal experts say they'd have to be completely revised to comply with the rule of law and Geneva Conventions. _____ ([the issue], [sharply dividing], [Capitol Hill], [is]), where legislators will continue to grapple with it this summer.

   b. A recent survey of senior-class presidents in high schools around the nation has shown that 73% approve of draft registration for 18 year old men and 51% favor prayer in public school. _____ ([the issue of abortion], [sharply dividing], [the class presidents], [was])—50% supported a woman's right to terminate an unwanted pregnancy; 32.5% opposed it.

This time the number of students answering the correct word ordering has increased significantly up to 60%: canonical word order for (29a) and inverted PI examples for (29b).

It is rather premature to judge how effective this DDL style of teaching, but it seems to us that authentic data give students a more clear idea of when to use PI sentences and why the speaker or the author introduces this. However, one thing that is clear is that this real and exploratory task, rather than traditional exercises with ready-made questions, helped students better understand when to use the PI.

V. Conclusion

We have seen that English PI construction displays quite complex syn-

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[14] The example (a) is from CBC-news, Canada News, July 10, 2006 and (b) is from Birner and Ward 1991.

tactic and discourse properties. Syntactically a variety type of the copular complement can be preposed while the subject is postposed. In terms of discourse, the preposed element is discourse-old whereas the postposed one is discourse new. Language differences as well as lack of exposure to PI sentences make it hard for L2 learners to use PI sentences in an appropriate way.

After being exposed to the real data and in-depth syntactic as well as information-structure analysis of the PI construction, it seems that the class students have had a far-more clear understanding of the construction in question and have realized that grammar does not mean to live on by itself but tightly interacts with other important grammatical components such as information structure. Though the study needs to be improved with a more fine-grained design in implementing DDL, the study directs us toward both a data-driven and interactive grammar learning and teaching.

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Key Words: predicate inversion, data-driven learning (DDL), information structure, corpus

Works Cited

Biber, Douglas, stig, Johansson, Geoffrey, Leech, SusanConrad, and Edward. Finegan. *Longman Grammar of Spoken and Written English*. Person Education. 1999.

Birner, Betty J. "Information Status and Word Order: An Analysis of English Inversion." *Language* 70 (1994): 233-59.

Birner, Betty, and Gregory Ward. "On the Interpretation of VP Inversion in American English." *Journal of Linguistics* 28 (1992): 1-12.

———. *Information Status and Noncanonical Word Order In English*. Amsterdam; Philadelphia: John Benjamin Publishing. 1998.

Boulton, Alex. "Data-driven Learning: Taking the Computer Out of the Equation." *Language Learning*: 60 (2010): 534-72.

Braun, Sabine. "Integrating Corpus Work into Secondary Education: From Data-driven Learning to Needs-driven Corpora." *ReCALL* 19 (2007): 307-28.

Chen, Rong. "English Inversion: *A Ground-before-figure Construction*. Mouton de Gruyter. 2003.

Dorgeloh, Heidrun. *Inversion in Modern English: Form and Function*. Amsterdam; Philadelphia: John Benjamin Publishing. 1997.

Green, Geogia M. "Some Wherefores of English Inversions." *Language* 56 (1980): 582-601.

Hadley, Gregory. "Sensing the Winds of Change: An Introduction to Datadriven learning." *RELC Journal* 33 (2002): 99-124.

Huddleson, Rodney, and Geoffrey K. Pullum. *The Cambridge Grammar of English Language*. Cambridge UP, 2002.

Johns, Tim. "From printout to handout: Grammar and Vocabulary Teaching in the Context of Data-driven Learning." *English Language Research Journal* 4: 27-45.

Kim, Jong-Bok. "English Locative Inversion: A Constrained-Based Approach." *Korean Journal of Linguistics* 28 (2003): 207-35.

Moro, Andrea. *The Raising of Predicates: Predicative Noun Phrases and the Theory of Clause Structure*. Cambridge: Cambridge UP, 1997.

Rochemont, Michael, and Peter Culicover. *English Focus Constructions and the Theory of Grammar*. Cambridge: Cambridge UP. 1990.

Schueler, David. "Presuppositional Predicates and Sentential Subject Extraposition." Eds. Garding, G. and Tsujimura, M., *WCCFL 23 Proceedings* (2004): 101-14, Cascadilla Press.

Wasow, Tom, and Jennifer, Arnold. Post-verbal Constituent Ordering in English. Eds. Rohdenburg G. and Mondorf B. (eds), *Determinants of Grammatical Variation in English* (2003): 119-54.

Abstract

English inversion constructions are not only hard for non-native speakers to learn but also difficult to teach mainly because of their intriguing grammatical and discourse properties. This paper addresses grammatical issues in learning or teaching the so-called 'predicate inversion (PI)' construction (e.g., *Equally important in terms of forest depletion is the continuous logging of the forests*). In particular, we chart the grammatical (distributional, syntactic, semantic, pragmatic) properties of the PI construction, and argue for adata-driven teaching for English grammar.

To depart from the arm-chaired style of grammar teaching (relying on author-made simple sentences), our teaching method introduces a data-driven teaching. With total 25 university students in a grammar-related class, students together have analyzed the British Component of the International Corpus of English (ICE-GB), containing about one million words distributed across a variety of textual categories. We have identified total 290 PI sentences (206 from spoken and 87 from written texts). The preposed syntactic categories of the PI involve five main types: AdvP, PP, VP(*ed/ing*), NP, AP, and so, all of which function as the complement of the copula. In terms of discourse, we have observed, supporting Birner and Ward's (1998) observation that these preposed phrases represent more familiar information than the postposed subject. The corpus examples gave us the three possible types: The preposed element is discourse-old whereas the postposed one is discourse-new as in *Putting wire mesh over a few bricks is a good idea*. Both preposed and postposed elements can also be discourse new as in *But a fly in the ointment is inflation*. These two elements can also be discourse old as in *Racing with him on the near-side is Rinus*. The dominant occurrence of the PI in the spoken texts also supports the view that the balance (or scene-setting) in information structure is the main trigger for the use of the PI construction.

After being exposed to the real data and in-depth syntactic as well as informationstructure analysis of the PI construction, it is proved that the class students have had a farmore clear understanding of the construction in question and have realized that grammar does not mean to live on by itself but tightly interacts with other important grammatical components such as information structure. The study directs us toward both a data-driven and interactive grammar teaching.