

isolation; a consistent overarching architecture of grammar must be a primary concern.

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Ángel J. Gallego, *Phase theory* (Linguistik Aktuell/Linguistics Today 152). Amsterdam & Philadelphia, PA: John Benjamins, 2010. Pp. xii + 365.

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*Phase theory* is a minimally revised version of the author’s doctoral dissertation (Gallego 2007), whose title, *Phase theory and parametric variation*, might be a more accurate description of the character of this work. For *Phase theory* is not just about phase theory, rather it shows how phase theory can shed new light on various patterns of cross-linguistic variation. The underlying assumption of this book is that all parametric variation is connected to functional categories, and Ángel J. Gallego attempts to demonstrate that a large degree of variation reduces to the properties of a single functional feature (namely [T], as described in Pesetsky & Torrego 2001, 2004) in conjunction with the processes of Agree and Merge, as standardly understood in current Minimalist theorizing.

The opening chapter of the book, 'The framework: Operations and cyclic architecture', sets the stage by giving a detailed discussion of the two central operations of Minimalist syntax, Merge and Move. The argumentation is heavily based on Chomsky's work in the last decade (Chomsky 2000, 2001, 2004, 2005, 2006, 2007), to the extent that readers conversant with this and related literature might just want to skim through this chapter. For readers less familiar with the Minimalist literature, Gallego's exposition will serve as a good introduction to the Minimalist model.

In Chapter 2, 'Phase theory and phase sliding', Gallego begins his exploration of phases and their interaction with Case, Agreement and Tense features. The model developed here is largely based on Pesetsky & Torrego's (2001, 2004) hypothesis that (nominative) Case is an uninterpretable [T] feature on a Determiner Phrase (DP), which is deleted when the relevant DP enters into an Agree relation with a head carrying an interpretable [T] feature. Gallego extends Pesetsky & Torrego's analysis by assuming that various syntactic categories (namely C, T,  $\nu$ , P and  $T_{O(\text{bject})}$ , with  $T_O$  situated below  $\nu$  and part of the Case-licensing mechanism for objects) bear interpretable [T], thus accounting for the distribution of Case-marked DPs. Interestingly, Gallego argues that this [T] feature and the actual [tense] feature responsible for locating the reference time with respect to the utterance time 'are not the same thing' (102). This raises the non-trivial question of what [T] is exactly, which Gallego does not attempt to answer. Nonetheless, note that the system that he sets up only requires that the categories listed above share one feature, irrespective of its ultimate nature.

Gallego further addresses the question of how 'phase' is to be defined. He proposes a purely morphosyntactic definition, according to which a phase is the locus of uninterpretable features (51) and, by extension, the locus of uninterpretable feature deletion that is part of the process of transfer to the interfaces. Due to this definition, some of the properties of phases standardly mentioned in the literature (for example, phonological and semantic independence) are redefined as consequences rather than triggers of phasehood.

The second part of this chapter deals with a process that Gallego calls 'phase sliding', recasting in Minimalist form the Government and Binding hypothesis that some categories are not barriers inherently but become so by inheritance. The mechanism that causes phase sliding is head movement: if a head containing uninterpretable features moves to the higher head, the associated phase boundary moves with it. In these cases, no new phase boundary is created; instead the existing phase boundary simply appears in a different location than expected. The process is illustrated with  $\nu$ -to-T movement in Romance (and especially Spanish). Gallego's conjecture is that phase sliding, by moving the pertinent phase boundary from  $\nu$  to T, permits a more insightful analysis of the patterns of subject-verb inversion in interrogative clauses than otherwise possible.

The line of investigation pursued in Chapter 2 continues in Chapter 3, ‘Microvariation in null subject languages’, through a study of subjunctive clauses in Romance. As is well known, these clauses differ from their indicative counterparts in several aspects: among others, they extend the binding domain, bear dependent tense (and must therefore be embedded), and have limited fronting possibilities. Gallego proposes that all these properties can be traced to subjunctive T being defective. In the context of this analysis, defectiveness is understood as the inability to assign Case, which is in turn formally modelled as the lack of a valued [T] feature.

The chapter also contains an investigation of object shift in Romance, which Gallego argues is linked to the possibility of fronting to the left periphery. That is, languages that have pervasive movement to the left periphery, such as Spanish, Galician and European Portuguese, also have overt object shift (manifested as verb–object–subject word orders where the object can bind into the subject). Importantly, Gallego argues that the amount of movement that a given language allows is not a random variable but is dependent on the morphological ‘richness’ of the verb system (160), where ‘morphological richness’ is measured by the number of morphologically distinct tenses (periphrastic tenses excluded). The richer the verb system, the more movement operations the language will exhibit; and, vice versa, the more impoverished the verb system, the fewer movement operations the language will exhibit. Note that this is not just a point of cross-linguistic, but also of intra-linguistic variation; specifically, the limited fronting possibilities of Spanish subjunctive clauses, discussed in the first part of this chapter, are linked to the fact that the subjunctive has fewer tense distinctions than the indicative. However, Gallego’s two-way generalization might be too strong, given languages like Japanese and German, which have few tense distinctions but nonetheless copious movement to both the Complementizer Phrase (CP) and *v*P. It might thus be more accurate to adopt a one-way generalization (the richer the verb system, the more movement operations the language will exhibit), akin to the morphosyntactic generalization concerning verb agreement morphology and verb movement to T (Bobaljik 2002). Morphological richness itself is argued to depend on a microparameter, whose setting is (by definition) independent of other language-internal factors.

Finally, Chapter 4, ‘Phases and islands’, tackles extraction out of DPs. Building on work by Boeckx (2003), Gallego proposes that a DP allows subextraction only if its  $\Phi$ -features can Agree with a higher Probe. In turn,  $\Phi$ -agreement requires that the DP in question bear an unvalued [T] feature (although this requirement is later modified to ‘not having a valued [T]’ in order to deal with extraction from complement CPs whose [T] feature has been deleted). Much of the chapter is devoted to testing the adequacy of this hypothesis with different types of moved and unmoved DPs. Gallego devotes special attention to Torrego’s (1985) data involving *wh*-extraction out of a larger *wh*-phrase that has previously moved to an intermediate specifier of

CP. The grammaticality of these examples is unexpected in Gallego's framework because the *wh*-phrase from which subextraction takes place has already entered a  $\Phi$ -agreement relation in the lower clause and therefore ought to be opaque. Gallego proposes that, contrary to standing assumptions, these *wh*-phrases ARE indeed opaque. The apparently subextracted constituent is actually base-generated in its surface position and linked to the gap through an aboutness relation. Thus, Gallego is able to maintain an elegant model of movement and islands that is firmly integrated with the theory of Case and agreement outlined in the previous chapters of the book.

What can the reader expect to learn from Gallego's book? In reading it, I was reminded of a scene in Neal Stephenson's novel *Solomon's Gold*, in which Daniel Waterhouse, an eighteenth-century scholar, talks about the development of natural science during his lifetime. As a youth in the 1660s, he was taught Aristotle's doctrine that tides are caused because it is in the nature of water to be drawn up by the moon, but in the year 1714 every educated person accepts Isaac Newton's explanation in terms of the gravitational pull of celestial objects close to earth. Waterhouse then asks how we can know that this shift in explanation represents a genuine advancement of our understanding. One could easily construct similar discourses when referring to this book. To give but one example: as undergraduates taking Syntax 101, we were taught Chomsky's (1970) hypothesis that verbs and prepositions form a natural class because both carry a categorial [-N] feature, which allows them to assign Case to their complements. In this book, Gallego proposes that the relevant factor is that both T and P bear a valued [T] feature, which enters into an Agree relation with the uninterpretable, unvalued [T] feature of their complement DPs. Is this an improvement of our understanding or does it simply involve a change in terminology? Of course we know that gravity is a better explanation of tides than the Aristotelian properties of water: it has wider empirical coverage, explaining not only tides but also why things fall to the ground, why planets orbit the Sun in specific ways and so on. Similarly, Gallego's proposal has the virtue of attempting to explain a variety of apparently disparate phenomena as consequences from a single underlying property, namely the presence of a [T] feature in its (un)-interpretable/(un)valued versions. In this sense, the analyses articulated in *Phase theory* are not mere rephrasings of old ideas, as an unsympathetic reader might suspect, rather they are part of an attempt to gain a genuinely deeper understanding of how natural language syntax works.

But does Gallego succeed in his attempt? His overall approach is sound (at least from the standpoint of current Minimalism) and his theory is carefully developed. Consequently, success (or failure) must be determined on the basis of how well the theory squares up with the empirical facts. Here the answer is somewhat complicated. As indicated in my summary above, Gallego's model is largely a macroparametric one; that is, a large number of facts about language are claimed to derive from a very small number of

underlying factors. Despite their a priori appeal, macroparametric models have been criticized for their rigidity: the fact that so many properties are tied to a single underlying cause often means that one loses the ability to account for finer points of variation. At times this problem surfaces in *Phase theory*. For instance, in Chapter 2, Gallego tries to explain the pattern of subject–verb inversion in Spanish *wh*-questions as a consequence of verb movement. While the pattern that Gallego describes is more or less the prototypical one for Iberian Spanish (although note that even for Iberian Spanish the judgments are not uniformly agreed upon), no mention is made of the fact that South American varieties exhibit a different pattern. In fact, the complete picture is rather complex, as it depends on both the semantic function of the *wh*-phrase (argumental vs. time/place vs. manner vs. reason) and the dichotomy of root and embedded clauses, with different dialects exhibiting different possibilities (see Baković 1998). Gallego's analysis might account for the Peninsular pattern (with which he is primarily concerned), but readers aware of the whole range of variation might rightly wonder how it can be extended to the South American dialects of Spanish.

One way to counter the rigidity of macroparameters is to combine them with a number of microparameters. Chapter 3 of *Phase theory* is an example of how this can be done. Here Gallego argues that 'richness' of a given language's verbal morphology (as measured by the number of tense distinctions) is determined by a microparameter. If this approach is feasible, it makes possible having both the theoretical parsimony and depth of understanding of a macroparametric approach and the fine-grainedness of a microparametric one. The success of the research programme outlined in Gallego's book will ultimately hang on how well it can combine its underlying macroparametric core with the complexity of dialectal (and idiolectal) variation found in the real world. Despite this caveat, *Phase theory* makes a valuable contribution to the theoretical literature, and Minimalist syntacticians of all levels of expertise will benefit from reading it.

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**Richard S. Kayne**, *Comparisons and contrasts* (Oxford Studies in Comparative Syntax). Oxford: Oxford University Press, 2010. Pp. xvi + 272.

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This volume is a collection of eleven of Richard Kayne's recent articles (presented in order of composition between 2006 and 2010). They deal with micro-parametric variation stemming from the distribution of silent elements (largely within the Determiner Phrase) and potential implications of his anti-symmetry hypothesis (Kayne 1994). The empirical focus is generally Germanic (mainly English) and Romance (mainly French and Italian), but the analyses have wider theoretical implications (especially those given in Chapters 6, 8, 9 and 10). All of the articles have been published elsewhere, as detailed in the acknowledgements (xi). However, as only two of the chapters have appeared as journal articles, those interested in comparative syntax will certainly welcome this volume as an accessible collection of Kayne's recent work.

As always, Kayne focuses on finding connections where none appear to exist and on finding differences where none are apparent. The volume is packed with interesting empirical observations and fresh approaches to fundamental syntactic questions. As space prevents an in-depth discussion of individual articles, I first briefly summarise the eleven chapters and then make some general comments about the main ideas emerging from the volume.