

Ken Safir: *The Syntax of (In)dependence*

Cambridge, Massachusetts: MIT Press, 2004. xvi + 194pp.

Makoto Kondo

Natural language expressions sometimes disallow interpretations which seem to be logically available if we consider the meanings and linear arrangement of the words in the expressions alone. Such empirical findings have led linguists to the conclusion that abstract structural properties of linguistic expressions impose restrictions on how the expressions can be construed. The book under review is one of the attempts to reveal the exact nature of the structural properties in question.

The central idea underlying the proposed analysis is that “dependent identity interpretations are restricted by a c-command prohibition and not by a c-command licensing condition” (p. 2). In embodying the c-command prohibition, the author proposes the Independence Principle (INP) stated in (1), which should be contrasted with the C-command Licensing Principle (CLP) in (2).¹

- (1) If x depends on y , then x cannot c-command y .
- (2) If x depends on y , then y must c-command x .







In chapter 1, the author outlines the central idea and makes some preparatory theoretical considerations. In chapter 2, the author compares the INP approach with the CLP, and determines structures that allow bound reading. Based on the theoretical preparations discussed in these two chapters, the author demonstrates how the proposed system is applied to linguistic phenomena in the subsequent two chapters. Chapter 3 deals with crossover effects and chapter 4 is devoted to reconstruction effects and dependent reading. In chapter 5, the author discusses how his proposals fit into the architecture of

UG, and especially argues against approaches which assume that coconstrual is achieved by movement (e.g., Hornstein 2001, Kayne 2002).

In this review, space considerations preclude referring to whole discussions in the book. Accordingly, the reviewer will make a brief introduction of the author's main idea (section 1) and its application to crossover effects (section 2).² The reviewer will also demonstrate possible extension of the proposed system to superiority effects (section 3).

1. Dependency and the Independence Principle

The author argues that the INP should determine the possible range of bound reading as demonstrated in (3), where coconstrued terms are marked in italics.³

- (3) a. *Everyone* loves *his* mother.

- b. *Everyone's* mother loves *him*.

- c. **His* mother loves *Bill*.

- d. *He* says that Angie loves *him*.

- e. Egil loves *Freya*. Ketil loves *her* too.

- f. **He* says that Angie loves *him*.


Following Higginbotham (1983, 1985), the author abandons indices because they do not represent asymmetric relation; that is, coindexing does not distinguish depending elements from elements that they depend on. Accordingly, the author employs the anchor “┌” and the hook “┐” to represent an antecedent and a depending term, respectively.

The availability of bound reading in (3a, b, d, e) is straightforwardly ex-

plained by the INP since the depending terms do not c-command their antecedents in these configurations.⁴ The unavailability of bound reading in (3f) is also predicted by the INP since the depending term *he* c-commands its antecedent *him*. Note that the unavailability in question does not prohibit coreference between the two pronouns because the availability of bound reading in (3d) guarantees the coconstrual of the two pronouns. In other words, the INP allows the embedded object to depend on the matrix subject while the principle prohibits the reverse dependency.

The bound reading in (3c) is excluded by the following principle (the extended INP):

- (4) α cannot depend on β if α is embedded in a nominal γ and γ c-commands β .⁵

Since *his* in (3c) is embedded in the subject, the pronoun cannot depend on the object *Bill*, which is c-commanded by the subject, in accordance with the extended INP. Note that the unavailability of the dependency should not exclude coreference between *his* and *Bill* in (3c), since the coreferential reading is, in fact, available. The author distinguishes coconstrual arising from dependency and one arising from other sources, and suggests that the coreference in (3c) should be obtained from a source other than dependency.

2. Crossover Effects

Crossover effects have attracted much attention from generative linguists for more than 30 years and many approaches have distinguished strong crossover (SCO) exemplified in (5) from weak crossover (WCO) demonstrated in (6).⁶

- (5) a. *Who* said *he* hates Malva?



- b. **Who* does *he* hate?



- (6) a. *Who* saw *his* mother?



b. **Who* did *his* mother see?



The SCO effects have been reduced to a principle that bans local c-commanding of a variable by an antecedent in an argument position. (See Chomsky 1981 for a typical example of this type of approach.) The WCO effects, on the other hand, have been explained by somewhat construction-specific principles like Koopman and Sportiche's (1983) Bijection Principle and Safir's (1984, 1986) Parallelism Condition on Operator Binding.

The author takes a different track from those approaches and proposes a unified account for the SCO/WCO effects based on the (extended) INP.⁷ The SCO effects are straightforwardly accounted for by the INP, since the INP prohibits a nominal from depending on another nominal that it c-commands. In both (5a, b), the pronouns depend on the *wh*-traces. In (5a), the pronoun does not c-command the *wh*-trace, satisfying the INP. In (5b), on the other hand, the depending pronoun c-commands the *wh*-trace, leading to the INP violation.

The WCO effects in (6) are explained by the extended INP, which disallows a nominal containing a depending nominal to c-command the antecedent of the depending nominal. In (6a), the object contains the depending nominal and it does not c-command the antecedent (i.e., the trace of *who*). In (6b), on the contrary, the depending pronoun is contained in the subject, which c-commands the antecedent. The extended INP thus correctly distinguishes the acceptable sentence in (6a) from the unacceptable WCO case in (6b).

3. Extension of the INP

So far we have seen what the author's main idea is and how it is applied to some linguistic phenomena. In this section, let us explore whether the author's analysis can be extended to a linguistic phenomenon that is not covered in the book.

Superiority effects have triggered several theoretical proposals in the his-

tory of generative grammar. The effects are exemplified in (7).

- (7) a. I wonder who bought what.
 b. *I wonder what who bought.

The unacceptability of (7b) contrasts sharply with the acceptability of the example (8a), which is pointed out by Lasnik and Saito (1992):

- (8) a. Who wonders what who bought?
 b. for which x , x is a person, x wonders for which z , z is a thing, and for which y , y is a person, y bought z
 c. for which x , x is a person, and for which y , y is a person, x wonders for which z , z is a thing, y bought z

The example is unacceptable if *who* in the embedded clause takes the embedded scope while it is acceptable if the *wh*-phrase in question is interpreted as taking the matrix scope; that is, (8a) is unacceptable under the interpretation (8b) but it allows the interpretation (8c). The acceptability of (8a) with the interpretation (8c) poses a serious problem for any approach that attributes the unacceptability of (7b) to the failure of the shortest move of *who* (whether the requirement is implemented as a condition on movement or a property of Attract).

The INP makes it possible to provide a new account of the contrast in question. Although the INP is intended to deal with referential identity, let us extend it and assume that the INP governs interpretation on scopal identity. Pronouns referentially depend on their antecedents in the sense that their referents are determined by their antecedents. The scope of *wh*-in-situ cannot be determined by the *wh*-in-situ; rather, the scope is determined by another *wh*-phrase in an operator position. In this sense, *wh*-in-situ depends on another *wh*-phrase in fixing its scope.

If we assume that *wh*-in-situ scopally depends on the argument position associated with another *wh*-phrase in an operator position, then (8a) with the interpretation (8c) falls under the same class as (7a), and (8a) with the interpretation (8b) belongs to the same class as (7b). In (7a), the *wh*-in-situ depends on the moved *wh*-phrase and the former does not c-command the trace of the

latter. The same holds true for (8a) with the interpretation (8c) since the *wh*-in-situ does not c-command the trace in the matrix subject position. In (7b), on the other hand, the *wh*-in-situ c-commands the trace of the *wh*-phrase that it depends on. The unacceptability of (8a) with the interpretation (8b) is explained in the same way since the *wh*-in-situ c-commands the trace of *what* in the embedded object position. Consequently, the INP correctly predicts that (7a) and (8a) with the interpretation (8c) should be acceptable and that (7b) and (8a) with the interpretation (8b) should be excluded.⁸

One of the obvious questions to ask is why a *wh*-phrase in situ depends on the argument position of another *wh*-phrase in fixing its scope instead of depending on a *wh*-phrase in an operator position. In order to answer the question, let us suppose that a *wh*-word is composed of an operator portion and a pronominal portion (see Tsai (1994) and references cited there for a similar view on the composition of *wh*-words). Let us further assume that the operator portion remains in the specifier of CP and the pronominal portion occupies the associated argument position at LF (see Chomsky's (1995) preference principle for a similar idea about the LF representation of a *wh*-phrase). The *wh*-question in (9a) is then has something like (9b) as its LF representation.

(9) a. Who *t* left?

b. [_{CP} [_{DP} for which *x*] [_{TP} [_{DP} *x*, *x* is a person] left]]

A *wh*-phrase in situ, on the other hand, contains both the operator portion and pronominal portion. The embedded clause of (7a) has the following LF representation.

(10) [_{CP} [_{DP1} for which *x*] [_{TP} [_{DP1} *x*, *x* is a person] bought [_{DP2} for which *y*,
y is a thing]]]

The operator portion of DP₂ cannot be deleted and bound by the operator portion of DP₁ in the specifier of CP because that would result in an operator-variable relation restricted by two incompatible restrictions (i.e., “is a person” and “is a thing”). In other words, the operator cannot directly bind the *wh*-in-situ in (10). If this consideration is on the right track, the scope of the *wh*-in-situ is not fixed by the operator; rather, it is decided by another vari-

able that it does not c-command. Putting it differently, the scope of *wh*-in-situ is not determined by being bound by another *wh*-phrase in an operator position, but *wh*-in-situ is interpreted as “having the same scope as” another variable which is bound by the associated *wh*-phrase in an operator position.

Needless to say, there are a lot of questions to be answered in pursuing the possibility of assimilating scopal identity with referential identity under the INP approach. At present, it is not clear whether the extension of the INP in this direction is actually feasible. The extension, however, has a possibility of solving one of the remaining problems in the study of movement, and seems to the reviewer to be worth pursuing.

4. Concluding Remarks

The book offers an extensive and careful observation about bound reading phenomena. The proposed analysis not only provides a new account for the relevant phenomena but also stimulates a further extension toward a wider range of linguistic phenomena. The book also provides a good summary of the relevant studies over the past 25 years or so. Anyone who is interested in the bound reading phenomena will surely benefit from the book.

Notes

¹ The author credits Evans (1980) and Higginbotham (1983) for initiating the c-command prohibition approach. The c-command licensing approach is defended by Reinhart (1983a, b) and Grodzinsky and Reinhart (1993), for example.

² The introduction to be made in section 1 and section 2 is much simplified for expository convenience. For detailed and exact discussion concerning these sections, see chapter 2 and chapter 3 of the book.

³ In (3), asterisks indicate that the INP prohibits dependency between italicized terms; hence, they do not reflect actual acceptability of the examples.

⁴ The example (3e) involves dependency across a sentence boundary. The

author assumes that the INP is applied to extrasentential dependency as well as intrasentential dependency. See section 2.1 of the book for discussion of extrasentential dependency.

⁵ As is evident from the definition in (4), the extended INP has a striking resemblance to the INP. See section 2.5 of the book for discussion of the relation between the INP and the extended INP.

⁶ In (5) and (6), asterisks indicate unavailability of bound reading; that is, (5b) and (6b) are unacceptable if the pronouns are interpreted as being bound by the *wh*-operators.

⁷ The author also examines other types of crossover effects known as weakest crossover (chapter 3) and secondary crossover (chapter 4).

⁸ Hornstein (2001) also argues that superiority effects should be reduced to WCO effects.

References

- Chomsky, Noam. 1981. *Lectures on government and binding*. Dordrecht: Foris.
- Chomsky, Noam. 1995 *The Minimalist Program*, Cambridge, Mass.: MIT Press.
- Evans, Gareth. 1980. Pronouns. *Linguistic Inquiry* 11: 337–362.
- Grodzinsky, Yosef, and Tanya Reinhart. 1993. The innateness of binding and coreference. *Linguistic Inquiry* 24: 69–102.
- Higginbotham, James. 1983. Logical Form, binding, and nominals. *Linguistic Inquiry* 14: 395–420.
- Higginbotham, James. 1985. On semantics. *Linguistic Inquiry* 16: 547–593.
- Hornstein, Norbert. 2001. *Move! A minimalist theory of construal*. Oxford: Blackwell.
- Kayne, Richard S. 2002. Pronouns and their antecedents. In *Derivation and explanation in the Minimalist Program*, ed. Samuel David Epstein and T. Daniel Seely, 133–183. Oxford: Blackwell.
- Koopman, Hilda, and Dominique Sportiche. 1983. Variables and the Bijection Principle. *The Linguistic Review* 2: 139–160.
- Lasnik, Howard, and Mamoru Saito. 1992. *Move α : Conditions on its application and output*. Cambridge, Mass.: MIT Press.
- Reinhart, Tanya. 1983a. *Anaphora and semantic interpretation*. Chicago: University of Chicago Press.
- Reinhart, Tanya. 1983b. Coreference and bound anaphora: A restatement of the anaphora questions. *Linguistics and Philosophy* 6: 47–88.

- Safir, Ken. 1984. Multiple variable binding. *Linguistic Inquiry* 15: 603–638.
- Safir, Ken. 1986. Relative clauses in a theory of binding and levels. *Linguistic Inquiry* 17: 663–689.
- Tsai, W. -T. Dylan. 1994 On economizing the theory of A-bar dependencies, Doctoral dissertation, MIT, Cambridge, Mass.