Thomas S. Stroik. *Locality in minimalist syntax*. In the series *Linguistic Inquiry Monograph 51*. Cambridge, MA/London: MIT Press. Pp. x + 149. US \$32.00 (softcover).

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In *Locality in minimalist syntax*, Stroik proposes that displacement in language results from Remerge of Syntactic Objects (SO) that contain unchecked features. Stroik attempts to demonstrate how his theory accounts for a variety of recalcitrant data, primarily involving wh-constructions. The book has some shortcomings with respect to organization, for example, (e.g., repetition of essentially the same analyses in different chapters, discussion of a single topic spread across different chapters, etc. There are also enough typos to occasionally create confusion. However, this book presents several interesting proposals regarding the structure of the human language faculty that are worthy of examination.

In chapter 1, "Optimal design for human language", Stroik discusses problems with Minimalist Program (MP) (Chomsky 1995) accounts of displacement (e.g., reliance on an EPP feature, reliance on economy conditions, etc.), presents his new proposal, SURVIVE, and shows how it overcomes these problems. SURVIVE is presented as a purely derivational theory (Brody 2002), since once elements are Merged into a derivation they can no longer be accessed by further operations. Stroik accomplishes this feat via the proposal that an SO can be copied multiple times from a Numeration. Another proposed advantage of SURVIVE is that it is crash-proof (Frampton and Gutmann 2002), since ill-formed constructions are underiveable.

In chapter 2, "The SURVIVE Principle", Stroik elaborates on the nature of SURVIVE (1) while attempting to demonstrate the advantages of this proposal over feature-driven "Greed-based" and "Attract-based" (p. 37) movement analyses of the MP.

## (1) The SURVIVE Principle

If Y is an SO in an XP headed by X and Y has an unchecked feature incompatible with (i.e., cannot potentially be checked by) the features of X, Y must Remerge from the WorkBench with the next head Z that c-commands XP. (p. 45)

According to SURVIVE, Lexical Items originate in a Numeration and are merged

together in a workspace. The WorkBench is "the union of the WS [worskpace] and the Numeration (p. 44)." An SO remains in the WorkBench, from where it can be copied and remerged multiple times into the derivational workspace until all of its features are checked. If an SO has any features that are not compatible with a head that it is Merged with, then the SO "survives" and must Remerge with the next head that is Merged into the derivation. For example, in (2), SURVIVE propels the subject DP *they both* to repeatedly Remerge from its base position with all subsequent heads until it arrives in its final position where all of its features are checked. The possibility of quantifier floating of *both* is given as evidence for this proposal.

(2) They (both) were (both) expected (both) to (both) have (both) been (both) elected to the Senate. (p. 39)

An important component of SURVIVE is that if an SO is not incompatible with a local head, where feature compatibility is "a could-potentially-be-checked-by relation" (p. 37), the SO cannot undergo Remerge. In (3a), with the simplified derivation in (3b), both wh-phrases undergo Remerge with every higher head until they arrive in the embedded C. C contains feature-checking features that check the wh-features of *where*. These feature-checking features on C then become deactivated; however, even though these feature-checking features are deactivated, they are not incompatible with *what*, since they are the type of features that check wh-features. As a result, *what* is not repelled and the derivation stalls.

(3) a. \*Where did Chris tell you what to put (p. 41)

b. [CP] what [Where [C] [TP] to [VP] put [What] [Where] [Where] [Where]

Stroik goes on to explain how SURVIVE accounts for Super-Raising and some multiple-wh-constructions.

In chapter 3, "Some *Wh* puzzles", Stroik demonstrates how SURVIVE accounts for a variety of wh-construction data, primarily but not exclusively in English. Stroik relies heavily on features of a wh-phrase (4), which he claims are subfeatures of a [WH] feature.

- (4) a. [OP]: operator feature
  - b. [REF]: referential feature
  - c. [REF/WH]: "reference-dependent-on-wh feature" (p. 72)
  - d. [DISC]: discourse feature

These wh-subfeatures play an important role in the derivations of wh-questions such as

(5a), as shown in (5b).

(5) a. Who read what (p. 72)

b. [who<sub>[OP, REF]</sub> [what<sub>[REF/WH]</sub> [C [who<sub>[OP, REF]</sub> [what<sub>[REF/WH]</sub> [T [who<sub>[OP, REF]</sub> [what<sub>[REF/WH]</sub> [v [read what<sub>[REF/WH]</sub>]]]]]]]]]]

The in-situ *what* is base-generated with a [REF/WH] feature, a dependent feature that requires checking by a [REF] feature. The subject *who* is base generated with [OP] and [REF] features. SURVIVE propels both *what* and *who* to undergo Remerge with all subsequent heads until they arrive in the matrix CP. Once in the CP, the [OP] and [REF] features of *who* are checked by matching feature-checking features of C. At this point, the dependent feature [REF/WH] of *what* is checked in C by the [REF] feature of the c-commanding *who*, thus resulting in the referentiality of *what* being dependent on the referentiality of *who*; this gives (5a) a pair-list interpretation. It is crucial that *who* ends up c-commanding *what* within the CP. This is achieved via the proposal that when multiple SOs undergo Remerge, the Remerge order reflects the initial Merge order. The wh-subfeature [DISC] (4d) is found in echo questions, such as (6), and does not require checking from another element in the derivation, thereby accounting for the virtually unconstrained distribution of wh-phrases in echo questions.

## (6) Pat likes books that criticize who (p. 63)

Stroik extends his analysis to account for: intervention effects that arise when a wh-phrase is base generated in a larger referential phrase (a wh-phrase with a [REF/WH] feature becomes stranded in a specifier of a phrase with a referential head), Superiority effects (a [REF/WH] feature of a wh-phrase that crosses over a higher wh-phrase cannot be checked), *that*-trace effects (a wh-phrasal subject becomes stranded in a CP, headed by *that*, with matching subject agreement features), and multiple wh-fronting in Slavic languages (movement of all wh-phrases is driven by an operator and/or focus feature).

In chapter 4, "Conclusion", Stroik restates some problems with current MP theories of movement and emphasizes that SURVIVE, which has "only local, feature-driven Merge-type operations" is "a radically simple design for the computational system of HL [human language]" (p. 124). In addition, Stroik briefly addresses how his theory can be extended to account for other phenomena such as head movement.

One of the most interesting components of this book is the author's attempt, via SURVIVE, to develop a purely derivational theory of displacement in which there is

only local Merge and elements internal to the derivation are no longer accessible. However, this simplification of the grammar adds complexity to other components of the grammar. First, SURVIVE necessarily requires that, in many cases, multiple copies of SOs appear in a derivation. Consider the case of long distance wh-movement, in which a wh-phrase must be Remerged with every single head between its base position and its final landing site. Also, consider verb agreement in English, in which a verb shows agreement with T, or consider quirky Case in Icelandic, in which T shows agreement with an object. SURVIVE would require the agreeing element (a verb, a DP, etc.) to be Remerged until it arrives in T (or some other final landing site), even though it is pronounced in a lower position, and the pronounced form is dependent on this agreement relation. How is the pronounced form of a lower copy of an SO, which is dependent on an Agree relation with a higher element in a derivation, accounted for in a purely derivational theory in which there is no access to already Merged elements? Furthermore, when multiple copies of an SO are present in a derivation, questions arise with respect to how the grammar determines which copy (or possibly copies) to pronounce. Stroik states that "the sensorimotor interface pronounces elements where the relevant morphophonetic features are checked (p. 133)." What is the nature of these morphophonetic features? In addition, in order to enable SURVIVE to account for wh-constructions, Stroik relies on a fairly complex system of features. For example, in (7), who has a [DISC] feature (see (6) above), and in (8), the same wh-phrase who has [OP] and [REF] features and what has a [REF/WH] feature (see (5)).

- (7) Pat likes books that criticize who<sub>[DISC]</sub>
- (8) Who<sub>[OP, REF]</sub> read what<sub>[REF/WH]</sub>

Are these extra complexities (the appearance of numerous copies, the need to determine which copy to pronounce, a complex feature system, etc.) worthy of the theoretical advantages of SURVIVE? Investigation of SURVIVE, with respect to these and other issues, is certainly a worthwhile avenue of research.

Despite its short length, this book manages to cover many topics, account for a variety of troublesome syntactic data that have been debated for years, and raise a number of interesting issues. This is an intriguing book that should be of interest to syntacticians working on displacement phenomena, as well as to those who are interested in the development of an "optimal" Minimalist theory of syntax.

## REFERENCES

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