

ON THE PRESENCE OF ADJECTIVES IN FIJIAN AND THE UNIVERSALITY OF THE CATEGORY ‘ADJECTIVE’*.

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There is a strand of work in the Austronesian literature claiming that the syntactic category distinctions familiar from Indo-European are lacking in certain languages belonging to this family. On the other hand, Baker (2005) claims that the categories noun, verb and adjective are represented in the grammars of all languages. This paper contributes to this debate, taking Fijian adjectives as a case study. In Fijian, putative adjectives can occur with person, number and tense morphology, making one suspect that they are in fact stative verbs, as various researchers have suggested for this and other members of the Oceanic branch. We show that despite appearances, ‘adjective’ is a member of Fijian’s inventory of syntactic categories. This finding suggests that the ability to combine with person, number and tense markers is not a good diagnostic for verb-hood. This in turn casts doubt on claims that a given language lacks adjectives that are based on this test, opening the possibility that the category ‘adjective’ may indeed be universal.

1. Introduction

It is a somewhat vexed question whether the lexical categories noun, verb and adjective are common to all languages. Within Austronesian linguistics, it has for example been suggested that it is inappropriate to apply the labels ‘noun’ and ‘verb’ to Tongan parts of speech (Broschart 1997), and that Tagalog merely has a single open class syntactic category (Gil 1993a, 1993b, 1995). On the other hand, Baker (2005) defends a universalist approach to lexical categories, arguing that while there may be cross-linguistic variation in the inventory of functional categories, all languages have nouns, verbs and adjectives. If we narrow our gaze to the Oceanic branch and focus on the category ‘adjective’, we find in the literature a challenge to the universalist hypothesis in the form of the claim that Oceanic languages render as stative verbs those forms that would be adjectives in other languages. (See, for example, Harrison 1976 on Mokilese and Hyslop 2004 on North-East Ambae.) This paper contributes to this discussion by presenting evidence for the existence of an independent class of adjectives in Fijian.

The paper is organized as follows. We firstly review the arguments that might lead one to collapse adjectives and verbs together in Fijian – that is, to posit that all ‘adjectives’¹ in the

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¹ At certain points I shall use the term ‘adjective’ to refer to any Fijian expression whose English counterpart is an adjective, without necessarily presupposing that those expressions in fact belong to the lexical category adjective, since the existence of items belonging to this category is precisely the topic of investigation here. The reader may imagine scare quotes around the word if wished.

language are in fact verbs. We then describe evidence against this view offered by Dixon (2004) and discuss some limitations of his arguments. This paper's primary contribution will be to apply some semantic tests, which lead us to the same conclusion as Dixon reached, albeit from a different direction. Some additional tests based on Baker (2005) are then presented. Having argued for the presence of adjectives as a syntactic category in Fijian, we consider what the syntax of adjectival modification and predication might be in the language. Two possible approaches are considered, one based on work by Richards (2009), and another that draws on insights from Baker (2005). We close by discussing implications for the status of adjectives as a universal syntactic category.

2. Some puzzles in the syntax of Fijian lexical categories.

What is special about Fijian adjectives? Suppose all Fijian lexical items that we gloss with English adjectives turned out to be verbs. We would expect no distributional differences between this class of items and common or garden verbs. For instance, we would expect that the 'adjectives' combine with tense, mood and aspect morphology in a manner identical to that of any other verb in the language. To understand this point, let's consider the case of English first. Baker (2005) points out that adjectives (and nouns) in predicative position differ from verbs in (i) requiring use of a copula (1), and (ii) being unable to combine with inflectional tense morphology (2):

- (1) a. John (*is) works hard.²
 - b. John *(is) diligent.

- (2) a. John worked hard/works hard/will work hard.
 - b. John *diligented/*diligents/*will diligent.

This is not to say, of course, that English has no means of expressing whether the property of 'being Adj' holds of the subject in the past, present or future. What is crucial is that the tense specification is provided by the form of the copula (3). More precisely, what inflects for tense is the form '*be* Adj', as can be seen particularly transparently in the future tense form, where *will* cannot combine with the bare predicate without the copula.

- (3) John *was* diligent/ *is* diligent / *will* *(be) diligent.

Turning to Fijian, things pattern rather differently. The language employs no overt copula; rather adjectives combine directly with markers of person/number, tense etc. which can also occur as

² The verb 'to be' can of course combine with verbs in the present progressive, as in 'John is working hard'. One could analyze this case as accidental homonymy with the true copula, or treat 'working' as an adjectival form requiring a copula. Either way, it can be set aside.

markers on verbal predicates, as can be seen by comparing the (a) examples with the (b) examples below.³

(4) a. e qase/balavu 'o Jone.
 3SG old/tall PERS.ART⁴ John
 'John is old/tall.'

b. e tiko 'o Jone.
 3SG come PERS.ART John
 'John comes.'

(5) a. e a qase/balavu 'o Jone.
 3SG PAST old/tall PERS.ART John
 'John was old/tall.'

b. e a tiko 'o Jone.
 3SG PAST come PERS.ART John
 'John came.'

These considerations might lead one to think that the more appropriate glosses for (4a) and (5a) are those shown in (4a') and (5a'). This would amount to treating the predicates in question as verbs rather than adjectives. Schütz (1979) takes this to be the correct strategy.

(4) a'. e qase/balavu 'o Jone.
 3SG be.old/be.tall PERS.ART John
 'John is old/tall.'

(5) a'. e a qase/balavu 'o Jone.
 3SG PAST be.old/be.tall PERS.ART John
 'John was old/tall.'

Similar considerations arise for predicative uses of nominals:

(6) e goneyalewa 'o Meri
 3SG girl PERS.ART Meri
 'Mary is a girl'.

On the other hand, person/number marking is absent with definite descriptions in predicative position:

³ Here we give merely a sample of the systems of person, number and tense marking in the language. For a more detailed discussion of tense, mood and aspect marking in Fijian, see Romoli (2008). The present tense is null.

⁴ The Fijian determiner system distinguishes between a personal determiner 'o, and a common noun determiner, *na*.

- (7) na goneyalewa balavu, ‘o Meri.
 ART girl tall PERS.ART Mary
 ‘Mary is the tall girl.’

We set aside the questions raised by the data in (6-7) concerning the relationship of the nominal and verbal classes, and the interaction of definiteness with person/number and tense marking, since they are orthogonal to the objectives of the present study. Let us simply observe that one explanation for the lack of an overt copula in Fijian, and for the ability of ‘adjectives’ and ‘nouns’ to combine with number and tense markers in the language, is that putative adjectives, and perhaps also (predicative uses of) nouns, are in fact verbs. We shall focus on this claim with particular attention to adjectives. Indeed, it is precisely this claim that we argue against in the remainder of the paper.

One question that proponents of the view that seeming adjectives are in fact stative verbs must answer is how attributive modification is to be treated. (7) suggests that some predicates can act as modifiers of nouns in Fijian – a unique hallmark of adjectives, at least in more familiar languages. Suppose we assigned the first DP of (7) the following structure.

- (7’) [_{DP} Na [_{NP} [_{NP} goneyalewa] [_{VP} balavu]]]
 ART girl be.tall

Three questions would immediately arise. Firstly, why can this verb appear without person/number marking⁵? Secondly, what assigns this structure the interpretation that it receives – that of an *e* type expression referring to the tall girl, as opposed to a type *t* expression that is true just in case the girl is tall. If (7’) were the correct structure, achieving this interpretation would require a non-standard syntax and syntax-semantics mapping, whereby verbal projections can be adjuncts, and can compose with the expressions they combine with via Predicate Modification rather than Functional Application, in the sense of Heim and Kratzer (1998). Finally, given that Fijian is a verb-initial language, why is (7’) possible but (7’’) not?

- (7’’) *balavu na goneyalewa.
 tall ART girl
 Intended: ‘the tall girl’

This approach is clearly a non-starter. The solution is to assume that apparent cases of adjectival modification are in fact instances of reduced relative clauses (RRCs). Indeed, *na goneyalewa balavu* is extensionally equivalent to its counterpart with an overt relative clause, (8). Note, moreover, that *na goneyalewa balavu* differs from (8) only in as much as the complementizer *ka* is pronounced in the latter but not the former.

⁵ Since present tense marking is null, it poses no problem here.

- (8) na goneyalewa ka balavu
 ART girl COMPL tall
 ‘the girl who is tall’

We shall argue that this analysis cannot be right. Moreover, the reduced relative clause analysis of attributive modification is as far as we know the only viable means of accounting for modification by elements belonging to verbal categories; hence if it is unsuccessful for Fijian then we should conclude that the language has the category ‘adjective’.

3. Previous work

Dixon (1988, 2004) argues in favor of the view endorsed in this paper that Fijian has adjectives. He identifies a modifier, *ru* (‘exceedingly’), which he notes can occur with some items but not others.

- (9) a. e rui levu
 3SG too big
 ‘S/he is too big’.

- b. *e rui pu’u
 3SG too angry
 ‘S/he is too angry’.

[Dixon 1988: 95; gloss his.]

Dixon claims that the constrained distribution of *ru* can be explained by assuming that *levu* is an adjective and *pu’u* is a verb, and specifying that *ru* can modify adjectives but not verbs.

The contrast between (9a) and (9b) constitutes an argument for a distinction between verbs and adjectives in Fijian only insofar as the distribution of modifying elements is determined exclusively on the basis of syntactic category. We know from work on the distinction between individual and stage level predicates that this is not the case, however (Carlson 1977). Intuitively, individual level predicates (ILPs) express permanent properties of individuals. Size is such a property, and so *levu* is an example of an ILP from Fijian. By contrast, stage level predicates (SLPs) express properties that change over time. Since properties that describe one’s emotional state are changeable, *pu’u* should be classed as an SLP. As is well known, quantificational adverbs such as *always* and *usually* can modify SLPs but not ILPs (10). Suppose that the distribution of *ru* is the complement of that of quantificational adverbs. We would then expect that *ru* should be able to modify *levu* but not *pu’u*, just as Dixon reports.

- (10) a. ?? He is always/usually big.
 b. He is always/usually angry.

Our aim here is not to adjudicate between Dixon’s explanation for the distribution of *ru* and the one we have just sketched. We merely wish to illustrate that it is in principle possible to account for Dixon’s data without postulating ‘adjective’ among Fijian’s inventory of syntactic categories. While we will ultimately agree with Dixon that Fijian has adjectives, we think there is scope to

discover more convincing evidence in favor of that view than has been offered before now.⁶ It is to this task that we now turn.

4. New evidence for adjectives in Fijian.

4.1. Non-intersective modification

Various authors (Baker 2005, Vander Klok 2009 and forthcoming) have observed that the reduced relative clause analysis can be tested for a given language by investigating what happens when so-called non-intersective adjectives are employed. *Former*, *counterfeit* and *beautiful* are all non-intersective adjectives. Typically, when an adjective modifies a noun directly, the resulting DP is extensionally equivalent with its counterpart with the adjective contained within a relative clause.⁷ Hence *the tall girl* and *the girl who is tall* denote the same individual, as discussed earlier. Non-intersective adjectives have the property that they do not preserve extensional equivalence between the two different types of modificational structure. *A beautiful dancer* and *a dancer who is beautiful* are not the same thing. The reasoning behind using non-intersective adjectives as a test for the RRC analysis is as follows. For the reduced relative clause analysis of attributive modification to be successful, extensional equivalence would need to be preserved between the modifiers under investigation and their counterparts with unreduced relative clauses. In many instances, this strategy will be successful, since in the unmarked case adjectival modification and relative clause modification are both interpreted via set intersection. Hence the equivalence of *tall girl* and *girl that is tall* is expected.⁸

It follows that attributive modification with non-intersective adjectives does not yield extensional equivalence when the modifier takes the form of a relative clause rather than a bare adjective. We demonstrate that there are instances of such non-equivalences in Fijian, suggesting that the reduced relative clause analysis will not work for all cases. In the following subsections, we show that the language has privative and subsective adjectives, both species of non-intersective adjectives. This is unexpected if modification is always accomplished by relative clauses and never by adjectives in Fijian.

4.1.1 Privative adjectives

Private adjectives have the property that when they occur as a value for P in a sentence of form ‘X is a P Y’, the sentence entails that X is not a Y. Hence *Blair is a former Prime Minister* entails that Blair is not a Prime Minister. As shown in (11), such adjectives cannot occur in relative clauses, since ‘X is a Y that is P’ entails that X is a Y.⁹ Hence using a privative adjective within a relative clause results in a degraded sentence.

⁶ Further arguments in favor of the view supported in this paper are offered by Ott (2008). See Pearson (2010) for discussion of the limitations of his arguments.

⁷ Two items $[_{DP} a]$ and $[_{DP} b]$ are extensionally equivalent just in case they denote the same individual (in every possible world).

⁸ See Appendix I for a proof of this.

⁹ This follows from the semantics of modification assumed in Appendix I.

(11) ?? Blair is a Prime Minister who is former.

The reduced relative clause analysis would therefore predict that there are no privative adjectives in Fijian. In fact, Ott (2008) discusses data suggesting that there may be a predicate with a meaning equivalent to *former* in the language.

(12) na dau cici totolo e liu
 ART HAB runner fast former
 ‘a/the former fast runner’[Ott 2008: gloss his]

It is doubtful to us whether *e liu* is a good example of a privative adjective. Although Ott glosses *e liu* as ‘former’, the expression can be further analyzed as a preposition plus the ordinal *first*, so that the whole expression is a PP literally meaning ‘at first’, or perhaps ‘at one time’, rather than a privative adjective.

Fortunately there is at least one convincing example of a privative adjective in Fijian: *lasu*, meaning ‘counterfeit’.

(13) e a volia na i vola ‘o Jone e na i
 3SG PAST buy ART NMLZ book PERS.ART John PRP ART NMLZ

 lavo lasu.
 money counterfeit
 ‘John bought the book with counterfeit money.’

Moreover, we can confirm that the privative adjective ‘counterfeit’ is a good translation for *lasu* by observing that the variant of (13) with *lasu* embedded within a relative clause is ungrammatical.

(13’) *e a volia na i vola o Jone e na
 3SG PAST buy ART NMLZ book PERS.ART John PRP ART

 i lavo ka lasu.
 NMLZ money COMPL counterfeit
 Intended: ‘?John bought the book with money that was counterfeit.’

Finally, we can check that *lasu* cannot be used in predicative position (14). This constitutes a further respect in which it is just like English ‘counterfeit’.

(14) *na i lavo e lasu.
 ART NMLZ money 3SG counterfeit
 Intended: ‘?The money is counterfeit.’

The contrast between (13) and (13'), and the very existence of a word meaning *counterfeit* are both unexpected if the language has no adjectives.

4.1.2 Subjective adjectives

When a subjective adjective P appears in a sentence of form, 'X is a P Y', the inference that X is P is not licensed. *Beautiful* is such an adjective in English: (15a) does not entail (15b).

- (15) a. Mary is a beautiful singer.
 b. Mary is beautiful.

On the other hand, when *beautiful* occurs inside a relative clause, this inference is licensed, as expected given standard assumptions about the semantics of relativization.

- (16) Mary is a singer who is beautiful.

The reduced relative clause analysis of Fijian adjectives would predict that there are no subjective adjectives in the language. One could conceive, for instance, of finding in the language a word meaning roughly *beautiful*, however the prediction would be that it is not subjective, that the Fijian counterpart of (15a) would entail (15b), and hence (15a) and (16) would be equivalent in the language.

This prediction is not borne out: *rogo*, 'famous', *vinaka*, 'good', and *makawa*, 'old' behave just like subjective adjectives.

- (17) a. e dau ni danisi rogo 'o Meri.
 3SG HAB LNK dancer famousPERS.ART Mary
 'Mary is a famous dancer.' (Mary is famous for her dancing).

- b. e dau ni danisi ka rogo 'o Meri.
 3SG HAB LNK dancer COMPL famous PERS.ART Mary
 'Mary is a dancer who is famous.' (compatible with her fame being for something other than dancing).

- (18) a. e noqu lala vinaka 'o Meri
 3SG 1SG.POSS friend good PERS.ART Mary
 'Mary is my good/close friend.'

- b. *e noqu lala ka vinaka 'o Meri
 3SG 1SG.POSS friend COMPL good PERS.ART Mary
 Intended: 'Mary is my good/close friend.'

- (19) a. e noqu lala makawa ‘o Meri
 3SG 1SG.POSS friend old PERS.ART Mary
 ‘Mary is my old friend.’
- b. *e noqu lala ka makawa ‘o Meri
 3SG 1SG.POSS friend COMPL old PERS.ART Mary
 Intended: ‘Mary is my old friend.’ / ‘Mary is my friend who is old.’

- (20) a. e pilate makawa ‘o Jone
 3SG pilot old PERS.ART John
 ‘John is an experienced pilot.’
- b. *e pilate ka makawa ‘o Jone
 3SG pilot COMPL old PERS.ART John
 Intended: ‘John is an experienced pilot.’ / ‘John is a pilot who is old.’

Our understanding of subsecutive adjectives in Fijian will be improved if we take a little time to understand why (18b), (19b), or (20b) are ungrammatical. After all, ‘Mary is my friend who is old’ and ‘John is a pilot who is old’ are possible sentences of English. Our explanation will involve identifying selectional restrictions for *makawa* that do not apply to English *old*. *Makawa* cannot be predicated of people in order to describe their age (21a). Instead, *qase* must be used (21b):

- (21) a. *e makawa ‘o Meri.
 3SG old PERS.ART Mary
 Intended: ‘Mary is old.’
- b. e qase ‘o Meri.
 3SG old PERS.ART Mary
 ‘Mary is old.’

The question, then, is why *makawa* is apparently able to modify the animates *lala* (‘friend’) and *pilate* (‘pilot’) in (19a) and (20a). In fact, we think that this is merely an illusion. Intuitively, *makawa* describes the duration of Mary’s friendship and of John’s being a pilot. Duration is a property of events, not of individuals. A suitable meaning for (20a) is given below.

- (22) $\exists e$ [e(being-a-pilot) & Ag (John, e) & long-duration(e)]

This semantics is needed in order to maintain our generalization about the selectional restrictions associated with *makawa*. It turns out that it is essentially the semantics for subsecutive adjectives proposed in Larson (1999). We think that our solution to the puzzle posed by (19b) and (20b) constitutes further evidence that Fijian has subsecutive adjectives, and hence that the reduced relative clause analysis is not viable for this language.

4.2 Baker's diagnostics

Baker (2005) identifies three syntactic environments in which adjectives can appear, but nouns and verbs cannot: (i) as modifiers of nouns; (ii) as complements of degree heads such as *as* and *too*; (iii) as resultative secondary predicates. If we find words that can appear in these environments in Fijian, then we will have made a convincing case that Fijian has adjectives.

I take it that we have by now provided compelling evidence that adjectives can occur as direct modifiers of nouns; that is, they do not require embedding within a relative clause structure in order to adjoin to nouns and be interpreted as composing with them via Predicate Modification. So one down, two to go.

4.2.1 Degree heads

I have argued elsewhere (Pearson, forthcoming) that Fijian has no overt or covert functional degree morphology such as *as*, *too*, *more* etc. I will not rehearse the arguments discussed there, but simply point out that this property of the language should not be taken as evidence that it does not have adjectives, but rather it has the consequence that Baker's second test is inapplicable in Fijian. That is, if a language has degree heads and lexical items that appear as complements of those heads, then this counts as evidence that the language has adjectives, but a lack of such elements does not indicate that it does not have adjectives.¹⁰

4.2.2 Resultative secondary predication

Further evidence that Fijian has adjectives is provided by its ability to form resultatives using secondary predication, exemplified in the (c) sentences below.

- (23) a. e sa cevata na wai.
 3SG MOD freeze ART water
 'The water froze.'
- b. e sa kaukaua na wai.
 3SG MOD hard ART water
 'The water is hard/solid.'
- c. e sa cevata kaukaua na wai.
 3SG MOD freeze hard ART water
 'The water froze solid.'

¹⁰ For brief discussion of the implications of the view that Fijian lacks degree morphology for our understanding of the semantics of (gradable) adjectives, see Appendix II.

- (24) a. e a vakasaqara na ika 'o Jone
 3SG PAST cook ART fish PERS.ART John
 'John cooked the fish.'
- b. e qesa na ika.
 3SG burnt ART fish
 'The fish is burnt.'
- c. e a vakasaqara na ika qesa 'o Jone
 3SG PAST cook ART fish burnt PERS.ART John
 (i) 'John cooked the fish to a crisp.' (Lit: 'John cooked the fish burnt.')

Note that (24c) is ambiguous between a resultative reading (i) and one in which *qesa* is not a secondary predicate but rather a nominal modifier (ii). We encountered two instances where only the second reading is available.

- (25) e a boroya na vale vulavula 'o Jone.
 3SG PAST paint ART house white PERS.ART John
 'John painted the white house.'
 ≠ 'John painted the house white.'
- (26) e a tukitukia na kaukamea mamare 'o Jone
 3SG PAST hammer ART metal flat PERS.ART John
 'John hammered the flat metal.'
 ≠ 'John hammered the metal flat.'

One might ask whether these cases undermine the case for Fijian permitting secondary predication. Let us emphasize that our objective is not to show that Fijian has as extensive an inventory of adjectives as English does. Our more modest goal is to show that the Fijian adjective class has members, no matter how many or few. We take it that the items that can occur as secondary predicates in resultative constructions, such as *kaukaua* and *qesa*, are adjectives; the lack of ambiguity in (32) and (33) suggests that *vulavula* and *mamare* are stative verbs. This is a surprising result in itself, given Dixon's (2004) conjecture that color and dimension terms are prototypical members of adjective inventories, even those that are small. We leave as a matter for future research the question whether there are other languages that do not conform to Dixon's generalization. For now, we shall simply close this section by observing that the admittedly limited availability of resultative secondary predication in Fijian constitutes evidence that it has adjectives.

5 On the syntax of the Fijian adjective.

We have seen that Fijian has a lexical category 'adjective', which we shall treat as heading a projection labelled AP. We propose that adjectival modification involves no hidden relative

clause structure, but rather the AP right-adjoins directly to the NP, so that *na goneyalewa balavu* ('the tall girl') has the structure in (27).

(27) [_{DP} na [_{NP} [_{NP} goneyalewa] [_{AP} balavu]]]

What of the predicative behavior of adjectives in Fijian? Recall that one difference between Fijian and English that we had to account for was the ability of Fijian adjectives (and nouns for that matter) to combine with agreement and tense morphology. We shall consider two possible explanations for this phenomenon.

One option is to echo the position Richards (2009) argues for in his work on Tagalog, and say that Fijian has a null copula. A consequence of this view would be that the AP is embedded within a verbal projection, and that it is this constituent that combines with tense and person/number markers. A further advantage is that we could then explain the apparent lack of a verb in predicate nominal sentences along similar lines. There would be no need to follow the route taken by Dixon (2004), of postulating verbless clauses with two DPs in apposition.

An alternative is to implement an idea discussed in Baker (2005). Baker proposes that what distinguishes verbs on the one hand from nouns and adjectives on the other is that only verbs have an external argument within their own projection. With nouns and adjectives, the relationship between 'predicate' and subject is mediated by additional structure in the form of a Pred(icate) Phrase. Schematically:

(28) a. [_{TP} Subj₁ [_{T'} [_{VP} t₁ [_{V'} V]]]]
 b. [_{TP} Subj₁ [_{T'} [_{PredP} t₁ [_{Pred'} Pred [_{AP} Adj]]]]]
 c. [_{TP} Subj₁ [_{T'} [_{PredP} t₁ [_{Pred'} Pred [_{NP} N]]]]]

Baker assumes that verbs combine with their inflectional morphology in T by head movement. What prevents adjectives and nouns from doing the same, he says, is that Pred acts as an intervener for head movement, so that displacement of an adjective or noun would violate the Head Movement Constraint. Suppose that the syntax of predication in Fijian works in just the same way, except that since the language displays a fairly high degree of analyticity and uses free-standing function words rather than affixes to encode agreement and tense, no movement is required in order for a lexical category to combine with an agreement or tense marker. Hence the role of Pred as a potential intervener is irrelevant, and verbs, adjectives and nouns are all free to co-occur with tense and agreement markers. It is this property that initially made us suspect that Fijian may use verbs where English has adjectives, but it has turned out to be a red herring.

It is beyond the scope of the present paper to determine which of the two accounts discussed above is the correct one for Fijian. We leave this as a question to be addressed in future work.

6 Conclusion

We find ourselves on the side of Baker's claim that languages can vary with respect to their inventory of functional categories, but not in terms of the lexical categories that they make available: Fijian has adjectives, and we think it possible that this may be true of all languages.

We have also discussed a variety of diagnostics for adjective-hood that have the advantage of being applicable to all languages. For example, one can search for privative and subsecutive adjectives in any language; unlike, say, Baker’s test concerning degree morphology, the appropriateness of this diagnostic is not dependent on the language having some other property. Overall, then, we are now in a better position to test against other under-studied languages the hypothesis that ‘adjective’ is a universal syntactic category.

Appendix I

The composition rules assumed in this paper are:

Functional Application

If α is a branching node, $\{\beta, \gamma\}$ is the set of α ’s daughters, and $\llbracket \beta \rrbracket$ is a function whose domain contains $\llbracket \gamma \rrbracket$, then $\llbracket \alpha \rrbracket = \llbracket \beta \rrbracket (\llbracket \gamma \rrbracket)$. [Heim and Kratzer 1998:44]

Predicate Modification

If α is a branching node, $\{\beta, \gamma\}$ is the set of α ’s daughters, and $\llbracket \beta \rrbracket$ and $\llbracket \gamma \rrbracket$ are both in $D_{\langle e, t \rangle}$, then $\llbracket \alpha \rrbracket = \lambda x \in D_e. \llbracket \beta \rrbracket (x) = \llbracket \gamma \rrbracket (x) = 1$. [Heim and Kratzer 1998: 65]

Predicate Abstraction

Let α be a branching node with daughters β and γ , where β dominates only a numerical index i . Then, for any variable assignment a , $\llbracket \alpha \rrbracket^a = \lambda x \in D_e. \llbracket \gamma \rrbracket^{a x/i}$. [Heim and Kratzer 1998:186]

What follows is a proof that *tall girl* and *girl that is tall* are equivalent. The lines of the proof also furnish examples of the application of the rule of Predicate Modification, which is taken to be responsible for determining the interpretation of modified structures.

- | | | | |
|--------|---|---|--|
| (i) a. | $\llbracket \text{tall girl} \rrbracket$ | = | (by Predicate Modification) |
| | $\lambda x. \llbracket \text{tall} \rrbracket (x) = \llbracket \text{girl} \rrbracket (x) = 1$ | = | (by meaning of <i>tall</i> & <i>girl</i>) |
| | $\lambda x. [\lambda y. y \text{ is tall}](x) = [\lambda z. z \text{ is a girl}](x) = 1$ | | |
| b. | $\llbracket [\text{girl } [wh_1 \text{ that } t_1 \text{ is tall}]] \rrbracket$ | = | (by Predicate Modification) |
| | $\lambda x. \llbracket \text{girl} \rrbracket (x) = \llbracket wh_1 \text{ that } t_1 \text{ is tall} \rrbracket (x) = 1$ | = | (by lexical entry of <i>girl</i>) |
| | $\lambda x. [\lambda y. y \text{ is a girl}](x) = \llbracket wh_1 \text{ that } t_1 \text{ is tall} \rrbracket (x) = 1$ | = | (by Predicate Abstraction) |
| | $\lambda x. [\lambda y. y \text{ is a girl}](x) = [\lambda z. z \text{ is tall}](x) = 1$ | | |

Appendix II

We shall make a few remarks about the implications of the view that Fijian does not have degree morphology for our understanding of the semantics of Fijian adjectives. In Pearson (forthcoming), we propose to capture this fact by assuming that Fijian has the negative setting of the Degree Semantics Parameter of Beck et al. 2010. That is, we propose that the language does not have lexical items that introduce degree arguments; hence its adjectives are of type $\langle e, t \rangle$ rather than type $\langle d, \langle e, t \rangle \rangle$. However, given that one theme of the present work is to argue for the

viability of ‘adjective’ as a universal category, it seems desirable to give a corresponding universal semantics for (gradable) adjectives as well. This means abandoning the assumption that adjectives may have different logical types in different languages. What we cannot give up, however, is the view that Fijian adjectives are not of type $\langle d, \langle e, t \rangle \rangle$: this would require that they combine with (overt or covert) degree morphology, and we have said that they do not. The alternative is to say that Fijian adjectives, and in fact all adjectives across all languages, are of type $\langle e, t \rangle$ and not type $\langle d, \langle e, t \rangle \rangle$ as has been traditionally assumed.¹¹ On this view, what differentiates Fijian from English is not the type of the adjective, but rather a syntactic property: whether or not the language has degree heads. Note that this sits perfectly comfortably with Baker’s view that languages are all alike with respect to their inventories of lexical categories, but may vary in the functional categories that they have at their disposal. The idea would be that in English, the adjective is of type $\langle e, t \rangle$, but undergoes a type shift in order to render it suitable to combine with degree morphology. To enter into the details of this proposal would take us too far afield, but let me note that it has the virtues of saving us from positing different semantic types for the same lexical category across different languages, and of disposing of the need to posit a semantic parameter, with cross-linguistic variation in this domain a consequence of the presence or absence of a particular syntactic category.

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¹¹ Kennedy (2007) raises this possibility in passing. It has not yet been pursued in detail as far as I am aware.

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