Agreement beyond phi. By Shigeru Miyagawa. (Linguistic Inquiry monograph 75.) Cambridge, MA: MIT Press, 2017. Pp. 223. ISBN 9780262035880. $35.

Reviewed by Elena Anagnostopoulou, *University of Crete*

In this monograph, Shigeru Miyagawa expands, sharpens, and further substantiates the theory of clausal operations argued for in his 2010 monograph *Why agree? Why move? Unifying agreement-based and discourse-configurational languages*, exploring its consequences in many new domains of syntax and the syntax-discourse interface. Based on Chomsky's (2001) uniformity principle, Miyagawa 2010 argued that movement operations across languages are governed by strong uniformity, which dictates that the same set of grammatical features occurs and is overtly manifested in all languages. The current monograph defends a version of strong uniformity, according to which phi-features (φ-features) and discourse-configurational features (δ-features) all start out on the phase head C and may or may not be inherited by T as a parametric option (cf. Chomsky 2005, 2007). The different combinatorial possibilities lead to four basic types of languages, depending on where the different sets of grammatical features are hosted: (I) φ-feature on C, δ-feature on T (Japanese); (II) δ-feature on C, φ-feature on T (English); (III) both φ-feature and δ-feature on T (Spanish); (IV) both φ-feature and δ-feature on C (Dinka). In this simple and elegant typology, the variation we find across languages depends on how φ-features and δ-features interact with each other and with items in their local domain, the C-domain and the T-domain.

The book investigates a wealth of empirical phenomena in many typologically unrelated languages and arrives at a set of surprising new generalizations, which are accounted for in terms of the strong uniformity hypothesis, thus shedding light on the interaction between the agreement systems and the discourse-configurational properties of languages. It is argued that politeness markers in Japanese, allocutive agreement in Basque, sloppy interpretations of null subjects in Japanese, Chinese, Malayalam, and Spanish, 'why' and 'how come' in Japanese, Chinese, English, and Spanish, and focus in *ga*/*no* conversion in Japanese can be understood only if the locus of φ-features and δ-features in the clause is taken into account. The book thus initiates an exciting new research program in the study of formal syntax.

Ch. 1 introduces the basic theory argued for in the book: strong uniformity, the predicted typology of four language categories, and some preliminary empirical evidence for the unconventional claims that δ-features reside in T in Japanese and Spanish, while φ-features reside in C in Dinka (Nilo-Saharan; van Urk 2015). Chs. 2–5 are case studies illustrating how the typology developed in Ch. 1 can be fruitfully exploited to account for a range of phenomena that do not seem to be connected to one another. Ch. 6 concludes by summarizing the main findings of the monograph.

Ch. 2 argues that, contrary to what is assumed in the literature, Japanese is not a language lacking agreement; rather, it is a language where φ-feature agreement resides in C, being manifested as the politeness marker *-mas-*. Unlike, for example, French politeness agreement, which is sensitive to the clausal subject and can occur in all kinds of embedded clauses, the distribution of politeness marking in Japanese is sensitive to properties of the addressee and is limited to environments matching the notion of the Root (Emonds 1969). M argues that the differences between the two language types can be accounted for if φ-features are hosted in C in Japanese and in T in French, as predicted by the strong uniformity typology. He furthermore analyzes Japanese politeness marking as an analogue to allocutive agreement in Basque dialects. Basque allocutive agreement displays sensitivity to properties of the addressee (e.g. gender, status) and is limited to Root environments, just like Japanese politeness markers. M analyzes them as agreement in C, adopting Speas and Tenny's (2003) speech act projection (SAP). SAP can only be present when C is unselected, thus providing a straightforward explanation for the fact that this type of agreement is limited to Root environments.

Ch. 3 investigates pro-drop and agreement. The empirical question addressed concerns the nature and availability of sloppy readings of zero subjects in three different types of languages, namely (i) Japanese, (ii) Chinese/Malayalam, and (iii) Spanish. In the literature, there is a debate concerning the proper analysis of empty subjects in Japanese, whether these involve pro-drop, as

originally proposed by Kuroda (1965), or result from argument ellipsis, as argued for by Oku (1998). Oku's argument crucially rests on a generalization according to which Romance pro-drop languages with rich agreement do not allow for sloppy interpretations of null subjects, unlike Japanese, which freely permits sloppy readings and lacks agreement. Oku accounts for this on the basis of the hypothesis that sloppy interpretations are possible only under argument ellipsis, and he proposes that rich agreement blocks argument ellipsis in Romance-type languages. As a first step, M extends OKU'S GENERALIZATION to capture languages like Chinese and Malayalam that lack overt subject agreement, like Japanese, but do not permit sloppy interpretations of null subjects, like Spanish. Drawing on evidence from long-distance binding, he argues that these languages conform with Oku's generalization despite appearances to the contrary. He points out, however, that Oku's generalization is contradicted by languages like Spanish and Greek where sloppy readings for subjects are, in fact, possible under certain conditions. He also presents a large-scale survey of Japanese and Chinese speakers which shows that sloppy interpretations are systematically available in Japanese without context, unlike Chinese where context is required to encourage sloppy interpretations.

These combined results lead to a restatement of Oku's generalization. The right question to ask, according to M, is why pro-drop languages like Japanese freely permit sloppy readings, while this is possible only under the right contextual conditions in Chinese and Spanish/Greek. M proposes that the key to an answer to this question is provided by Oikonomou's (2017) proposal that sloppy readings are the result of an E-type interpretation of pro, which gives rise to indefinite readings. The Topic systems of languages in connection to properties of pro determine the conditions under which E-type interpretations may arise. In rich agreement languages, agreement leads to topicalization of pro (interpreted as movement of pro to T hosting δ-features; rich agreement languages are Tφ/δ), which is incompatible with E-type interpretations. Furthermore, due to its referential/φ-deficiency, Chinese pro can pick a referent outside the sentence only when it is topicalized to C hosting δ-features (Chinese is Cδ-Tφ), once again rendering E-type interpretations and the concomitant sloppy readings difficult. By contrast, pro is allowed to remain *v*P-internal in Japanese (a Cφ-Tδ agreement-less language), and therefore E-type/sloppy readings are freely available.

Ch. 4 is an investigation of 'why' from the perspective of the debate between movement and external-merge (EM) analyses of *why*-questions. While many languages provide robust evidence that WH-adjuncts like *why* may be externally merged in the Spec,CP position and WH-adjuncts like *how come* must be externally merged in that position, Japanese has nothing comparable to WH-adjuncts like *how come* in English that are obligatorily externally merged in the Spec,CP position. The question that arises is what explains this gap in the paradigm of Japanese, as opposed to English, Chinese, and Spanish. M proposes that this difference between Japanese and Chinese/English-type languages relates to the fact that the EM option requires focus in C. Being a discourse feature, focus never resides in C in category I Cφ-Tδ languages like Japanese, while it is hosted in C in category II Cδ-Tφ languages like Chinese and English, explaining the absence of *how come*-type questions in the former type of languages and their presence in the latter. Based on a comparative investigation of WH-adjunct questions with respect to ANTI-SUPERIORITY (Saito 1985), ANTI-INTERVENTION EFFECTS (Beck 1996a), and ANTI-PIED-PIPING (Nishigauchi 1990), M argues that Japanese *naze* displays all of the signature properties of movement, while Chinese *zenme* displays all those of base generation. In turn, this entails that the movement vs. base-generation behavior of *why*/*how come* adjuncts cannot be attributed to the WH-in-situ parameter and depends on the position of focus features in the clause. Combining the syntactic analysis of Shlonsky and Soare (2011) with the semantic analysis of Beck (1996b), M offers a syntax for *why*/*naze* in terms of a *because of what*-clause (ReasonP), attached above TP. *Why* phonologically spells out an operator that binds a variable in ReasonP, and it undergoes movement from ReasonP to CP for scope reasons. In languages like Japanese and Korean, which have a δ-feature in T, there is an option to merge 'why' lower than TP and move it across the subject to the Spec,ReasonP position, prior to 'why' moving to Spec,CP. In contrast, there is no topic Tδ position that can host the movement step from a TP-internal position to ReasonP of Chinese *weishenme* 'why'.

Ch. 5 investigates the phenomenon of *ga*/*no* conversion from the perspective of strong uniformity. In Japanese, the subject of a relative clause or a noun complement may be marked either with the nominative -*ga* or with the genitive -*no*. In the first part of the chapter, M argues that *ga*/*no* conversion provides strong evidence for the central thesis of strong uniformity: that all formal features start out in C and are inherited by T. Building on previous work, M argues that the nominative marking occurs in a full CP, while the genitive marking is associated with a TP not selected by C. On the strong uniformity hypothesis, this means that in constructions with a nominative subject, T is fully active; it can license nominative and focus on the subject and can trigger extended projection principle (EPP)-related operations like subject movement to T and object scrambling. By contrast, since T is devoid of features and syntactically inactive in the absence of C, constructions in which the subject bears genitive case show several restrictions. T cannot license nominative case on the subject, which is therefore assigned genitive case by D. Moreover, T cannot EPP-attract the subject, resulting in an adjacency requirement between the *v*P-internal subject and the verb, and cannot EPP-attract the object, resulting in unavailability of scrambling. Most importantly, as shown in 1, a focus element on the subject precludes genitive from occurring on the subject.

(1) Taroo-**dake**-ga/*-no   nonda kusuri
     Taro-only-NOM/*-GEN took   medicine
        'medicine that only Taro took'

This is so because focus requires C, and C is associated with an active T that assigns nominative to the subject. In the second part of the chapter, M argues that focus features on arguments are activated by Case, similarly to φ-features.

The book makes an important contribution to our understanding of theoretical syntax and parameter theory through an in-depth investigation of the interaction between φ-features and δ-features across languages and phenomena. Based on highly complex and intriguing data from several areas of syntax, M makes a convincing case that there is much to be gained if variation is approached from the perspective of strong uniformity. The book offers a systematic typology of C-related and T-related phenomena depending on where φ-features and δ-features are hosted. It highlights the similarities between the agreement/Case systems and the topic/focus systems in natural language and offers a restrictive and conceptually sound theory of the interaction between φ-features and δ-features. It also provides novel tools for comparing related structures in typologically diverse languages, such as the presence, properties, and distribution of politeness agreement; the conditions governing the availability of sloppy readings on null subjects; the syntactic behavior of *why*, *how come*, and *what for why* adjuncts; and the (un)availability of special case and focus marking on subjects in full vs. reduced clausal environments. The book will be a valuable guide to researchers studying these phenomena in all languages and initiates a new research agenda in the investigation of clause structure, agreement, Case, discourse configurationality, and their typology.

REFERENCES

BECK, SIGRID. 1996a. Quantifier structures as barriers for LF movement. *Natural Language Semantics* 4.1–56. DOI: 10.1007/BF00263536.

BECK, SIGRID. 1996b. *Wh-constructions and transparent logical form*. Tübingen: University of Tübingen dissertation.

CHOMSKY, NOAM. 2001. Derivation by phase. *Ken Hale: A life in language*, ed. by Michael Kenstowicz, 1–52. Cambridge, MA: MIT Press.

CHOMSKY, NOAM. 2005. Three factors in language design. *Linguistic Inquiry* 36.1–23. DOI: 10.1162/002438 9052993655.

CHOMSKY, NOAM. 2007. Approaching UG from below. *Interfaces + recursion = language?*, ed. by Uli Sauerland and Hans Martin Gärtner, 1–29. Berlin: Mouton de Gruyter.

EMONDS, JOSEPH. 1969. *Root and structure-preserving transformations*. Cambridge, MA: MIT dissertation.

KURODA, S.-Y. 1965. *Generative grammatical studies in the Japanese language*. Cambridge, MA: MIT dissertation.

MIYAGAWA, SHIGERU. 2010. *Why agree? Why move? Unifying agreement-based and discourse-configura-tional languages*. Cambridge, MA: MIT Press.

NISHIGAUCHI, TAISUKE. 1990. *Quantification in the theory of grammar*. Dordrecht: Kluwer.

OIKONOMOU, DESPINA. 2017. Sloppy *pro* in Greek: An E-type analysis. *Chicago Linguistic Society* 52.

OKU, SATOSHI. 1998. *A theory of selection and reconstruction in the minimalist perspective*. Storrs: University of Connecticut dissertation.

SAITO, MAMORU. 1985. *Some asymmetries in Japanese and their theoretical implications*. Cambridge, MA: MIT dissertation.

SHLONSKY, UR, and GABRIELA SOARE. 2011. Where's 'why'? *Linguistic Inquiry* 42.651–69. DOI: 10.1162/LING_a_00064.

SPEAS, MARGARET, and CAROL TENNY. 2003. Configurational properties of point of view roles. *Asymmetry in grammar*, ed. by Anna Maria Di Sciullo, 315–44. Amsterdam: John Benjamins.

VAN URK, COPPE. 2015. *The syntax of displacement: A Dinka case study*. Cambridge, MA: MIT dissertation.

Department of Philology, Linguistics section
University of Crete
University Campus Gallos
74100 Rethymno, Greece
[elena.anagnostopoulou01@gmail.com]

Semantics, metasemantics, aboutness. By ORI SIMCHEN. Oxford: Oxford University Press, 2017. Pp. xviii, 159. ISBN 9780198792147. $60.

Reviewed by GILA SHER, *University of California, San Diego*

In this book Ori Simchen advocates a PRODUCTIVIST approach, or orientation, to metasemantics, which he contrasts with what he calls the INTERPRETATIONIST approach. The book is divided into six chapters and contains three appendices. The first chapter sets the ground for the book by introducing semantics and metasemantics, the interpretationist and productivist distinction, the major players on both sides of the distinction, and the main problem—indeterminacy—that S will use to adjudicate between the two approaches. It is accompanied by an appendix that compares David Lewis's early and later conceptions of metasemantics. Ch. 2 discusses the problems arising for the interpretationist approach to singular reference by Hilary Putnam's (model-theoretic) indeterminacy argument and is accompanied by two appendices. The first appendix explains the mechanics ('scrambled truth') of Putnam's argument, and the second describes Saul Kripke's extension of the causal-historical productivist theory of reference to mathematical expressions. Ch. 3 is devoted to the role of aboutness in metasemantics. Chs. 4 and 5 introduce two case studies supporting productivism: self-reference and legal interpretation. The concluding chapter returns to indeterminacy, the main issue that stands between productivism and interpretationism.

Metasemantics, as S sees it, is the philosophy of semantics. Semantics assigns semantic values (reference, meaning, truth conditions) to linguistic expressions; metasemantics investigates the principles governing the assignment of semantic values to such expressions. In S's words, '[s]emantics studies the *what* of semantic endowment while metasemantics studies the *how*' (55). Metasemantics investigates how, or in virtue of what, linguistic expressions have the semantic value they have, including the role played by aboutness (our intuitions of what they are about) in determining their semantic values.

S's distinction between productivism and interpretationism centers on who determines the semantic values of linguistic expressions. Interpretationists and productivists approach semantic values from the opposite ends of linguistic discourse. Productivists focus on the 'producers' of linguistic discourse, interpretationists on its 'consumers'. Productivists say that what determines the semantic values of tokens of linguistic discourse—reference and satisfaction of subsentential utterances, truth conditions of sentential utterances—is what its producers intend their words to refer to and what they intend to say about these referents. The producers' intention is a matter of