

## Book Reviews

Stefan Keine, *Case and agreement from fringe to core: A Minimalist approach* (Linguistische Arbeiten 536). Berlin: De Gruyter Mouton, 2010. xii + 228 pages, ISBN 978-3-11-023439-8, EUR 99.95.

Reviewed by PETER M. ARKADIEV, Rossijskaja akademija nauk

The book under review proposes a novel account of an array of facts having to do with non-trivial interaction of case and agreement which are at first glance disparate. These include differential case-marking in modern Indo-Aryan languages, so-called agreement “displacement” in Basque and Itelmen, nominative objects of dative subject verbs in Icelandic, “global” case splits in Umatilla Sahaptin and Kolyma Yukaghir, “pseudo-antipassives” in Nez Perce, “pseudo-incorporation” in Niuean, and other phenomena deviating from what is usually assumed to be the “canonical” encoding of arguments which are problematic for both generative and non-generative theories of case and agreement.

The account proposed in the book is couched in current Minimalist syntax and Distributed Morphology, but is “unorthodox” in several ways.

The most important innovation proposed by Keine concerns the relations between the two operations hitherto considered to be extrinsically ordered: Agree and Impoverishment. The “classic” Distributed Morphology approach assumes that Impoverishment operates in morphology while Agree applies in “narrow” syntax, with all Agree operations thus necessarily applying before all Impoverishment operations. Keine, however, argues that the phenomena treated in the book can be accounted for if Agree and Impoverishment are allowed to interact, in particular if Impoverishment can apply before Agree. This move has important consequences for the whole architecture of grammar in Minimalist theory.

Second, Keine proposes to treat Impoverishment (originally conceived of as a rule deleting arbitrary features or values in the context of other arbitrary features or values) as reflecting independently established feature hierarchies

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proposed in the functional-typological literature and formally implemented in Optimality Theory. This suggests a more restrictive and principled theory of Impoverishment able to make empirically testable predictions about possible and impossible structures.

Third, Keine assumes that case assignment and verb agreement are handled by different applications of Agree (k-Agree and phi-Agree, in his terminology), not as two facets of a single operation. This allows for k-Agree and phi-Agree to be differently ordered in different languages, and for Impoverishment to apply after k-Agree but before phi-Agree or vice versa. Though potentially overgenerating, this proposal seems fully justified in light of the empirical data suggesting that case-marking and agreement are to a large extent independent phenomena.

The book consists of a short Preface, eight chapters (including Introduction and Conclusions), a list of abbreviations, references, and a subject index. In the Introduction Keine states his research questions, outlines the main tenets of his proposal, and gives a short summary of the book.

Chapter 2, “Theoretical background”, provides a useful summary of the theoretical assumptions of the book. These include the basics of Distributed Morphology and the mechanism of Impoverishment, the notions of iconicity, markedness, feature hierarchies, and the concomitant Optimality-Theoretic apparatus, and the operation Agree. With respect to Impoverishment it is claimed that if it “applies to a certain type of argument, it also applies to all less marked types” (p. 20), where “markedness” is understood in terms of such well-known feature hierarchies as person scale, definiteness scale, animacy scale, etc. In relation to the operation Agree the notion of “agreement opacity” is also discussed, whereby “the presence of certain language-specific case features on a determiner phrase (DP) renders this DP incapable of acting as a goal for Agree” (p. 30). It is also assumed, as already mentioned above, following some previous literature, that “case and agreement dependencies are established by separate instances of Agree operations”.

In Chapter 3, “The input to Agree”, Keine starts with the observation that in different languages and in different situations there exist two kinds of input to Agree operations, i.e., morphological case and abstract case, and then proposes a unified account of both phenomena in terms of different interactions of Impoverishment and Agree. The first case is illustrated by Hindi, where verbs only agree with zero-marked DPs; the situation of abstract case feeding agreement is attested in Warlpiri, where subjects (S+A) trigger agreement regardless of being marked ergative (A) or absolutive (S). However, the crucial data comes from Marathi and Punjabi, where verbal agreement requires access to both abstract and morphological case.

The proposal which explains the observed differences in case-agreement interactions assumes that Impoverishment and Agree apply cyclically in the same

module of grammar. Thus Impoverishment can feed or bleed Agree, and modify the content of agreement. The ordering of Impoverishment and Agree operations is not extrinsic, but is claimed to be governed by language-specific constraint interaction. A constraint on the locality of Impoverishment is proposed: “Impoverishment is only sensitive to features within a single syntactic head and its syntactic configuration” (p. 57), which prevents verbal features from directly triggering Impoverishment in nominals and the other way round.

Turning to the empirical application of the proposal, for Hindi it is claimed that both subjects and objects originate as fully specified for insertion of the ergative */-ne/* and accusative */-ko/* case markers. The relevant case (sub)features render these DPs opaque for Agree. However, Impoverishment operations motivated by functional constraint hierarchies delete case features on the object if it is non-human and non-specific, and on the subject in the context of the imperfective aspect. Crucially, these instances of Impoverishment apply before agreement takes place, thus deriving the effect of the sensitivity of Hindi verbal agreement to morphological case. The intricate difference between Hindi on the one hand and Marathi and Punjabi on the other is explained by another Impoverishment operation active in the latter two languages and sensitive to the person of the subject. It prevents 1st and 2nd person subjects from getting ergative case-marking but does not render them accessible for phi-Agree. The analysis is consistent with the assumption that Impoverishment in these languages applies before phi-Agree but after k-Agree.

Chapter 4, “Eccentric agreement”, extends the analysis to the apparently very different kind of phenomenon, i.e., so-called “ergative displacement” and “dative displacement” in Basque and Itelmen, whereby markers canonically showing agreement with the absolutive agree instead with an ergative or a dative controller in some specific constructions. It is argued that agreement with the “wrong” controller becomes possible when Impoverishment operations delete phi-features and thus render the “canonical” controller unavailable for Agree. In particular, both in Basque and in Itelmen person features are deleted from 3rd person objects, thus bleeding agreement. In addition, in Basque the [+subject] feature is impoverished in the context of the non-present tense, in compliance with a universal hierarchy of tense, making the subject available for agreement. Similarly, “dative displacement” attested in various languages (cf. “secundative indexing” of Haspelmath 2005) is treated as resulting from the Impoverishment rule deleting the [+oblique] feature, which otherwise renders the indirect object opaque for phi-Agree, in the context of certain other features of that DP. Keine’s hierarchy-driven analysis correctly captures the crosslinguistic tendency for “dative displacement” to obey the person/topicality scale “1 > 2 > 3.topical > 3.non-topical”: “if a language allows agreement with a dative having a certain property” on this

scale, “then it allows agreement with all datives having properties on its left” (p. 98).<sup>1</sup>

In addition, Keine argues that his analysis presents an essentially unified account of both “eccentric agreement” in Basque and Itelmen and tense-aspect split ergativity in Hindi and other languages. The difference between the two lies in the fact that in Hindi Impoverishment affects both case and agreement, whereas in Basque only agreement is modified. This is claimed to be due to the feature content of case markers in these languages: in Hindi, the ergative /-ne/ is specified for [+subject] and does not appear when this feature is impoverished on the DP, whereas the Basque ergative case marker /-k/, as Keine argues on independent grounds, does not contain this feature, so its deletion does not affect the surface case-marking of the subject. The two languages differ also in the conditions on phi-opaqueness. Thus the difference between two phenomena which on the surface do not seem to have much in common boils down to language-particular factors affecting identical general mechanisms of scale-driven Impoverishment interacting with Agree.

In Chapter 5, “Icelandic nominative objects”, Keine shows how his analysis can explain case-marking and agreement in the Icelandic constructions with dative subjects and nominative objects. The following facts are accounted for: (i) that assignment of dative to the subjects requires the nominative on the object; (ii) that nominative objects do not behave syntactically like nominative subjects; (iii) that only 3rd person nominative objects trigger verbal agreement, while 1st and 2nd person objects either require default (3rd person singular) agreement or are illicit. These facts are analysed under the assumption that the feature [+governed] relevant for the surface accusative case is impoverished on the verbal head prior to its assignment to the object. Thus, the object appears in the default nominative case but still does not behave as a subject since it is not assigned the [–object] feature. After k-Agree has taken place, further Impoverishment deleting the [–subject] feature from the 3rd person object can apply, rendering the object accessible for phi-Agree. 1st and 2nd person objects with dative subject verbs are thus correctly predicted not to trigger agreement despite their nominative case-marking. Variability in the grammaticality of sentences with non-3rd person nominative objects depends on the availability of default agreement for particular speakers, which is consistent with the fact that person effects on nominative objects are lacking in non-finite configurations showing no agreement at all.

In Chapter 6, “Global case splits”, Keine discusses intriguing situations where the case-marking of one argument DP apparently depends on some

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1. Interestingly, this generalization is apparently lacking in recent typological work on ditransitive constructions such as Haspelmath 2005 and Malchukov et al. 2010.

properties of another argument DP, attested in such languages as Umatilla Sahaptin, Yurok, and Kolyma Yukaghir. In Umatilla Sahaptin the ergative case marker appears only on 3rd person singular subjects and only in the context of 1st or 2nd person object. This at first sight seems to violate the strict head-locality of Impoverishment and vocabulary insertion. However, Keine argues that such data can be accommodated in his analysis under the assumption that first phi-agreement with both arguments creates on the verbal head a feature configuration which then may undergo scale-driven Impoverishment; only then k-agreement assigns either full or impoverished feature matrices to the arguments, thus making it possible for the case-marking on the subject to be sensitive to the person features of the object. Similar logic is shown to work for Yurok, where 1st and 2nd person singular objects are case-marked when a 3rd person subject is present.

The situation in Kolyma Yukaghir is especially complex. Here four case markers (one of them zero) can appear on the object depending both on its own person and definiteness features and on the person features of the subject. Kolyma Yukaghir is different from Yurok and Umatilla Sahaptin in that it does not show any overt object agreement, thus suggesting that only the subject's phi-features are represented in the verbal head prior to k-agreement. The case splits are accounted for under the assumption that phi-agreement with the subject can feed Impoverishment of the case features to be assigned to the object. After k-Agree has operated, further Impoverishment operations, now on the object itself, affect case-marking.

The general typological distinction between "local" and "global" case-splits is argued to result from the ordering of phi-Agree and k-Agree: in languages like Hindi and Basque k-Agree applies first and prevents the features of one DP to affect the feature content of the other DP with the mediation of the verb. By contrast, in languages like Umatilla Sahaptin and Kolyma Yukaghir, phi-Agree applies prior to k-Agree, thus creating environments where features of subject and object can interact. So both types of case split involve the same morphosyntactic mechanisms and constraints, which are just differently ordered.

In Chapter 7, "Σ-Impoverishment", Keine discusses a further possibility of the interaction of Impoverishment and Agree, i.e., the application of Impoverishment before any Agree operations, thus deleting unvalued features. This operation turns out to be necessary for an account of such facts as the so-called "pseudo-antipassive" in Nez Perce and "pseudo-incorporation" in Niuean. In Nez Perce transitive verbs appear in two kinds of structure: the one with the verb showing agreement with subject and object, both of which receive overt case-marking, and the other (the Pseudo-Antipassive construction), where neither subject nor object are case-marked, and verb agreement follows the intransitive pattern as if the object were not there at all. Keine proposes to treat these facts as involving so-called "Σ-Impoverishment", i.e., hierar-

chically conditioned deletion of unvalued case, person, and number features (which Keine calls “ $\Sigma$ -features”) from the object DP, which makes it invisible for further Agree operations. This analysis makes an interesting prediction (p. 179): since  $\Sigma$ -impoverished DPs do not participate in Agree operations, they must receive no case-marking at all even in those languages where there are no zero case-markers. This is borne out in the case of Pseudo-Incorporation in Niuean, where non-specific objects appear without case markers, while all other kinds of DPs are overtly case-marked. In a similar vein Keine analyses the construction with indefinite objects in Selayarese, where only verbal agreement is affected by  $\Sigma$ -Impoverishment. Finally, the analysis in terms of  $\Sigma$ -Impoverishment is extended to “canonical” antipassives (involving special morphological marking on the verb and oblique marking of the object, as in West Greenlandic). It is claimed that here Impoverishment affects not just the  $\Sigma$ -features of the object, but all its features so that it is not realized phonologically at all, and can be subsequently bound by an oblique adjunct DP. A common trait of all these cases is that  $\Sigma$ -Impoverishment applies to “canonical” objects (low on definiteness/topicality scales) before any Agree operations have taken place.

The last chapter, “Concluding remarks”, summarizes the main results of the book and offers a brief discussion of such problems as the module of grammar where Agree and Impoverishment apply (i.e., syntax vs. morphology) and the role of markedness scales and functional motivation, of Optimality Theory and of Impoverishment in grammar.

I consider Stefan Keine’s book an important contribution to the generative study of case and agreement, as well as to the more general problems pertaining to the architecture and mechanisms of grammar. It offers a highly appealing, technically simple, and conceptually uniform account of a number of apparently disparate phenomena from languages as diverse as Icelandic, Hindi, and Nez Perce, many of which have been poorly understood before. I think that the main conceptual innovation of this book, namely the claim that Impoverishment and Agree interact in various ways in the same module of grammar, is a welcome improvement of the architecture of grammar assumed in Minimalism. It not only facilitates a unified account of the facts discussed in the book, but also makes a number of interesting empirical predictions and opens a vast perspective of possible potentially valid analyses of other kinds of data.

Besides that, I would like to praise the author for explicitly and convincingly showing that a generative apparatus can easily accommodate and benefit from such functionalist concepts as markedness scales, feature hierarchies, and iconicity. Although these notions have been employed in generative theorizing at least since the early days of Optimality Theory, the plea for a “functional motivation” of grammatical operations made by Keine on p. 207 of his book is the strongest one I have ever encountered in the Minimalist literature. I be-

lieve that Keine's approach offers new fields of fruitful interaction between open-minded linguists belonging to both "camps" of theoretical linguistics.

This said, I would like to point out some problems with Keine's approach, as well as to make several minor critical observations.

All the particular analyses of individual cases discussed in the book crucially depend on the *a priori* feature specification of subjects and objects and of case markers. Keine adheres to a decompositional approach to case, whereby individual case values such as "Nominative", "Ergative", "Accusative" are considered bundles of primitive features, such as [ $\pm$ governed], [ $\pm$ subject], [ $\pm$ oblique]. The presence of these features, for instance, makes DPs opaque for phi-Agreement; precisely these features get deleted when scale-driven Impoverishment applies. In several places of the book (e.g., with respect to Hindi vs. Nepali on pp. 105–106, and with respect to Basque vs. Hindi on pp. 100–101) Keine argues that apparently similar case markers such as ergative in fact show different feature specifications. This move is needed to account for the differing behaviour of these markers with respect to Impoverishment and Agree operations. Although in these particular cases Keine's proposals seem independently justified, I see here a potential for overgeneration and circularity, since virtually ad hoc feature specifications can always be assigned to case values and case markers in order for the analysis to work correctly. On the empirical side, I consider potentially problematic the analysis of Hindi facts, since it does not seem to be straightforwardly extendible to the data from Iranian languages discussed for instance by Haig (2008) or Stilo (2009). These languages show patterns of case-marking and agreement more or less similar to Hindi, and the most important difference is that the Iranian languages employ the same case marker both for "non-canonical" subjects (in the past tense) and for "non-canonical" (animate/definite) objects. Thus an entirely different feature specification for these "oblique" case markers is needed, and it is not obvious what a unified analysis of both Indo-Aryan and Iranian data could look like.

Another point concerns Keine's handling of the "functional" notions of iconicity, markedness, and feature hierarchy. First of all, Keine seems to be ignorant of recent debates on the very validity of these notions in such works as Haspelmath 2006 on markedness, Haspelmath 2009 on iconicity, and Bickel 2008 and Bickel & Witzlack-Makarevich 2008 on feature hierarchies. It is surprising that his definition of iconicity on p. 15 does not contain references to the influential functional work by Haiman (1980 and subsequent work). Second, and more importantly, Keine's argumentation is based on the rather controversial assumption that "canonical" objects which may undergo scale-driven feature Impoverishment are inanimate or indefinite or non-specific. This assumption, indeed held by some functional linguists after work by Comrie (1979) and introduced into the formalist paradigm by Aissen (2003), has recently been strongly criticized by Næss (2004, 2007). The main problem with the assump-

tion that less prominent objects are canonical lies in the fact, actually discussed in Chapter 7 of the book, that such objects often do not behave as syntactic objects at all. For instance, they may trigger the appearance of an intransitive construction, which Keine captures by his  $\Sigma$ -Impoverishment. It seems highly eccentric, in my opinion, to treat those objects as canonical whose presence requires intransitive (i.e., subject-only) morphosyntax (p. 165), let alone those which can be impoverished to such a degree as not to appear in surface syntax at all (p. 196).

Returning to the problems with feature specifications, I do not see any independent evidence for postulating absolutive and ergative cases for Itelmen (p. 85); since Itelmen does not overtly case-mark subjects and direct objects in the first place, these case values are as vacuous and ad hoc as, say, nominative and absolutive. I find the assumption that Tauya verbs exhibit “abstract agreement” in animacy with their objects (p. 159, Footnote 17) unattractive and running counter the empirically-oriented trend of the book. That the theory allows “abstract agreement” between a verbal head and its arguments in arbitrary features leads to overgeneration and a decrease in explanatory adequacy; such stipulative moves are definitely to be avoided.

I would like to observe that Keine apparently did not notice an interesting empirical prediction following from his analysis of the “global” case splits in Chapter 7. If such case splits, where the marking of one DP depends on the features of the other DP, always result from features of subject and object being transferred to the verbal head via phi-Agree before k-Agree assigns case features to these DPs, then they are predicted to be impossible in languages with no overt verbal agreement whatsoever (unless such unjustified mechanisms as “abstract agreement” are called into play). It would be extremely interesting and fruitful to test this prediction against crosslinguistic data.

It is not very clear from the discussion of Nez Perce in Section 7.1 which features are triggering the “Pseudo-Antipassive” construction. In particular, it is surprising that in (19b) on p. 175 this construction is translated with the use of a definite article, which contradicts the claim that non-specific objects appear in this construction. On p. 177 it is proposed that in Nez Perce ditransitives the direct object receives a special “dative” case which is realized morphologically as zero. It is not spelled out, however, which feature specification this case value has and how its being zero-marked conforms to the assumptions about markedness and iconicity held throughout the book.

There are not many typos in the book. However, I would like to mention one which seems to be particularly misleading: on p. 206 “marked” is written instead of “unmarked”, which contradicts a similar statement on p. 19.

To conclude, in spite of several problematic issues and inaccuracies which I have mentioned above, I consider Stefan Keine’s book a very valuable and important contribution to the crosslinguistic study of case and agreement, as



well as to the theorizing about the architecture of grammar in Minimalist theory. I think that reading this book might be rewarding not only for those who approach language from the Minimalist position, but also for those typologically and functionally oriented linguists who are open-minded enough to try to understand the goals and methods of the generative enterprise and to acknowledge its insights. I would also like to advise the author to try to considerably extend the empirical base of his future work, providing analyses of data from even more languages, thus testing the predictions and explanatory force of his theory.<sup>2</sup>

*Correspondence address:* Institut slavjanovedenija, Rossijskaja akademija nauk, Leninskij prospekt 32A, 119334 Moskva, Russian Federation; e-mail: peterarkadiev@yandex.ru

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2. A different version of this review was published on the LINGUIST List, issue # 22.2151 on 20 May 2011.