



# Introduction

The Harvard community has made this article openly available. Please share how this access benefits you. Your story matters.

Citation	Chung, Sandra, and Maria Polinsky. 2009. Introduction. Natural Language & Linguistic Theory 27(4): 659-673.
Published Version	doi:10.1007/s11049-009-9076-2
Accessed	February 19, 2015 1:46:32 PM EST
Citable Link	http://nrs.harvard.edu/urn-3:HUL.InstRepos:11878779
Terms of Use	This article was downloaded from Harvard University's DASH repository, and is made available under the terms and conditions applicable to Other Posted Material, as set forth at <a href="http://nrs.harvard.edu/urn-3:HUL.InstRepos:dash.current.terms-of-use#LAA">http://nrs.harvard.edu/urn-3:HUL.InstRepos:dash.current.terms-of-use#LAA</a>

(Article begins on next page)

## Introduction

Sandra Chung · Maria Polinsky

© The Author(s) 2009. This article is published with open access at Springerlink.com

Abstract This introduction surveys the prospects for developing a systematic comparative approach to Austronesian syntax and outlines the benefits of such an approach for syntactic theory. We begin with a brief overview of Austronesian languages, focusing on some typologically unusual aspects of their grammar, and the theoretical explanations that have been proposed for these features. We then survey the articles in the rest of this volume and the theoretical questions they address. A novel feature of this special issue is that each article is followed by a commentary by another Austronesian linguist which engages the same issues from a different perspective. The pairings of article and commentary should give readers a window into the study of Austronesian syntax and its current contributions to linguistic theory.

**Keywords** Austronesian languages · Comparative syntax · External argument · Theoretical syntax · Typology · Verb-initiality · Voice

## 1 Background

The idea for this special issue grew out of a workshop on comparative Austronesian syntax that was held at UC San Diego in October 2006, under the sponsorship of the University of California's Humanities Research Institute, the Department of Linguistics and Division of Social Sciences at UC San Diego, and the Department of Linguistics and Institute for Humanities Research at UC Santa Cruz. The workshop brought together a number of syntacticians who do research on Austronesian

S. Chung (\simeg)

Cowell Academic Services, University of California Santa Cruz, Santa Cruz, CA 95064, USA e-mail: schung@ucsc.edu

M. Polinsky

Department of Linguistics, Harvard University, Cambridge, MA 02138, USA e-mail: polinsky@fas.harvard.edu

Published online: 20 June 2009



languages to pursue two broad goals. The first goal was to assess the current state of theoretically informed research on Austronesian syntax and identify ways in which this research could contribute further to theory construction. The second goal was to facilitate dialogue among researchers who specialize in different Austronesian languages. Our hope was to promote the development of a comparative approach to Austronesian syntax, in which the in-depth investigation of closely related languages and dialects is used to tease apart the universal aspects of linguistic design from the language-particular.

Comparative Austronesian syntax represents an undeniably ambitious goal. The Austronesian language family—roughly 1,200 genetically related languages dispersed over an area encompassing Madagascar, Southeast Asia, Taiwan, and islands of the Pacific—is one of the largest language families in the world, both in terms of number of languages and the number of native speakers of those languages. Unsurprisingly given its size, the family is sociolinguistically diverse: It includes languages spoken by extremely large and extremely small populations, national languages and minority languages, robust thriving languages and languages that are, to one degree or another, endangered. At the same time, linguistic relations among members of the family are close, and transparent enough to have been noticed by some of the first Europeans to explore the Pacific (see, for example, Bellwood 1979; Dahl 1951; Grace 1959, 1961; Zwartjes and Hovdhaugen 2004). The existence of the Austronesian language family was definitively established by Otto Dempwolff in the first half of the twentieth century (Dempwolff 1920, 1934, 1937, 1938). Although many issues of genetic classification within the family remain controversial (see, for example, Blust 1999; Ross 1995), the closeness of linguistic relations, which extends to syntax, suggests to us that the goal of comparative Austronesian syntax is ambitious but achievable.

As a matter of fact, the foundations for research in comparative Austronesian syntax are already very much in place. Certain typologically unusual aspects of syntactic design are known to recur in the different subfamilies of Austronesian: (i) verb-first word order, (ii) voice systems with an unusually high degree of articulation or unusual alignment, (iii) rigid constraints on what can undergo extraction: In many languages it appears that the only DP argument that can be extracted is the subject (i.e., the structurally most prominent DP). Each of these patterns raises significant theoretical issues. Some very early generative discussions of the syntax of Austronesian languages (Chung 1978; Keenan 1972) explored the interaction of subjecthood, voice, and extraction from a comparative perspective. Later research has tended to tackle the issues through the in-depth investigation of just one language (but see Aldridge 2004a, 2004b; Cole and Hermon 2008a; Cole et al. 2008; Guilfoyle et al. 1992; Kikusawa 2002; Klamer 2002; Oda 2005; Otsuka 2005; Sells 2000 for a subset of works that take a comparative approach). We see this research as forming the basis for a more systematic comparison of the grammatical systems of Austronesian languages—a comparison that could vastly enrich the theoretical understanding of the interplay between universal grammar and parametric variation.

We now give an outline of these typically Austronesian aspects of syntactic design, both to give a sense of the larger theoretical issues they raise and to prepare readers for



what they will encounter in the articles in this issue. Our discussion will necessarily be brief; readers who would like more extensive discussion are invited to consult the detailed overview by Gärtner et al. (2006).

#### 2 Verb-first word order

Austronesian languages are head-initial, and many Austronesian languages—including languages spoken at the geographical extremes of the family—are verb-initial. In some of these languages the subject occurs at the right edge of the clause, giving the neutral order Verb Object Other Subject (VOXS); in others the subject occurs immediately after the verb, giving the neutral word order Verb Subject Other (VSOX). The following examples, from Malagasy and Tongan, illustrate these possibilities:

(1) a. Malagasy: VOXS

N-i-vidy ny fiara ho an-dRasoa iRabe. PAST-ACTIVE-buy DET car for OBL-Rasoa Rabe 'Rabe bought a car for Rasoa.'

b. Tongan: VSOX

Na'e manatu'i tamasi'i ʻa faiva kotoa 'e he PAST remember boy movie all ERG DET ABS DET 'aneafi.

yesterday

How is verb-first word order derived? The question can be broken down into two partially independent questions. First, what accounts for the left-edge position of the verb? Second, what accounts for the position of the subject?

With regard to the first question, syntactic research on more familiar, non-Austronesian languages has singled out V-raising or VP-raising as the most likely options. In a V-raising analysis, which has also been applied to verb-initial languages outside Austronesian, the verb raises to a head in the functional layer of the clause, such as T(ense), C(omplementizer), or some other head in the left periphery (see Carnie 1995; Chung and McCloskey 1987; Emonds 1980; Sproat 1985; and others). The subject does not raise to the vicinity of the same head, but remains lower—say, in the specifier of vP. In some languages, crucial evidence for V-raising is supplied by ellipsis. Since the verb's other arguments are also inside vP, it is possible for ellipsis to delete vP, wiping out all the arguments but stranding the verb. This type of ellipsis, which was first documented by McCloskey (1991, 2001) for Irish, argues that at some point in the derivation, the verb's arguments do indeed form a syntactic constituent separate from the verb.

(2) V-raising derivation of verb-first order  $[TP \ V \ [VP \ Subject \ [V] \ V \ Object \ ]]]$ 

<sup>&</sup>lt;sup>1</sup>In other Austronesian languages the neutral word order is SVO or verb-second. As far as we know, no other word order types are attested within the family.



<sup>&#</sup>x27;Yesterday the boy remembered all the movies.'

In a VP-raising analysis, the entire VP raises to the specifier of a head in the functional layer of the clause—for instance, to the specifier of T (see Davies and Dubinsky 2001; Koopman and Szabolcsi 2000; Massam and Smallwood 1997; Rackowski and Travis 2000; and others). VP raising can yield VOXS word order, as shown in (3a). Or, if the object has raised out of VP beforehand, remnant movement of VP yields VSOX word order, as shown in (3b).

- (3) VP-raising derivations of verb-first order
  - a. [TP VP [vP Subject [v' VP]]]
  - b. [TP VP [VP Subject [VP Object [VP V Object ]]]]

Evidence in favor of VP-raising can be supplied by patterns of extraction. Assuming that VP raises to a specifier position and specifiers are islands, the raised VP ought to be an island for further extraction (see e.g., Rackowski and Travis 2000; Chung 2006). Recall that one of the typologically unusual patterns found in Austronesian languages is that extraction of DP arguments is restricted to subjects (we will return to this restriction in Sect. 4). This pattern could be taken to argue that VP's are islands in these languages, and hence clausal word order is indeed derived by VP raising. However, if this is the only evidence for VP islandhood, it is hard to rule out circularity of reasoning: Does the derivation of verbfirst word order account for the subjects-only restriction on extraction, or vice versa? Furthermore, it is possible that in some of these languages VP's are not islands more generally, for instance, if extraction of PP arguments (Sabbagh 2005; Cole and Hermon 2005), or of embedded adjuncts (Chung 2006; Gärtner et al. 2006) is allowed. If so, a different explanation would have to be found for the fact that argument extraction is restricted to subjects. In this issue, the article by Potsdam and the commentary by Hermon address some of these complexities.

By now, there has been enough research on particular Austronesian languages to form the basis for an in-depth comparison of these competing accounts of verbfirst order. Some of these investigations have argued in favor of VP-raising, with or without remnant movement (see e.g., Massam 2001; Rackowski and Travis 2000; Cole and Hermon 2008b). However, others have argued in favor of V-raising (e.g., Custis 2005; Pearce 2002; Sabbagh 2005), or in favor of employing V-raising and VPraising for closely related languages (e.g., Otsuka 2005, who argues that the closely related Tongan and Niuean instantiate the respective analyses). We would like to emphasize here that the mechanisms for deriving verb-first order could well be different in different languages (see papers in Carnie et al. 2005). What is most important, in our opinion, is to identify further structural correlates of V-raising and VP-raising, so that the choice between these analyses is made sharper and more principled. In this collection, the article by Potsdam is a step in that direction. Potsdam's article and the commentaries by Hermon and by Kroeger point to the conclusion that surface similarities among languages do not necessarily come from the same source and so an in-depth investigation of particular grammars is needed.

Some researchers have tried to connect VP-raising to a lack of differentiation among lexical classes (cf. Massam 2005), and to the absence of a syntactic category 'verb' in particular (for the proposals that Austronesian languages lack categorial distinctions, see Broschart 1997; Gil 2004, 2005; Nguyen 1998;



Tchekhoff 1981 and references therein). The core idea is that the poverty of inflectional morphology is not accidental, but crucial to the syntactic design of Austronesian languages: There is no category 'verb', hence no motivation for agreement with T or movement to T. An alternative view is that lexical categories *are* well-developed in Austronesian languages, but there are a fair number of silent inflectional elements. Not surprisingly, Austronesian linguists who study Polynesian languages, which are known for their impoverished morphology, lean toward the former view. Austronesian linguists who study Philippine languages or Malagasy, whose morphology is richer, lean toward the latter view. In this collection, the article by Sabbagh presents several morphosyntactic diagnostics in Tagalog which distinguish verbs from adjectives and unaccusative from unergative predicates.

Turning now to the second question, the position of the subject, the discussion up to this point might seem to suggest that nothing more needs to be said. Assuming that the subject remains in place (or equivalently for our purposes, does not move to the vicinity of the raised V), the V-raising analysis automatically describes the position of the subject in VSOX clauses; the VP-raising analysis automatically describes the position of the subject in VOXS clauses and—if remnant movement is assumed—VSOX clauses as well.

Nonetheless, investigations of clause structure in Austronesian languages have also led to other accounts of the position of the subject. Guilfoyle et al. (1992) handle the VOXS word order of Malagasy and other Austronesian languages by proposing that the subject originates as a right specifier of T. In a different approach, Bauer (1993) deals with the fine detail of VSOX word order in Maori by proposing that one or more complements of the verb can extrapose to the right of the subject. Chung (1998) and Sabbagh (2005) handle the flexible verb-first word order of Chamorro and Tagalog by proposing that the subject can lower to right-adjoin to some projection of V. Lowering is posited to account for the fact that in these languages, the subject can occur immediately to the right of any V head of a coordinate VP, including the V of a right VP conjunct, as is illustrated in (4).

(4) Tagalog: VP coordination and the subject (in bold) bangka] **[babalik**] bawa't ng at ang babae AT.FUT.buy NS boat and AT.FUT.return T each woman Maynila]. sa Manila LOC 'Each woman is going to buy a boat and return to Manila.' (Sabbagh 2005: 41)

It is important to recognize the trade-off between some of these proposals and V(P)-raising: If the subject occupies a right specifier of T or undergoes lowering, there would be no need to appeal to V(P)-raising to derive verb-first word order (although there might well be empirical reasons for wanting to do so). Hopefully, more systematic empirical investigation of word order and the position of the subject in Austronesian languages will lead to a clearer picture of what the parametric options are in this domain.



### 3 Voice

Austronesian languages—in particular, Malagasy, Philippine languages, and Formosan languages—are famous for their highly articulated voice systems. Grammatical descriptions of Philippine languages from the first half of the twentieth century often characterize these systems roughly as follows: In every clause, the verb bears an affix signaling the semantic role of one of the arguments it selects. The DP corresponding to that argument has a special set of morphological and syntactic properties, which identify it as the most prominent DP (often called the 'subject', 'topic', 'trigger', 'pivot', or 'external argument').<sup>2</sup>

Keenan (1972, 1976) recast these systems in terms of a standard (accusative) clause structure with multiple passives, analyzing Malagasy as having three voices—an active and two passives. The labels of the Malagasy clauses in (5) illustrate this typologically unusual arrangement. Note also that English translations in the active seem more appropriate for all of the examples; the passive translations of (5b–c) are given in parentheses.

# (5) Malagasy voices

- a. N-i-vidy ny kadoa ho an-dreni-ny ny zaza.

  PAST-ACTIVE-buy DET gift for OBL-mother-3SG DET child

  'The child bought a gift for his mother.' (active)
- No-vid-in' ny zaza ho an-dreni-ny kadoa. ny PAST-buy-PASSIVE DET child for OBL-mother-3SG DET gift 'The gift, the child bought for his mother.' (passive) ('The gift was bought by the child for his mother.')
- N-ividi-an' ny zaza (nv) kadoa ny PAST-buy-CIRCUMSTANTIAL child DET DET gift DET reni-ny. mother-3sg 'His mother, the child bought a gift for.' (circumstantial passive) ('The mother was bought a gift for by the child.')

Most current research now treats clauses of type (5c) as applicative constructions. But there is sustained, continuing controversy over other aspects of the analysis of these highly articulated systems, most of which can be encapsulated into two simple questions which are as yet unresolved.

The first question is whether all the clause types in (5) are base-generated, or the distinguished DP comes to occupy its structurally prominent position via movement. (The question is particularly acute for the 'passive' in (5b) and the 'passive of applicative' in (5c).) Among those now advocating the base-generation approach is Keenan (2008). Other researchers, however, treat these constructions as derived by movement (see, for instance, Pearson 2001, 2005).

The second question assumes that the clause types in (5) involve movement and asks whether this movement is more closely identified with passive or with *wh*-movement. Rackowski and Richards (2005) propose that the Tagalog analogues of

<sup>&</sup>lt;sup>2</sup>Careful descriptive work on Austronesian voice systems is ongoing, as evidenced by two recent collections of new empirical data (Arka and Ross 2005; Austin and Musgrave 2005).



(5) are derived by movement of arguments to check an EPP feature on the head of vP. On the other hand, Pearson (2005) proposes that in Malagasy, these clauses involve wh-movement of a silent operator which is bound by a topic DP, and this topic DP is base-generated high in the periphery of the clause.

Complicating matters further, in some of the same languages, imperatives can or must be formed from so-called passive clauses, with the semantic agent represented by a null pronominal.<sup>3</sup> And evidence from binding and anaphora argues that even in so-called passives, the semantic agent is structurally higher than the semantic patient or theme at some point in the derivation.<sup>4</sup> These and other characteristics have led researchers to informally label the voice systems of Austronesian languages as 'symmetric' (meaning that so-called passives have more of the profile of actives than they do in more familiar languages, both in terms of the structural position of the agent and in terms of distribution). They have also given rise to a style of analysis—first pursued in the functionalist tradition (e.g., Cartier 1989; Verhaar 1989) and then taken up within generative syntax (see e.g., Gerdts 1988; Aldridge 2004a)—that treats some or all Austronesian languages as morphosyntactically ergative. On this approach, the Malagasy (5b) would be a transitive clause with ergative case-marking; (5c) would be a transitive applicative; and (5a) would be an antipassive clause (cf. Aldridge 2009).

It is extremely difficult to locate empirical evidence that differentiates the ergative view of Austronesian clause structure from the 'passive' (more properly speaking, accusative) view, especially in languages in which all the syntactic action is directed to the most prominent DP (= the absolutive or the subject, depending on which view is adopted). Suffice it to say that there is still enormous controversy over how best to analyze the voice systems of particular Austronesian languages. The articles in this issue adopt what could be called a moderate stance, employing the term *subject* or *external argument* for the most prominent DP but otherwise remaining non-committal about the derivation of the clause types in (5). But it is clear that far more research must be done before any of the issues raised in this section can be considered to be resolved. Again, as in the discussion of word order, we would like to underscore the possibility that highly articulated voice systems in different Austronesian languages might not have the same structure, and the analysis of individual systems must pay close attention to language-specific considerations.

### 4 The subjects-only restriction

The last element of the Austronesian syntactic profile to be discussed here is a particularly rigid constraint on extraction: The only DP argument that can be extracted is

<sup>&</sup>lt;sup>4</sup>The conflict between these patterns and the constraint on extraction discussed in the next section led Schachter (1976) to propose that there is no unitary notion of subject in Philippine languages. The dilemma was elegantly resolved within Principles and Parameters Theory by Guilfoyle et al. (1992), who posited a syntax for Austronesian clause types that recognizes two subject positions: In current terms, the specifier of v and the specifier of T.



<sup>&</sup>lt;sup>3</sup>As developmental data suggest, such "passive imperatives" are acquired as early as, or even earlier than, their active counterparts (Hyams et al. 2006), which is surprising if these are true passives.

the most prominent DP. This subjects-only restriction is widespread in Austronesian: It occurs, for instance, in Malagasy, Philippine languages, Formosan languages, languages of Indonesia, and Polynesian languages. (It resurfaces as an absolutives-only restriction in some of the transparently ergative Polynesian languages, such as Tongan or Samoan.<sup>5</sup>) The restriction has been the springboard for much syntactic theorizing since it was first observed by Keenan (1972), and the theoretical explanations offered have been, and continue to be, quite diverse.

For instance, in their minimalist discussion of voice and extraction in Tagalog, Rackowski and Richards (2005) derive the subjects-only restriction from the Phase Impenetrability Condition, plus the claim that in this language, vP forms a phase. Their analysis comes close to explicitly maintaining the tight connection between voice and extraction originally posited for Austronesian by Keenan. In contrast, in Pearson's (2005) discussion of Malagasy, there simply is no subjects-only restriction. For Pearson, the so-called voices of Malagasy—the clause types of (5)—are produced by *wh*-movement applying directly to different DP arguments. What is distinctive about Malagasy is that extraction is signaled morphologically in the verb, arguably by *wh*-agreement, which according to Pearson (2005) functions just as the *wh*-agreement in Chamorro (Chung 1998). If this approach is on the right track, Malagasy is a language with *wh*-agreement but no highly articulated voice system as such. The inflection analyzed by others as voice instead serves to indicate which DP—subject, direct object, or applicative object—has undergone *wh*-movement.

The opposite tack is taken by Gerassimova and Sells (2008) in their discussion of *wh*-constructions in Tagalog. They hypothesize that all *wh*-constructions in Tagalog are built from relative clauses, and that relativization in this language involves not *wh*-movement (A-bar-movement) but rather subject-to-subject raising (A-movement). In their system, Tagalog has no *wh*-movement, and the subjects-only restriction follows from the generalization (however it is ensured theoretically) that A-movement across clauses must target an embedded subject. The lively theoretical debate concerning A- *vs.* A-bar movement derivations of relative clauses has led researchers to develop a number of testable predictions (cf. Bianchi 2002; Bhatt 2002; Heycock 2005; among others), and extending these predictions to Austronesian languages could help researchers to move forward in understanding the subjects-only restriction.

What emerges even from this brief discussion is that most explanations of the subjects-only restriction are deeply intertwined with explanations of the Austronesian voice system. Some recent attempts have been made to broaden the scope of investigation; for instance, by exploring patterns of adjunct extraction in Austronesian languages (see Gärtner et al. 2006). Some Austronesian languages, such as Chamorro, Malagasy, and Indonesian, appear to allow adjuncts to extract freely, as long as the usual island constraints are obeyed; in other Austronesian languages, adjunct extraction appears to be severely restricted. We suspect that adjunct extraction could ultimately shed quite a bit of light on the peculiarly Austronesian interplay of voice and

<sup>&</sup>lt;sup>5</sup>By a transparently ergative language, we mean a language in which (i) there are no systematic voice alternations and (ii) morphological case has an ergative-absolutive alignment, not a nominative-accusative alignment.



extraction that we have just surveyed. But the fleshing out of this intuition must be left for a different time.

#### 5 The structure of this issue

This issue includes three articles, each of which is followed by a commentary by another Austronesian linguist. In choosing the pairings of authors we tried to maximize the range of empirical expertise within Austronesian and bring together complementary or even opposing theoretical outlooks. It is pleasing that the articles and the commentaries share the desire to investigate Austronesian languages beyond the "usual suspects" of word order, voice, and extraction constraints; at the same time as they build on advances made in these areas, they also press forward to address a broader range of research questions. This we see as one sign of a maturing field, which is capable of posing important questions whose answers could benefit the entire linguistic community, not just Austronesianists.

The article by Sabbagh explores the interaction of syntax and semantics in the existential constructions of Tagalog. Sabbagh situates his inquiry in a larger syntactic typology of existentials in which the main options are a simple sentence with an intransitive (unaccusative) predicate, on the one hand, and a complex sentence with a small clause complement, on the other. The debate over the structure of existential sentences has deep roots in linguistic theory, and has certainly enriched our understanding of the interfaces bridging syntax, semantics, and pragmatics. While there may well be no consensus on which analysis is best for any given language (see some discussion of that in Keenan's commentary), linguists are now in the position of having a well-developed set of diagnostics that can be used to adjudicate among the possibilities. The most detailed comparative study of existential constructions within Austronesian is Zeitoun et al.'s (1999) study of existentials, locatives, and possessives in Formosan languages. When this work is taken together with (Chung 1987; den Dikken 2003; Massam 2009; Paul 2001; Tjung 2005; Polinsky 2008), it becomes clear that existentials in some Austronesian languages demand the simplex analysis (e.g., Chamorro, Malagasy), existentials in other Austronesian languages may be ripe for the small clause analysis (e.g., Rotuman), and finally, some languages may have alternative constructions that call for both analyses (e.g., Niuean). The next item on the agenda is to expand the list of syntactic correlates of the simplex vs. small clause structures, and both Sabbagh and Keenan offer preliminary thoughts on this matter. We hope that Sabbagh's analysis and the cross-linguistic guidelines developed in his article and in Keenan's commentary will inspire further exploration of existential sentences in other Austronesian languages.

Of course, no study of existential constructions is complete without some discussion of the definiteness effect. As Sabbagh shows, Tagalog exhibits a classic definiteness effect: The pivot cannot be a pronoun, proper name, or a DP that is universally quantified or interpreted as definite. However, other Austronesian languages exhibit a more attenuated definiteness effect. Hendrick (2005) has demonstrated that in Tongan, the pivot of an existential sentence can be universally quantified or definite (as long as it lacks the definitive accent), but it cannot be a pronoun or proper name. Compare the following examples:



- (6) An attenuated definiteness effect in Tongan existentials
  - 'Oku ʻi ai e fanga puaka kotoa рē ʻi Nuku'alofa. in there pig all in Nuku'alofa PRES DET PL'There is every pig in Nuku'alofa.' (Hendrick 2005: 914)
  - 'Oku ʻi ai h e puaka ʻi Māketi. PRES in there the pig in market 'There is the pig at the market.' (Hendrick 2005: 913)
  - c. \*'Oku 'i ai nau 'i Māketi.

    PRES in there they in market

    ('There is them at the market.') (Hendrick 2005: 912)

Similarly, an attenuated definiteness effect has been observed in Indonesian existential sentences (Tjung 2005). If the definiteness effect is derived semantically (see Keenan 1976, 2003; McNally 1992; and many others), then the Tongan and Indonesian evidence may warrant a special semantic analysis. On the other hand, if this effect follows from the pragmatics (see Lumsden 1988; Ward and Birner 1995; Zucchi 1995; and many others), then the evidence would lead one to expect that pragmatic factors could be ranked differently in different languages. Whatever solution is adopted, an in-depth comparison of existentials in Austronesian may be needed to understand this micro-variation in interpretation or use (strong *vs.* attenuated definiteness effect) and the extent to which it might be a consequence of micro-variation in syntactic structure.

Keenan's commentary engages the syntactic typology of existentials as well as their formal semantics. In the second half of his discussion, he scrutinizes Sabbagh's proposal that pivots must be property-denoting (of type <e,t>), comparing it with his own (1987) proposal that they must be projected from cardinal determiners. He shows that only the latter proposal succeeds in limiting the size of the set of relevant DP denotations in the appropriate way. The demonstration is elegant. Even for readers who might still prefer the property-denoting approach, Sabbagh's article and Keenan's commentary are paradigm examples of what formal syntax and formal semantics can contribute to the understanding of the syntax-semantics interface.

The article by Potsdam lays out an ambitious research program for the investigation of the syntax of *wh*-questions, and while the discussion is focused on Austronesian, the methodology he proposes can be generalized to other language families. Potsdam's discussion zeroes in on biclausal *wh*-questions: Clefts or pseudo-clefts in which the interrogative phrase is the focus. These are revealed to be more common crosslinguistically than one might have thought from the literature on *wh*-movement, which tends to consider only the familiar options of *wh*-movement (as in English) and simple *wh*-in-situ (as in Japanese). It is worth raising the question why natural language should employ biclausal *wh*-questions at all. Could the biclausal design of *wh*-question be grammatically privileged, either in verb-first languages or more generally? Or could this type of *wh*-questions be more efficient from a processing standpoint, since in a biclausal *wh*-question there is no direct *wh*-dependency between the interrogative phrase and the gap (see (7b))?

(7) a. [CP wh-phrase; [TP ... \_i]] b. [PredP wh-phrase] [DP D [CP Op; \_\_i]] Null operators are relevant to the typology Potsdam begins to build, but Hermon notes in her commentary that this leads to a potential complication: VP-raising languages are predicted not to have null operators that are DP's. Like many others, Hermon assumes that in VP-raising languages, the heads that would normally trigger DP movement by probing for D instead trigger VP raising by probing for V. If this is so, a null operator that undergoes movement could not be a DP, since it would have to raise to the specifier of C in a language that does not allow DP movement to begin with.

Hermon proposes that the structure of *wh*-questions in Austronesian should be linked not to V(P) raising but instead to the availability of *wh*-agreement, which has been documented in Chamorro and Palauan (Georgopoulos 1985, 1991) and may well occur in other Austronesian languages, possibly including Malagasy (see Sect. 3 above). This proposal could be tested in other Austronesian languages. It could also be tested outside Austronesian, particularly in Salish and Mayan languages, which bear many broad similarities to Austronesian.

Both Potsdam and Hermon build a compelling case for what Hermon calls "deep typology": Obtaining linguistic generalizations by establishing implications between derivational paths rather than surface patterns. Functional typology and generative syntactic theory are equally interested in language universals, but the difference lies in what counts as the source of such universals (and accordingly, what methodology could be used to establish their existence). Potsdam suggests that implicational universals can be derived from UG principles. As Hermon shows, he might not have succeeded in building an exceptionless universal. Still, Potsdam's and Hermon's dialogue can serve as the proof of concept that deep typology is a viable approach—one that could potentially bring together more functionally-oriented typology and formal grammar.

The article by Gärtner focuses on a seemingly modest corner of Malagasy grammar, namely, the full range of structures and interpretations associated with the particle no. Although the topic may initially seem parochial, the particle no lends itself to an insightful analysis which has profound implications for clause combining and the structure of (pseudo-)clefts. The core contribution of the paper is the exploration of the consequences of syntactic proposals for the structure of Austronesian clefts (the reader will find pertinent syntactic discussion in Potsdam's paper and also in Kroeger's commentary on Gärtner's paper). The semantics of predicational and specificational clefts has been challenging even in more familiar languages. The fact that a fine-grained semantic analysis of these structures can now be done in an Austronesian language is a testament to the growing field of cross-linguistic semantics. The paper also adds to the literature on the range of variation in free relatives. Here a crucial issue has to do with the maximality requirement on these relative clauses. It seems clear that while some free relatives are definite descriptions, other free relatives lack quantificational force (Caponigro 2004). The latter are typically introduced by a wh-word, while Malagasy free relatives are not. It remains to be seen if the presence versus absence of a wh-word in a free relative plays a defining role in satisfying the maximality requirement. Even if that were the case, one would want to know why. Overall, Gärtner makes a strong argument for a compositional analysis of clefts—based on the traditional semantic assumptions—and uses compositionality to adjudicate between competing syntactic analyses.



Kroeger's commentary provides a dazzling empirical complement to Gaertner's piece, adding fine-grained data from several Austronesian languages to the equation. One of the generalizations that seems to emerge from the data concerns the nature of Austronesian quantifiers. For example, expressions usually translated as 'most' in Tagalog and Malagasy do not fit the familiar profile of strong quantifiers. This suggests that a different, or a more fine-grained, lexical semantics for these expressions may be called for.

Also important is Kroeger's conclusion that syntactic and information-structural properties of a given clause do not have to be isomorphic. In this, he follows the conception advanced by Lambrecht (1994), whose work he cites: Information structure should be recognized as a level of representation in its own right, and therefore information-structural characteristics of constituents cannot be directly read off their phrase-structure. This is certainly an open issue, but Kroeger deserves much credit for re-raising it. It seems that the best argument for the autonomy of information structure would come from evidence that information-structural categories (topic, focus) trespass the boundaries of syntactic constituents. So far, however, such evidence has been hard to come by, even in more familiar languages.

### 6 By way of conclusion

So far, generative research on Austronesian syntax has led to detailed, theoretically-informed studies of a relatively small number of languages. The level of understanding is similar to that achieved in Romance linguistics just before the early 1970's, when work by Richard Kayne and his students, comparing and contrasting French, Italian, and Spanish, created the field of comparative Romance syntax. Comparative Romance syntax has since been a key testing ground for research on linguistic universals and language variation. Further, it has demonstrated the enormous benefits of in-depth research on closely related languages and dialects. Such research allows us to uncover subtle distinctions and fine details of grammar that often remain unnoticed in a coarse-grained approach to language typology.

Comparative Austronesian syntax has much to contribute to this general enterprise. Because of the sheer number of Austronesian languages, such a field could provide a exemplary testing ground for linguistic theory—one larger and typologically more diverse than Romance or Germanic. We hope this special issue will help to spur the development of this field. Meanwhile, the articles and commentaries presented here will give readers a window into the study of Austronesian syntax and semantics and its current contributions to linguistic theory.

**Acknowledgements** We would like to thank the audience at the Comparative Austronesian Syntax Workshop, James McCloskey, and Lisa Travis for helpful discussion of the issues raised in this introduction, and Marcel den Dikken for encouraging us to bring the papers and commentaries to publication. We are indebted to the funding agencies mentioned in the first paragraph of the text for making the Workshop possible. All errors are our sole responsibility.

**Open Access** This article is distributed under the terms of the Creative Commons Attribution Noncommercial License which permits any noncommercial use, distribution, and reproduction in any medium, provided the original author(s) and source are credited.



#### References

- Aldridge, Edith. 2004a. Ergativity and word order in Austronesian languages. PhD dissertation, Cornell University, Ithaca, NY.
- Aldridge, Edith. 2004b. Internally headed relative clauses in Austronesian languages. Language and Linguistics 5: 99–129.
- Aldridge, Edith. 2009. Antipassive in Austronesian alignment change. In Grammatical change: origins, nature, outcomes, eds. Dianne Jonas, John Whitman, and Andrew Garrett. Oxford: Oxford University Press
- Arka, I Wayan, and Malcom Ross, eds. 2005. The many faces of Austronesian voice systems: some new empirical studies. Pacific Linguistics, 571. Canberra: Pacific Linguistics.
- Austin, Peter, and Simon Musgrave, eds. 2005. Voice and grammatical functions in Austronesian languages. Stanford: CSLI.
- Bauer, Winifred. 1993. Maori. London: Routledge.
- Bellwood, Peter. 1979. Man's conquest of the Pacific: the prehistory of Southeast Asia and Oceania. New York: Oxford University Press.
- Bhatt, Rajesh. 2002. The raising analysis of relative clauses: evidence from adjectival modification. *Natural Language Semantics* 10: 43–90.
- Bianchi, Valentina. 2002. Headed relative clauses in generative syntax. Parts I–II. *Glot International* 6.7–6.8: 235–247.
- Blust, Robert. 1999. Subgrouping, circularity and extinction: some issues in Austronesian comparative linguistics. In *Selected papers from the eighth international conference on Austronesian linguistics*, eds. Elizabeth Zeitoun and Paul Jen-kuei Li, 31–94. Taipei: Academia Sinica.
- Broschart, Jürgen. 1997. Why Tongan does it differently: categorial distinctions in a language without nouns and verbs. *Linguistic Typology* 1: 123–165.
- Caponigro, Ivano. 2004. The semantic contribution of *wh*-words and type shifts: evidence from free relatives cross-linguistically. In *Proceedings from the conference on semantics and linguistic theory (SALT) XIV*, ed. Robert N. Young, 38–55. Ithaca: Cornell University Publications.
- Carnie, Andrew. 1995. Non-verbal predication and head-movement. PhD Dissertation, Massachusetts Institute of Technology, Cambridge, Mass.
- Carnie, Andrew, Heidi Harley, and Sheila Ann Dodey, eds. 2005. Verb first: on the syntax of verb-initial languages. Amsterdam: John Benjamins.
- Cartier, Alice. 1989. De-voiced transitive verb sentences in formal Indonesian. In *Serpih-Serpih Telaah Pasif Bahasa Indonesia*, ed. Kaswanti Purwo, 84–145. Yogyakarta: Kanisius.
- Chung, Sandra. 1978. Case marking and grammatical relations in Polynesian. Austin: University of Texas Press.
- Chung, Sandra. 1987. The syntax of Chamorro existential sentences. In *The representation of (in)definiteness*, eds. Eric Reuland and Alice ter Meulen, 191–225. Cambridge: MIT Press.
- Chung, Sandra. 1998. The design of agreement. Chicago: University of Chicago Press.
- Chung, Sandra. 2006. Properties of VOS Languages. In *The Blackwell companion to syntax (syncom)*, eds. Martin Everaert, Henk van Riemsdijk, Rob Goedemans, and Bart Hollebrandse, 685–720. Malden–Oxford: Blackwell.
- Chung, Sandra, and James McCloskey. 1987. Government, barriers, and small clauses in Modern Irish. Linguistic Inquiry 18: 173–237.
- Cole, Peter, and Gabriella Hermon. 2005. Subject and nonsubject relativization in Indonesian. *Journal of East Asian Linguistics* 14: 59–88.
- Cole, Peter, and Gabriella Hermon. 2008a. Malay/Indonesian syntax from an Austronesian perspective: an introduction. *Lingua* 118: 1431–1439.
- Cole, Peter, and Gabriella Hermon. 2008b. VP raising in a VOS language. Syntax 11: 144-197.
- Cole, Peter, Gabriella Hermon, and Yanti. 2008. Voice in Malay/Indonesian. Lingua 118: 1500-1553.
- Custis, Tonya. 2005. Word order variation in Tongan: a syntactic analysis. PhD Dissertation, University of Minnesota.
- Dahl, Otto Christian. 1951. Malgache et maanyan. Une comparaison linguistique. Avhandlinger utgitt av Instituttet 3. Oslo: Edege Instituttet.
- Davies, William, and Stanley Dubinsky. 2001. Functional architecture and the distribution of subject properties. In *Objects and other subjects: grammatical functions, functional categories, and configurationality*, 247–279. Dordrecht: Kluwer.
- Dempwolff, Otto. 1920. Die Lautentsprechungen der indonesischen Lippenlaute in einigen anderen austronesischen Sprachen, Habilitationsschrift. ZfES 2. Berlin: Beiheft, Dietrich Reimer.



- Dempwolff, Otto. 1934. Vergleichende Lautlehre des Austronesischen Wortschatzes, Band 1. Induktiver Aufbau einer indonesischen Ursprache. ZfES 15. Berlin: Beiheft, Dietrich Reimer.
- Dempwolff, Otto. 1937. Vergleichende Lautlehre des Austronesischen Wortschatzes, Band 2. Deduktive Anwendung des Urindonesischen auf austronesische Einzelsprachen. ZfES 17. Berlin: Beiheft, Dietrich Reimer.
- Dempwolff, Otto. 1938. Vergleichende Lautlehre des Austronesischen Wortschatzes, Band 3. Austronesisches Wörterverzeichnis. ZfES 19. Berlin: Beiheft, Dietrich Reimer.
- den Dikken, Marcel. 2003. The structure of the noun phrase in Rotuman. Lincom Studies in Austronesian Linguistics, 05. Berlin: LINCOM Europa.
- Emonds, Joseph. 1980. Word order in generative grammar. Journal of Linguistic Research 1: 33-54.
- Gärtner, Hans-Martin, Paul Law, and Joachim Sabel. 2006. Clause structure and adjuncts in Austronesian languages: a critical introductory survey. In *Clause structure and adjuncts in Austronesian languages*, eds. Hans-Martin Gärtner, Paul Law, and Joachim Sabel, 1–42. Berlin: Mouton de Gruyter.
- Georgopoulos, Carol. 1985. Variables in Palauan syntax. *Natural Language & Linguistic Theory* 3: 59–94. Georgopoulos, Carol. 1991. *Syntactic variables: resumptive pronouns and A'-binding in Palauan*. Dordrecht: Kluwer.
- Gerassimova, Veronica, and Peter Sells. 2008. Long-distance dependencies in Tagalog: the case for Raising. In *Proceedings of the 26th west coast conference on formal linguistics*, eds. Charles B. Chang and Hannah Haynie, 190–198. Somerville: Cascadilla Press.
- Gerdts, Donna. 1988. Antipassives and causatives in Ilokano: evidence for an ergative analysis. In Studies in Austronesian linguistics, ed. Richard McGinn, 295–321. Athens: Ohio University Center for International Studies.
- Gil, David. 2004. Riau Indonesian *sama*: explorations in macrofunctionality. In *Coordinating constructions*, ed. Martin Haspelmath, 371–424. Amsterdam: John Benjamins.
- Gil, David. 2005. Word order without syntactic categories: how Riau Indonesian does it. In *Verb first:* on the syntax of verb-initial languages, eds. Andrew Carnie, Heidi Harley, and Sheila Ann Dooley, 243–263. Amsterdam: John Benjamins.
- Grace, George W. 1959. The position of the Polynesian languages within the Austronesian (Malayo-Polynesian) language family. Indiana University Publications in Anthropology and Linguistics. *International Journal of American Linguistics*, Memoir 16.
- Grace, George W. 1961. Austronesian linguistics and culture history. *American Anthropologist* 63: 359–368
- Guilfoyle, Eithne, Henrietta Hung, and Lisa Travis. 1992. Spec of IP and spec of VP: two subjects in Austronesian languages. *Natural Language & Linguistic Theory* 10: 375–414.
- Hendrick, Randall. 2005. Tongan determiners and semantic composition. Language 81: 907-926.
- Heycock, Caroline. 2005. On the interaction of adjectival modifiers and relative clauses. *Natural Language Semantics* 13: 359–382.
- Hyams, Nina, Cecile Manorohanta, and Dimitris Ntelitheos. 2006. Acquisition of the Malagasy voicing system: implications for adult grammar. *Natural Language & Linguistic Theory* 24: 1049–1092.
- Keenan, Edward. 1972. Relative clause formation in Malagasy. In *Chicago which hunt: papers from the relative clause festival*, eds. Paul M. Peranteau, Judith N. Levi, and Gloria C. Phares, 169–189. Chicago: Chicago Linguistic Society.
- Keenan, Edward L. 1976. Remarkable subjects in Malagasy. In Subject and topic, ed. C.N. Li, 247–301. New York: Academic Press.
- Keenan, Edward L. 1987. A semantic definition of 'indefinite NP'. In *The representation of (in)definiteness*, eds. Eric Reuland and Alice ter Meulen, 286–326. Cambridge: MIT Press.
- Keenan, Edward L. 2003. The definiteness effect: semantics or pragmatics? *Natural Language Semantics* 11: 187–216.
- Keenan, Edward L. 2008. Voice and relativization without movement in Malagasy. Natural Language & Linguistic Theory 26: 467–497.
- Kikusawa, Ritsuko. 2002. Proto central Pacific ergativity: its reconstruction and development in the Fijian, Rotuman and Polynesian languages. Pacific Linguistics, 520. Canberra: Pacific Linguistics.
- Klamer, Marian. 2002. Ten years of synchronic Austronesian linguistics. *Lingua* 112: 933–965.
- Koopman, Hilda, and Anna Szabolcsi. 2000. Verbal complexes. Cambridge: MIT Press.
- Lambrecht, Knud. 1994. *Information structure and sentence form: topic, focus, and the mental representations of discourse referents*. Oxford: Oxford University Press.
- Lumsden, Michael. 1988. Existential sentences: their structure and meaning. London: Croom Helm.
- Massam, Diane. 2001. Pseudo noun incorporation in Niuean. *Natural Language & Linguistic Theory* 19: 153–197.



- Massam, Diane. 2005. Lexical categories, lack of inflection, and predicate fronting in Niuean. In *Verb first:* on the syntax of verb-initial languages, eds. Andrew Carnie, Heidi Harley, and Sheila Ann Dooley, 227–242. Amsterdam: John Benjamins.
- Massam, Diane. 2009. Existential incorporation constructions. Lingua 119: 166–184.
- Massam, Diane, and Carolyn Smallwood. 1997. Essential features of predication in English and Niuean. In *Proceedings of the 27th North East Linguistic Society*, ed. Kiyomi Kusumoto, 263–272. Amherst: GLSA Publications.
- McCloskey, James. 1991. Clause structure, ellipsis, and proper government in Irish. Lingua 85: 259–302.
- McCloskey, James. 2001. The distribution of subject properties in Irish. In *Objects and other subjects:* grammatical functions, functional categories, and configurationality, eds. William Davies and Stanley Dubinsky, 157–192. Dordrecht: Kluwer.
- McNally, Louise. 1992. An interpretation for the English existential construction. PhD Dissertation, University of California at Santa Cruz.
- Nguyen, Ba Duong. 1998. Le systeme "verbal" du wallisien. In *Systemes verbaux*, ed. Fernand Bentolila, 307–326. Louvain-la-Neuve: Peeters.
- Oda, Kenji. 2005. V1 and wh-questions: a typology. In Verb first: on the syntax of verb-initial languages, eds. Andrew Carnie, Heidi Harley, and Sheila Ann Dooley, 107–134. Amsterdam: John Benjamins.
- Otsuka, Yuko. 2005. Two derivations of VSO: a comparative study of Niuean and Tongan. In *Verb first:* on the syntax of verb-initial languages, eds. Andrew Carnie, Heidi Harley, and Sheila Ann Dooley, 65–90. Amsterdam: John Benjamins.
- Paul, Ileana. 2001. Concealed pseudo-clefts. Lingua 111: 707-727.
- Pearce, Elizabeth. 2002. VP versus V raising in Māori. In *Proceedings of AFLA VIII: the eighth meeting of the Austronesian Formal Linguistics Association. MIT Working Papers in Linguistics, 44*, eds. Andrea Rackowski and Norvin Richards, 225–240. Cambridge: MIT Press.
- Pearson, Matthew. 2001. The clause structure of Malagasy: a minimalist approach. PhD Dissertation, University of California, Los Angeles.
- Pearson, Matthew. 2005. The Malagasy subject/topic as an A'-element. *Natural Language & Linguistic Theory* 23: 381–457.
- Polinsky, Maria. 2008. Existential constructions in Malagasy. In *Language and text in the Austronesian world. Studies in honor of Ülo Sirk*, ed. Yuri Lander, 222–257. Berlin: LINCOM Europa.
- Rackowski, Andrea, and Norvin Richards. 2005. Phase edge and extraction: a Tagalog case study. *Linguistic Inquiry* 36: 565–599.
- Rackowski, Andrea, and Lisa Travis. 2000. V-initial languages: X or XP movement and adverbial placement. In *The syntax of verb-initial languages*, eds. A. Carnie and E. Guilfoyle, 117–141. Oxford: Oxford University Press.
- Ross, Malcolm. 1995. Some current issues in Austronesian linguistics. In *Comparative Austronesian dictionary: an introduction to Austronesian studies, part 1, fascicle 1*, ed. Darrell T. Tryon, 45–120. Berlin: Mouton de Gruyter.
- Sabbagh, Joseph A. 2005. Non-verbal argument structure: evidence from Tagalog. PhD dissertation, Massachusetts Institute of Technology, Cambridge, Mass.
- Schachter, Paul. 1976. The subject in Philippine languages: topic, actor, actor-topic or none of the above? In *Subject and topic*, ed. C.N. Li, 491–518. New York: Academic Press.
- Sells, Peter. 2000. Raising and the order of clausal constituents in the Philippine languages. In *Formal issues in Austronesian linguistics*, eds. Ileana Paul, Vivianne Phillips, and Lisa Travis, 117–144. Dordrecht: Kluwer.
- Sproat, Richard. 1985. Welsh syntax and VSO structure. Natural Language & Linguistic Theory 3: 173–216
- Tchekhoff, Claude. 1981. Simple sentences in Tongan. Canberra: Australian National University.
- Tjung, Yassir. 2005. On. Ada-constructions in Indonesian. Manuscript, University of Delaware.
- Verhaar, John M. 1989. Syntactic ergativity in contemporary Indonesian. In Serpih-Serpih Telaah Pasif Bahasa Indonesia, ed. B. Kaswanti Purwo, 200–281. Yogyakarta: Kanisius.
- Ward, Gregory, and Betty Birner. 1995. Definiteness and the English existential. Language 71: 722-742.
- Zeitoun, Elizabeth, Lillian M. Huang, Marie M. Yeh, and Anna H. Chang. 1999. Existential, possessive, and locative constructions in Formosan languages. *Oceanic Linguistics* 38: 1–42.
- Zucchi, Alessandro. 1995. The ingredients of the definiteness effect. *Natural Language Semantics* 3: 33–78.
- Zwartjes, Otto, and Even Hovdhaugen. 2004. Introduction. In *Missionary linguistics/linguistica misionera*, eds. Otto Zwartjes and Even Hovdhaugen, 1ff. Amsterdam: John Benjamins.

