

Explicit comparison in Fijian¹

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Abstract. Across languages, comparative constructions vary according to whether they are morphologically *explicit* or *implicit*, a cut based largely on the availability of a degree morpheme corresponding to English *-er/than* (Kennedy, 2007). Based on diagnostics from that work, it has been claimed that Fijian comparatives are always of the *implicit* type and, more strikingly, that the language therefore lacks degrees in its ontology (Pearson, 2009). I argue that neither of these are the correct conclusions to be drawn for Fijian. First, Fijian does in fact make use of an explicit comparative that makes use of a dedicated degree morpheme. Second, Fijian passes a variety of diagnostics for degreefulness that are not specific to comparatives, but whose presence are generally believed to require degrees in their semantics (Beck et al., 2009). In addition to presenting these arguments for the status of Fijian as a degreeful language, I also propose a preliminary direct phrasal analysis to account for the language’s explicit comparative.

Keywords: explicit vs. implicit comparison, degrees, DSP, phrasal comparatives, Fijian.

1. Introduction

Across languages, comparatives vary according to whether they are *explicit* or *implicit* (Kennedy, 2007).² *Explicit* comparison on the one hand refers to comparatives that make use of dedicated comparative morphology, e.g., synthetic *-er* or analytic *more* in English. This type of comparative is the best studied in the literature, and is exemplified through the Hungarian in (1).

- (1) István magas-**abb** [mint Péter].
Istvan tall-CMPR than Peter
‘Istvan is taller than Peter.’ (Stassen, 1985: 46)

On the other hand, *implicit* comparison refers to constructions in which no dedicated comparative morphology is used to give rise to a comparative meaning. Kennedy (2007) offers examples of the following form in English, in which no comparative morphology is employed:

- (2) Compared to Lee, Kim is tall. (Kennedy, 2007: 17)

Cross-linguistically, implicit comparison is often found in the form of *conjoined* comparatives (Stassen, 1985), which are formulated such that some property is ‘true of *x* and false of *y*.’ Washo (Hokan/isolate; USA) is one language that makes use of this strategy, as shown in (3):

- (3) dawp’ápil de-ʔil-léleg-iʔ Mí:gi-ʔáɲaw-iʔ-i
flower NMLZ-ATTR-red-ATTR 3.look-good-ATTR-IND
de-ʔil-c’ác’imi-iʔ Mí:gi-ʔáɲaw-iʔ-é:s-a-š
NMLZ-ATTR-yellow-ATTR 3.look-good-ATTR-NEG-DEP-DS
‘The red flower is prettier than the yellow one.’
=‘The red flower’s pretty, while the yellow one’s not pretty.’ (Bochnak, 2013: 164)

¹I thank Eroni Lomata, who is the source of any unsourced Fijian data. I also thank Andrew Koontz-Garboden, Ryan Bochnak, Margit Bowler, Vera Hohaus, and Lisa Matthewson for helpful discussions, as well as the audiences at *Sinn und Bedeutung* 24 in Osnabrück and the 2019 *LAGB* meeting at QMUL. This work is supported by European Research Council Consolidator Grant ERC-2017-COG 769192 (P.I. Andrew Koontz-Garboden).

²Terminology adopted from Sapir (1944).

Notably, comparative type has often been invoked to inform on the status of degrees in the ontology of a language, with a broad assumption in the literature that the use of explicit comparison correlates with the existence of degrees in the construction. The flipside of this is that implicit comparison has been argued to correlate with a *lack* of degrees in the language altogether (Motu, Beck et al., 2009; Washo, Bochnak, 2015; Warlpiri, Bowler, 2016).³ The starting point for this observed correlation is that the presence or absence of degrees in the ontology of a given language has been independently proposed to be a parameter cross-linguistically:

(4) **Degree Semantics Parameter**

A language {does, does not} have gradable predicates (type $\langle d, \langle e, t \rangle \rangle$ and related), i.e. lexical items that introduce degree arguments. (Beck et al., 2009: 19)

Crucially, languages proposed to lack degrees (i.e., [-DSP] languages according to Beck et al.'s 2009 terminology) seem to be rare, and therefore constitute important test cases for evaluating the reach of this parameter. In a direct contribution to this ongoing discussion, Pearson (2009) proposes that Fijian (Oceanic) has implicit comparison, and is accordingly [-DSP]. Her claims are i) Fijian is an implicit comparison language; ii) even though Fijian passes some tests for degreefulness, this is misleading; and iii) Fijian is another example of a [-DSP] language.

In what follows, I argue against each of these conclusions. To do this, I first show that Fijian comparatives are explicit in their morphosyntactic properties, though Fijian does have an altogether separate implicit comparative. Second, I show that Fijian makes use of degrees, evidenced both in that its comparatives pass Kennedy's tests for degreeful comparison and in that other constructions in Fijian signify the presence of this semantic type. Finally, I provide a brief and preliminary direct account of Fijian comparatives along the lines of Potsdam (2011) and Bhatt and Takahashi (2011), which follows from syntactic restrictions on the standard marker.

2. Explicit comparatives in Fijian

Fijian is an Oceanic language with approximately 400,000 native speakers in Fiji. The neutral word order of the language is VOS/VSO (Dixon, 1988). The primary strategy for comparison in Fijian is shown in (5), where the gradable predicate is marked in bold and the standard of comparison is marked in italics.⁴ In such comparatives, the form of the adjective may be bare (e.g., *bibi* 'heavy'), and the standard of comparison follows the preposition *mai* 'from' (constituting a 'separative' comparative in the terminology of Stassen, 1985):⁵

- (5) Na vatu oqo e **bibi** [*mai na vatu oqori*].
 ART rock this 3.SG heavy from ART rock that
 'This rock is heavier than that rock.'

I begin with the question of how this type of comparative fares with the explicit vs. implicit distinction described by Kennedy (2007). According to Kennedy's description, explicit comparison languages are identified on morphosyntactic grounds, based on the existence of a dedicated comparative morpheme corresponding to English *-er/more*. This is described in (6):

³Though see Bochnak (2015) for some problems for this correlation, with specific reference to Motu.

⁴Glosses: ART: article (van Urk, 2019), DIR: directional, INTNS: intensifier, PN: proper name marker. Unless otherwise noted, data come from the author's elicitation sessions with a native speaker from Suva.

⁵When this preposition precedes a proper name, it is expressed alongside another directional marker as *mai-vei*.

(6) **Explicit comparatives**

Establish an ordering between objects *x* and *y* with respect to gradable property *g* using a morphosyntactic form whose conventional meaning has the consequence that the degree to which *x* is *g* exceeds the degree to which *y* is *g*. (Kennedy, 2007: 16)

Implicit comparison languages are conversely identified by the lack of a dedicated comparative morpheme, as described in (7):

(7) **Implicit comparatives**

Establish an ordering between objects *x* and *y* with respect to gradable property *g* using the positive form by manipulating the context in such a way that the positive form is true of *x* and false of *y*. (Kennedy, 2007: 16)

Crucially here, Pearson (2009) argues that, according to (7), Fijian is an implicit comparison language, as there is no comparative morpheme in examples such as (5). However, it is important to note that while there is no obligatory *-er/more*, this does not rule out potentially silent comparative morphology: Optional comparative morphemes are found cross-linguistically, e.g., in certain contexts in Hindi (8) and across the board in Malagasy (9) (see also Samoan (Hohaus, 2015); Hebrew (Schwarzschild, 2014); Nez Perce (Deal and Hohaus, 2019)).

(8) Atif [Boman-se] (**zyaadaa**) lambaa hai.

Atif Boman-from more tall is

‘Atif is taller than Boman.’

Hindi; (Bhatt and Takahashi, 2011: 591)

(9) Lava (**kokoa**) [noho ilay zaza] Rabe.

long more than that child Rabe

‘Rabe is taller than that child.’

Malagasy; (Potsdam, 2011: 140)

Crucially, Fijian likewise makes use of an optional morpheme *cake* as in (10), literally ‘up/above’, which can be translated in comparatives as ‘more’ (see also Milner, 1976):⁶

(10) E katakata **cake** 'o Viti [mai-vei Peritaania].

3.SG hot **more** PN Fiji from-DIR.PN Britain

‘Fiji is hotter than Britain.’

While Pearson does not address data with *cake*, I argue here that the availability of this morpheme in the separative comparative places Fijian squarely in the category of languages with comparative morphology, i.e., explicit comparison languages.⁷

It is important moreover that Fijian likewise makes use of an additional, implicit comparative of the conjoined type, exemplified in (11). This type of comparative differs clearly from the explicit type introduced above in that it involves conjunction, and fits the description in (6).⁸

⁶Likewise cited by Dixon (1988) for Boumaa Fijian, a different variety.

⁷I also note that this description of explicit comparison puts all the semantic work of the comparative into the comparative morpheme itself. There have however been recent arguments that the standard marker, in this case *mai* ‘from’, also plays a semantic role in comparison (see Alrenga et al., 2012). Such a view calls into question the classification of explicit comparison languages according to the presence of a comparative morpheme alone.

⁸Comparatives of this type are accepted but dispreferred by my consultant, who finds them antiquated.

- (11) E levu ko Suva, ka lailai ko Lautoka.
 3.SG large PN Suva but small PN Lautoka
 ‘Suva is larger than Lautoka.’
 =‘Suva is large, but Lautoka is small.’ (Milner, 1976: 29)

In light of the availability of the comparative morpheme *cake*, in conjunction with the existence of an independent implicit comparative, Pearson’s claim that Fijian lacks explicit comparison becomes untenable. As hinted at in the introduction however, Pearson takes this claim further and argues that Fijian is a degreeless language based on the absence of an explicit comparative.

Importantly, the existence of *cake* does not immediately rule out a degreeless analysis, the second part of Pearson’s claim. The explicit vs. implicit distinction is a morphosyntactic one, and therefore does not immediately tell us about the status of degrees in the ontology of a language; this correlation is often implicitly assumed (e.g., in Kennedy, 2007), but not necessarily warranted. In the next section, I summarize the logic behind this assumed correlation before turning to the semantic tests that lend support to the presence of degrees in the Fijian.

3. Degrees in the ontology

The proposed correlation in the literature between the explicit/implicit distinction and degreefulness often draws its logic from the availability of both degreeful and degreeless analyses of gradable predicates. The basic idea is that languages with explicit comparison have adjectives that should be analyzed with a degree semantics, while those with implicit comparison have degreeless gradable predicates and, as a result, exhibit different morphosyntactic behaviors. In a nutshell, the lack of degrees in the semantics translates to a lack of degree morphology.

3.1. Degreeful analyses of explicit comparison

One of the most widely adopted analyses of gradable predicate meanings invokes degrees by necessity in the ontology (i.a. Cresswell, 1977; von Stechow, 1984; Heim, 1985; Kennedy and McNally, 2005). On this type of analysis, a gradable predicate is a relation between individuals and degrees, of type $\langle d, \langle e, t \rangle \rangle$ (where **tall**(*x*) refers to *x*’s height):

- (12) $[[\text{tall}]]: \lambda d_d \lambda x_e [\text{tall}(x) \geq d]$

Degrees are ordered along some measurement scale, e.g., in (12), a scale of tallness. The comparative morpheme then makes use of the degree variable introduced by the adjective in establishing an ordering between two maximal degrees along the measurement scale, as in (13):

- (13) $[[\text{more}]]: \lambda P_{\langle d, t \rangle} \lambda Q_{\langle d, t \rangle} [\text{MAX}(Q) > \text{MAX}(P)]$

Following this analysis, the comparative in (14a) will then be assigned the meaning in (14b):

- (14) a. Sarah is taller than Mary.
 b. $\text{MAX}(\lambda d. \text{tall}(\text{Sarah}) \geq d) > \text{MAX}(\lambda d'. \text{tall}(\text{Sarah}) \geq d')$

On the degree-based analysis of comparatives, degrees are required to establish the height (in this case) of one individual relative to the height of another, along an ordered scale of measurement. On this analysis, degrees are inherent to the meaning of gradable predicates, and may be manipulated by degree morphemes such as MORE to give rise to a comparative meaning.

3.2. Degreeless analyses of implicit comparison

A prominent alternative to degree-based analyses of gradable predicates is the *vague predicate* analysis (Kamp, 1975; Klein, 1980; van Rooij, 2011a). On this view, gradable predicates do not make reference to degrees but are contextually-determined sets of individuals, of type $\langle e, t \rangle$:⁹

$$(15) \quad \llbracket \text{tall} \rrbracket^c: \lambda x_e [\text{tall}(x) \text{ in } c]$$

On this view, comparatives then existentially quantify over possible values of c without making reference to any ordering along a scale, as in (16) (modified from Bochnak, 2013: 53):

$$(16) \quad \llbracket \text{Sarah is taller than Mary} \rrbracket: \exists c [\text{tall}(\text{Sarah}) \text{ in } c \ \& \ \neg \text{tall}(\text{Mary}) \text{ in } c]$$

The relative heights of Sarah and Mary are determined not with reference to orderings of degrees, but through context. The proposition in (16) will therefore be true in any context in which Sarah counts as tall, and Mary does not. On this analysis, gradable predicates do not introduce degrees, and comparative morphology simply relates these predicates to a particular type of context (Klein, 1980; see also Deal and Hohaus, 2019).

3.3. Connection to the explicit vs. implicit distinction

Returning to the explicit vs. implicit distinction, the connection between comparative type and degreefulness finds its roots in the basic idea that degree morphology is parasitic on degree variables in the semantics. The comparative morpheme is one such instance of this degree morphology, leading to degree-based analyses of explicit comparison languages. If on the other hand implicit comparison languages are degreeless, then the lack of degrees removes the possibility for degree morphology, explaining why such languages lack comparative morphemes.¹⁰

It is by this logic that Pearson (2009) analyzes Fijian as degreeless: Fijian lacks an explicit comparative, as it lacks MORE, and is accordingly a [-DSP] language. Following many authors, Pearson proposes a modified vague predicate analysis à la Klein. The problem with this logic is that morphosyntax does not tell us everything; there are problems for the implicitly assumed correlation between the type of comparative a language employs and whether it makes use of degrees (see also Bochnak, 2015). When evaluating whether a language lacks degrees, semantic tests are therefore crucial in addition to any morphosyntactic classification.

4. Semantic diagnostics for degreefulness

In this section I show that Fijian passes tests for degreefulness both from comparatives specifically as well as from language-wide diagnostics summarized by Beck et al. (2009), providing evidence against the classification of Fijian as a degreeless language.

⁹Whether an individual counts as *tall* in a context is established through a partitioning of the domain into individuals that are *tall*, *not tall*, or *neither*.

¹⁰While the vague predicate analysis was proposed originally for English and not implicit comparison *per se*, it has been adopted by many authors to account for this comparative type (e.g., Beck et al. 2009, Bochnak 2015, Bowler 2016). Though see Deal and Hohaus (2019) for a degreeless analysis of explicit comparatives in Nez Perce).

4.1. Tests from comparatives

Kennedy (2007) provides tests for the presence of degrees in comparatives (s.a. Bochnak, 2015). His tests are based on the comparison strategies in English shown in (17a-b), which I will compare to data from Fijian throughout this section.

- (17) a. Kim is taller than Lee. *Explicit comparison*
 b. Compared to Lee, Kim is tall. *Implicit comparison*

The tests Kennedy provides come from i) differential comparatives; ii) absolute standard adjectives; iii) crisp judgments; and iv) negative implicatures to the positive form. Below, I show that Fijian passes these tests (though I do not discuss (iv)).¹¹ Along the way, I compare data from my consultant not only to English but also to the data presented by Pearson (2007). In some cases, the judgments differ, an issue I return to in Section 4.4.

4.1.1. Differential comparatives

The first test for degreefulness comes from differential comparison, exemplified in (18).

- (18) John is *six inches* taller than Mary.

The relevance of this test is that measurement along a scale is a hallmark of degrees (see also Deal & Hohaus 2019), which is found precisely in differential measure phrases like *six inches*.

While Pearson (2009) treats the test for differential comparatives to be a *syntactic* one – on the assumption that the measure phrase occupies the specifier of DegP (e.g., Schwarzschild, 2008), which requires the presence of Deg – this diagnostic is crucially better understood as a *semantic* test, in that differential comparatives require some notion of *degree measurement* along the lines of (19) (from von Stechow, 1984, adopting the proposal in Hellan, 1981):

- (19) $\exists d_1, d_2, d_3$ [John is d_1 -**tall** & Mary is d_2 -**tall** & $d_1 = d_2 + d_3$ -**tall** & $d_3 = 6$ inches]

In (19), the measure phrase *6 inches* is treated as degree-denoting. Such measurement phrases pose a problem for the vague-predicate analysis, which does not invoke the presence of degrees, and which therefore has difficulty in capturing addition along an ordered scale (though see van Rooij, 2011b for a degreeless treatment).

The prediction from this test is then that only degreeful comparatives allow for differential comparatives. This is borne out in English:

- (20) a. Kim is 10cm taller than Lee. *Explicit*
 b. ??Compared to Lee, Kim is 10 cm tall. *Implicit*

Fijian comparatives also license differential measure phrases, shown in (21) and (22):

- (21) 'o Meri e qase [mai-vei Pita] e **na dua na yabaki**.
 PN Mary 3.SG old from-DIR.PN Peter 3.SG ART one ART year
 'Mary is one year older than Peter.' (Pearson, 2009: 361)

¹¹ Pearson (2009) addresses other tests that I do not discuss here, as the judgments were all rejected by my speaker.

- (22) na vatu oqo e bibi **va-na dua na kilo** [mai va-na vatu oqori].
 ART rock this 3.SG heavy DIR-ART one ART kilo from DIR-ART rock that
 ‘This rock is one kilo heavier than that rock.’

While Fijian passes this particular test, Pearson (2009) argues that a degreeless language could in principle encode differential measure phrases by means of an adjunct *by*-phrase like that in (23), and therefore rejects this test as evidence for degrees in Fijian.

- (23) Peter missed the target **by 2cm**. (Pearson, 2009: 365)

Pearson offers an analysis that makes use of a measure function as well as a relational variable *R* relating the measure phrase to the subject of the predicate. As the examples in (21)–(22) show, the position of the measure phrase in Fijian is not an obvious one of a measure phrase in specifier position, given the absence of an overt comparative degree head. However, this test does not rest on syntactic grounds alone: Schwarzschild (2008) argues for example that *by*-phrases along the lines of (23) are another type of degree modifier and are not in fact degreeless, meaning that a syntactic location in Spec, DegP is not a necessary condition for the existence of differential measure phrases. If we adopt a degreeful analysis for Fijian, it is no longer a mystery why Fijian allows differential measure phrases, and no extra machinery is required.

4.1.2. Crisp judgments

The second test comes from crisp judgment contexts, which involve comparison of two objects that are very (and possibly imperceptibly) close in measurement. This particular test targets the inherent vagueness of gradable predicates: When two objects are very close in measurement along some scale, the predictions vary for degreeful vs. degreeless accounts. This test draws on a crucial property of gradable adjectives: vagueness. That gradable adjectives are vague can be seen in the following contrast, in which what counts as *tall* depends on the context:

- (24) Maria is 5’8”/173 cm tall.
 a. *Context: A group of women of average height*
 Mary is tall.
 b. *Context: A group of women in the WNBA*
 #Mary is tall.

On degree-based accounts, vagueness effects are the result of POS, a silent morpheme that gradable adjectives must compose with in order to become predicates. Crucial here is the fact that the meaning of an adjective on its own is not vague (26a), but inherits a context-sensitive meaning only after combining with POS, as in (25):

- (25) $\llbracket \text{POS} \rrbracket: \lambda g_{\langle d, \langle e, t \rangle \rangle} \lambda x_e. \exists d [d > s_G \ \& \ G(d)(x)]$ (Bochnak, 2015: 63)

In (25), s_G is the contextual standard for *G*, which varies according to the appropriateness of the context when an adjective is used in its positive form, giving rise to the observed vagueness effects. The derivation for the combination of an adjective like *tall* with POS is shown in (26), which demonstrates that the vagueness of adjectival predicates is captured entirely by composition with POS:

- (26) a. $\llbracket \text{tall} \rrbracket: \lambda d_d \lambda x_e [\mathbf{tall}(x) \geq d]$
 b. $\llbracket \text{POS} \rrbracket: \lambda g_{\langle d, \langle e, t \rangle \rangle} \lambda x_e. \exists d [d > s_G \ \& \ G(d)(x)]$
 c. $\llbracket \text{POS tall} \rrbracket: \lambda x_e. \exists d [d > s_G \ \& \ \mathbf{tall}(x) \geq d]$

In the case of comparatives the other hand, vagueness is never introduced, as the gradable predicate composes with COMP rather than POS (the comparative is not built on the positive form). Crucially, no vagueness is built into the meaning of COMP; the comparative requires only an asymmetric ordering of maximal degrees along some scale (repeated from (14b)):

- (27) $\llbracket \text{Sarah is taller than Mary} \rrbracket: \text{MAX}(\lambda d. \mathbf{tall}(\text{Sarah}) \geq d) > \text{MAX}(\lambda d'. \mathbf{tall}(\text{Sarah}) \geq d')$

On the vague predicate analysis by contrast, vagueness is *always* present, as context sensitivity is built into the meaning of the predicate itself, and is not introduced by a POS morpheme:

- (28) $\llbracket \text{tall} \rrbracket^c: \lambda x_e [\mathbf{tall}(x) \text{ in } c]$ =(15)

Because gradable predicates are always vague, this means that vagueness should persist in comparatives, which involve existentially quantifying over possible values of c , and which therefore do not preclude context-sensitivity as on the degreeful analysis:

- (29) $\llbracket \text{Sarah is taller than Mary} \rrbracket: \exists c [\mathbf{tall}(\text{Sarah}) \text{ in } c \ \& \ \neg \mathbf{tall}(\text{Mary}) \text{ in } c]$ =(16)

The relevance of this difference for the crisp judgments test is tied to the so-called *similarity constraint* on vague predicates and its relation to the Sorites Paradox (Klein, 1980; Fara, 2000; Kennedy, 2011), as described in (30):

(30) **Similarity Constraint**

When x and y differ only to a very small degree in the property that a vague predicate G is used to express, speakers are unable or unwilling to judge the proposition that x is G true and y is G false. (apud Bochnak, 2015: 12)

Because comparatives on the degree-based account do not involve vagueness, they should not be subject to the similarity constraint; on the vagueness-based account the similarity constraint should hold even in comparatives. The prediction for this diagnostic is then that only degreeful comparatives support crisp judgments, i.e., comparatives that target a small difference. If the predicates within the comparative are vague (as on the vague predicate analysis), then speakers should be unwilling to accept the comparative as felicitous.

This prediction is borne out in English:

- (31) *Context: Essay A is 600 words; Essay B is 597 words.*
 a. Essay A is longer than Essay B. *Explicit*
 b. #Compared to Essay A, Essay B is long. *Implicit*

It is also borne out in Fijian, as shown with the contexts in (32) and (33).

- (32) *Context: Peter is 2cm taller than Mary*
 e lekaleka o Meri [mai-vei Pita].
 3.SG short PN Mary FROM-PN Peter
 ‘Mary is shorter than Peter.’ (Pearson, 2009: 361)

- (33) *Context: William is 70 and Timothy is 69.*
 e qase [mai-vei Tomoci] ko Wiliame.
 3.SG old from-DIR.PN Timothy PN William
 ‘William is older than Timothy.’

As with differential comparatives and absolute standard adjectives, the upshot is that Fijian patterns with degreeful languages with respect to crisp judgments. In order to explain these data against the backdrop of a degreeless analysis of Fijian, Pearson (2009) argues that the purpose of the standard marker *mai* is to reduce the context set to the two compared objects (see also Bowler, 2016; Deal and Hohaus, 2019), which explains why vagueness is tolerated in comparatives.

First however, it is unclear why a reduction of individuals in the context should alleviate the Similarity Constraint, as both predicates under question are still vague and very close in measurement. Further, if this were the right analysis, then there would be nothing to distinguish comparatives in a language like Fijian, which do support crisp judgment contexts, from implicit comparatives in a language like English (or Washo, Bochnak, 2015), which do not. I therefore reject this proposal and argue that we can best understand the Fijian data if we adopt a degreeful account of comparatives in the language.

4.1.3. Absolute standard adjectives

The final test I discuss in this paper comes from absolute standard adjectives. Importantly here, the observation is that not all gradable adjectives have context-dependent standards in the positive form (Rotstein and Winter, 2004; Kennedy and McNally, 2005; Kennedy, 2007). Certain adjectives have instead a *minimum value* as their standard of comparison, e.g. (*wet, open, bent*):

- (34) x is bent is true as long as x has a non-zero degree of bend.

The standard of evaluation for the positive form of such adjectives is fixed to the minimum endpoint on a scale, regardless of the context. This lack of context-sensitivity is incompatible with the vague predicate analysis of comparatives, as such an analysis makes no reference to scales, only context. On the degreeful analysis of comparatives on the other hand, the predicate is not vague and is therefore not context-sensitive.

The prediction here is then that only degreeful comparatives are compatible with minimum standard predicates, as they require no reference to the context. Again, Kennedy points out that this prediction is borne out in English.

- (35) a. *Context* (Kennedy 2007: 20):

Rod A:  Rod B: 

- b. Rod B is more bent than Rod A. *Explicit*
 c. ??Compared to Rod A, Rod B is bent. *Implicit*

For this particular test, the results from Fijian are mixed. Absolute adjectives are perfectly felicitous in comparatives for my consultant, as shown in (36).

- (36) e **takelo** vaka levu na vaivo oqo [mai na vaivo oya].
 3.SG bent EMPH big ART pipe this from ART pipe that
 ‘This pipe is (much) more bent than that pipe.’

However, similar examples are infelicitous for Pearson’s speaker(s) (2009):

- (37) #e **takelo** na vaivo oqo [mai na vaivo oya].
 3.SG bent ART pipe this from ART pipe that
 Intended: ‘This pipe is more bent than that pipe.’ (Pearson, 2009: 361)

The result here is that minimum standard predicates are felicitous in Fijian comparatives – at least for some speakers – a result that is not predicted on the vague predicate analysis, but which is predicted by a degree analysis (I return to the issue of conflicting judgments in Section 4.4). The upshot however is that the data from absolute standard adjectives lend further evidence for a degreeful analysis of Fijian.

4.2. The Degree Semantics Parameter

Moving beyond Kennedy’s tests, diagnostics for degreefulness go beyond the domain of comparatives. The Degree Semantics Parameter (Beck et al., 2009) is based on the idea that languages may either have or lack degrees altogether, across all constructions:

- (38) **Degree Semantics Parameter**
 A language {does, does not} have gradable predicates (type $\langle d, \langle e, t \rangle \rangle$ and related), i.e. lexical items that introduce degree arguments. (Beck et al., 2009: 19)

The major result of this work is the proposal that certain constructions require degree variables in their meanings, and that if these constructions are found in a language, the language must make use of degrees in its ontology (Beck et al. 2009: 18). Languages with constructions such as those in (39) and (40) are [+DSP], while languages lacking these constructions on the other hand lack degree variables and should be classified as [-DSP].

- (39) **Expressions that plausibly manipulate degree arguments:**
 Comparative, superlative, and equative morphemes.
- (40) **Expressions that plausibly refer to degrees and combine with degree operators:**
 Degree questions (*how tall*), comparison with a degree (*taller than three feet*).

Importantly, while Pearson (2009) does not engage with Beck et al.’s (2009) diagnostics that extend beyond comparatives, Fijian does exhibit a number of these constructions. For example, in relation to the class of expressions described in (40), Fijian has degree questions, which involve quantification over a degree variable by a *wh*-operator (Rullmann, 1995) (41), as well as comparison to a degree, in which the standard itself refers to a degree (42).

- (41) *Degree question*
 E **vakacava na balavu** ni yalewa?
 3.SG how ART height GEN woman
 ‘How tall is the woman?’

(42) *Comparison to a degree*

Nai vola e balavu [mai va-na **tolu ga na drauniveva**].

ART.GEN book 3.SG long from DIR-ART three only ART page

‘The book is longer than just three pages.’

The conclusion here is that even outside of comparatives, Fijian passes a number of tests for degreefulness. These data should therefore be taken into consideration as well when evaluating the status of Fijian as a [+/-DSP] language.

4.3. Upshot

The aim of the previous section has been to show that Fijian is neither a solely implicit comparison language, nor a [-DSP] language. First, Fijian passes Kennedy’s (2007) tests for degreeful comparison, with results that should not be treated as exceptions warranting alternative explanations. Second, Fijian passes Beck et al.’s (2009) diagnostics for degreefulness beyond the domain of comparatives. Following Occam’s razor, a revised semantics is not needed to explain why Fijian behaves this way: The language makes use of degrees.

4.4. A note on diachrony

Before moving on to an analysis of explicit comparatives in Fijian, a note on diachrony is in order. It has been demonstrated that Samoan, another Oceanic language, historically made use of implicit comparatives, but now only uses the explicit strategy (Hohaus, 2018). Fijian may well be on this path, considering that the implicit construction is no longer used by all speakers, with the explicit construction being the dominant one.

We also find a similarity in the comparative morpheme across the two languages: Like Fijian *cake*, the *-er/more* morpheme *atu* in Samoan is a directional element, suggesting a similar path to grammaticalization (see Hohaus for an analysis of this path).

(43) e umi **atu** Temukisa i [lō Malia].

3.SG tall DIR Temukisa PREP COMP Mary

‘Temukisa is taller than Mary.’

(Hohaus, 2018: 110)

The variation in judgments for different speakers of Fijian potentially indicates a changing system in the language. The presence of both constructions in a single language raises exciting questions about the treatment of comparatives (see also Davis and Mellesmoen (2019) for related work on co-existing systems in Salish), but this is beyond the scope of the present paper.

5. Toward a direct analysis

In the final section of this paper, I aim to give a preliminary analysis of the explicit comparative in Fijian. To do this, I offer a *direct* analysis (see also Pancheva, 2006; Merchant, 2009; Bhatt and Takahashi, 2011; Shimoyama, 2011; Bochnak, 2018), as I show the standard of comparison in Fijian comparatives to be exclusively phrasal.¹² I propose an analysis for separative

¹²For more on the phrasal vs. clausal distinction in comparatives, see Hankamer (1973); Merchant (2009); Potsdam (2011); Bhatt and Takahashi (2011).

comparatives in Fijian that builds on Potsdam's (2011) syntactic analysis of separative comparatives in Malagasy, and Heim's (1985) semantics for direct comparison. The proposal in a nutshell is that the standard in separative comparatives is individual-denoting, and that there is a (potentially silent) comparative head MORE in the construction.

5.1. Phrasal vs. clausal standards

Explicit comparatives across languages have been shown to make use of both phrasal (44a) and clausal (44b) comparatives.

- (44) a. Sarah is taller than [Mary]. *phrasal*
 b. Sarah is taller than [Mary is]. *clausal*

One approach to comparatives assimilates both standard types to an underlyingly clausal source, where the difference in pronounced material is the product of different kinds of ellipsis (i.a. Chomsky 1965, 1977; Bresnan, 1973; von Stechow, 1984; Lechner, 2001, 2004):

- (45) a. Sarah is taller [than Mary is ~~d-tall~~]. *stripping*
 b. Sarah is taller [than Mary is ~~d-tall~~]. *comparative deletion*

On this line of analysis, the comparative degree head MORE always takes two arguments, both of which are properties of degrees ($\langle d, t \rangle$), the first being supplied by the clausal standard:¹³

- (46) 2-place MORE
 $[[\text{MORE}]]: \lambda P_{\langle d, t \rangle} \lambda Q_{\langle d, t \rangle} [\text{MAX}(Q) > \text{MAX}(P)]$ repeated from (13)

An alternative to this unified approach is the idea that phrasal comparatives are not derived from a clausal source, i.e., the standard has not undergone any ellipsis (Heim, 1985; Bhatt and Takahashi, 2011; Potsdam, 2011; Shimoyama, 2011).¹⁴ In this case, MORE takes as its first argument an individual – rather than a degree – which is supplied by an individual-denoting PP standard (e.g., *than Mary*) (47). This type of analysis therefore takes phrasal comparatives at face value: There is no ellipsis producing the phrasal standard from a larger structure, and MORE is potentially ambiguous between a 2-place and 3-place meaning.

- (47) 3-place MORE
 $[[\text{MORE}_3]]: \lambda x_e \lambda G_{\langle d, \langle e, t \rangle \rangle} \lambda y_e [\text{MAX}(\lambda d. G(y) \geq d) > \text{MAX}(\lambda d'. G(x) \geq d')]$

I will adopt this latter type of direct analysis for Fijian, which I turn to in the next subsection.

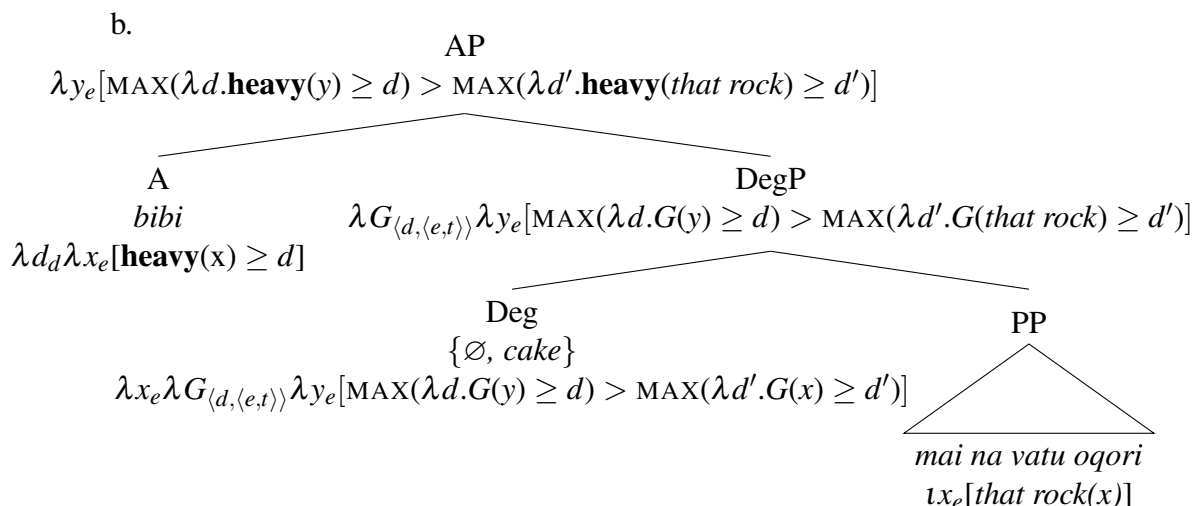
5.2. A direct analysis for Fijian

In a nutshell, the analysis I propose for Fijian is as follows. In an example such as (48a), the standard marker *mai* 'from' selects for a DP argument. As PPs are individual denoting and therefore of type *e*, $[[\text{MORE}_3]]$ then takes this entire individual as its first argument before composing with the adjective (48b). The derivation below adopts the classical analysis of degree structure from Bresnan (1973), though the comparative morpheme here follows the adjective to reflect word order.

¹³Operator movement results in degree abstraction; see Chomsky (1977).

¹⁴See Bhatt and Takahashi (2011) for more on '2-place' and '3-place' meanings for MORE.

- (48) a. na vatu oqo e bibi Ø/**cake** [mai na vatu oqori].
 ART rock this 3.SG heavy CMPR from ART rock that
 ‘This rock is heavier than that rock.’



The meaning of the entire comparative as in (48a) is then that in (49), after the subject is added:

- (49) $\text{MAX}(\lambda d. \text{heavy}(\text{this rock}) \geq d) > \text{MAX}(\lambda d'. \text{heavy}(\text{that rock}) \geq d')$

In the next subsection, I motivate this analysis with data supporting a phrasal analysis.

5.3. Fijian lacks clausal standards

The first piece of evidence for a direct analysis of comparatives in Fijian is that clausal standards are never allowed in the language. For instance, as (50) shows, clausal standards are ungrammatical (with or without comparative deletion of the embedded adjective, cf. (10)):¹⁵

- (50) *e katakata cake 'o Viti [mai-vei e (katakata) 'o Peritaania].
 3.SG hot more PN Fiji from-DIR.PN 3.SG hot PN Britain
 Intended: ‘Fiji is hotter than Britain is (hot).’

Evidence that phrasal standards are not the result of obligatory ellipsis (e.g., stripping) comes from the unavailability of subcomparatives. As Potsdam (2011) notes in his work on comparatives in Malagasy, this is a construction where ellipsis would not be allowed and where we might expect to find clausal standards if the language allowed them in restricted contexts. This is because subcomparatives require a contrast at least in gradable predicates across clauses, which would violate the identity requirement on ellipsis:

- (51) a. The window is wider [than the door is tall].
 b. $\exists d_1 [d_1 > \iota d_2 [\text{the door is } d_2\text{-tall}] \& [\text{the window is } d_1\text{-wide}]]$ (Heim, 1985)

¹⁵An example of a nominal comparative is shown below:

- (i) e a volia vaka-levu ko Meri na appolo [mai va-na moli].
 3.SG PST buy EMPH-big PN Mary ART apple from DIR-ART banana
 ‘Mary bought more apples than bananas.’

It is worth noting that nominal and adverbial comparatives make use of a different standard marker, *levu* ‘big’.

Just as in Malagasy, clausal subcomparatives in Fijian are ungrammatical, and require a nominal standard instead, consistent with a ban on clausal standards:

- (52) Na katubaleka e raraba [mai-va [_{DP} na baluvu ni katuba]].
 ART window 3.SG wide from-DIR the height of.the door
 ‘The window is wider than the height of the door.’

It is worthwhile to note here that Bochnak (2018) argues for Luganda that these require a 2-place analysis due to the need for a degree argument inside a nominal standard such as *the height of the door*. Further, Bhatt and Takahashi (2011) likewise argue that a 2-place analysis is required for comparison with a degree, which Fijian does make use of as shown in e.g., (22) (though note that this still does not necessitate ellipsis in the standard). Bhatt and Takahashi argue that 2-place MORE is in fact more basic than its 3-place counterpart, suggesting that an ambiguity in the meaning of *more* is unsurprising in Fijian, and is a semantic fact. The ban on clausal standards, on the other hand, is a syntactic one, which I turn to immediately.

This ban on clausal standards in Fijian is ultimately not surprisingly, given independent syntactic facts about the language. In particular, the lack of clausal comparatives in Fijian is in line with Bhatt and Takahashi’s (2011) observation about Hindi that clausal standards are disallowed when the standard marker is not able to embed a finite clause on its own. In Fijian, the standard marker *mai* is the preposition ‘from’:¹⁶

- (53) mai na koro
 from ART village
 ‘from the village’ (Milner, 1967: 58)

Mai can also have the meaning of ‘since’ when used alongside the noun *gauna* ‘time’, but, unlike English, is nevertheless unable to embed a clause on its own:¹⁷

- (54) Au a marau mai *(va-na gauna) [iko a lako mai kina].
 1.SG PST happy from DIR-ART time that PST arrive from you
 ‘I’ve been happy since you arrived.’

Comparatives in Fijian are therefore generally limited to individual-denoting, DP standards, which is the result of the selectional requirements on the prepositional standard marker *mai*. In sum, the data above converge to reveal that Fijian lacks clausal standards for independent syntactic reasons, rendering the direct and phrasal account the best analysis for the language (outside of comparison to a degree).

¹⁶*Mai* also occurs as a post-verbal particle, the behavior of which is described in some detail in van Urk (2019). In its prepositional form, *mai* often co-occurs with another directional particle, *va/vei*, meaning something like ‘to/towards’.

¹⁷Note that the prepositional status of this marker rules out the presence of a standard containing its own preposition, such as the construction in (i), as P may not select for P:

- (i) *’o Meri ea danisi vaka levu kei ira na tagane mai-vei [_{PP} kei ira ne yalewa].
 PN Mary 3.PRO dance INTNS big with 3.PRO ART men from-DIR with 3.PRO ART women
 Intended: ‘Mary danced more with men than *with women*.’

6. Conclusion

In sum, Fijian has explicit, degreeful comparatives, and should not be analyzed as a degreeless language. I have argued for this conclusion based not only on morphological diagnostics for implicit vs. explicit comparison, but also on tests for degreefulness both in the domain of comparatives (Kennedy, 2007) and beyond (Beck et al., 2009), which Fijian passes.

Further, I have shown that understanding Fijian as an explicit comparison language reveals a language with unreduced phrasal standards. The language displays similar behaviors to other languages with prepositional standard markers, such as Hindi and Malagasy. The preliminary analysis presented here for a direct approach to Fijian comparatives captures this similarity.

Larger questions that emerge from this work have to do with i) potential diachronic change in Fijian and ii) the relationship between degree morphology and degrees in the ontology. The data here reflect judgments of a single speaker, and are sometimes at odds with the data presented in Pearson (2009). As discussed in Section 4.4, the loss of an implicit comparison is attested elsewhere in Austronesian; while this loss is suggested to be underway in Fijian, the potential for a mixed comparative system raises interesting questions. On the second point, I have dedicated some discussion to the assumed (but potentially erroneous) correlation between degreefulness and degree morphology. While this correlation appears to be upheld in Fijian, the relationship between meaning and form in comparatives remains an empirical question.

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