Transitivity and polysynthesis in Fijian

Raúl Aranovich

Language, Volume 89, Number 3, September 2013, pp. 465-500 (Article)

Published by Linguistic Society of America
DOI: *https://doi.org/10.1353/lan.2013.0038*

TRANSITIVITY AND POLYSYNTHESIS IN FIJIAN

RAÚL ARANOVICH

University of California, Davis

This article argues for a three-way structural characterization of Fijian objects: common nouns can be incorporated or dislocated, but pronouns and proper nouns occur inside the VP as complements. These facts support an analysis of Fijian as a polysynthetic language, since it is a pronominal argument language with incorporated objects. Having complement nominals inside the VP, however, puts Fijian outside the scope of Baker's (1996) polysynthesis parameter. The distribution of complements in Fijian follows from Hopper and Thompson's (1980) TRANSITIVITY HYPOTHESIS, since only those nominals with the highest degree of individuation can occur inside the VP.*

Keywords: animacy, dislocation, incorporation, object, polysynthesis, transitivity

1. INTRODUCTION. Like other Oceanic languages, Fijian is characterized by a complex system of transitivity.[1] The main claim of this article is that Fijian objects are structurally realized in three different ways. I argue that in addition to their canonical placement as complements, Fijian objects can be either incorporated or dislocated. Dislocated objects are adjoined to a functional projection, and licensed by a null pronominal constituent in argument position. The distribution of objects in Fijian is lexically determined, with the position of sister to V reserved for pronouns or proper nouns. This analysis has theoretical consequences for the typology of polysynthesis, since it shows that languages with polysynthetic properties may allow some overt lexical items to occur inside the VP, in the canonical position of a direct object.

In §2 I introduce the pronominal argument hypothesis, discussing its place in Baker's (1996) theory of polysynthesis. I show that Fijian has some of the features that characterize pronominal argument languages, in Baker's terms. I then discuss the grammatical properties of pronouns and proper nouns as objects, arguing that these are complements, and therefore that Fijian syntax also has nonpolysynthetic elements (§3). I show that an alternative analysis, according to which all free-standing objects are first merged in argument position, faces serious objections when applied to Fijian. Section 4 provides examples of a third object type in Fijian: incorporated objects. Here I argue against the hypothesis that pronouns and proper nouns are also incorporated objects, pointing out grammatical differences between these object types and incorporated nouns. Finally, in §5 I show why Fijian cannot be accounted for under a narrow charac-

* The data in this article were for the most part collected during fieldwork in Viti Levu in the summer of 2006, with additional material gathered in California between 2011 and 2012. I express my gratitude to Mikaele Sela, Kalivati Qolicakota, Vasiti Ritova, and Isireli Volau for their help and patience with the Fijian data. Any errors should be attributed to me. I thank France Mugler for her support, which made it possible for me to stay at the University of the South Pacific during a productive and pleasant visit. Thanks to the many people who offered comments on earlier versions of this material: Line Mikkelsen, Masha Polinsky, Eric Potsdam, Apolonia Tamata, and several anonymous referees.

[1] Data come from the Standard variety of Fijian, which is to a large extent based on the Bauan dialect (Schütz 1985, Milner 1990 [1956]). This is an Eastern Fijian variety, closely related to the Boumaa dialect studied by Dixon (1988), but somewhat different from the Western varieties. See Geraghty 1983 for a comprehensive overview of Fijian dialects. One example is taken from a Fijian play, *Na tawa Vanua*, by M. M. K. Yasa (Suva: Lotu Pasifika, 1983). In the glosses of Fijian examples I have tried to follow the conventions in Schütz 1985. The following abbreviations are used: ABS: absolutive, ASP: aspectual, CAUS: causative, CNT: continuative, DET: determiner, DIR: directional, EMPH: emphasis, ERG: ergative, FUT: future, GNRL: general, GL: goal, HAB: habitual, INCOMP: incompletive, INDF: indefinite, IMPF: imperfective, INT: intensive, INTR: intransitive, LIM: limitation, LOC: locative, O: object, PL: plural, POL: polite, POSS: possessive, PST: past, RCP: reciprocal, S: subject, SEQ: sequential, SG: singular, SUB: subordinator, TR: transitive.

terization of Baker's polysynthesis parameter, developing a gradient approach to polysynthesis, based on Hopper and Thompson's (1980) transitivity hypothesis. I show that this approach is more explanatory than others that seek to provide a categorical distinction between two language types. This section concludes the article, comparing Baker's macroparametric approach to polysynthesis to a microparametric view of typology.

2. FIJIAN AS A POLYSYNTHETIC LANGUAGE.

2.1. CONFIGURATIONALITY, PRONOMINAL ARGUMENTS, AND POLYSYNTHESIS. There appears to be a fundamental contrast between two language types: those with a rigid word order, and those that allow for great flexibility in the placement of words relative to each other within the clause. Hale (1983) refers to the first type as CONFIGURATIONAL languages, and to the second type as NONCONFIGURATIONAL. Hale claims that English is an instance of the first type, while Warlpiri, an Australian language characterized by free word order, discontinuous constituency, and null anaphors, is an example of the second type. Jelinek (1984) suggests that the most explanatory account of the cluster of properties found in languages like Warlpiri is that all overt nominals are adjuncts. In her analysis, the semantic arguments of the predicate in Warlpiri are syntactically realized as pronominal clitics, which license free-standing DPs through anaphoric linking. Jelinek's PRONOMINAL ARGUMENT HYPOTHESIS (PAH) was revised by Baker (1996). Focusing on Mohawk, he suggests that free-standing DPs are dislocated constituents, licensed by empty categories in argument position. Verbal morphology identifies these empty categories through agreement. For Baker, then, all languages share a structure with similar hierarchical properties, but in languages like Mohawk argument positions are reserved for categories without phonological content, that is, *pro*. In this article I adopt Baker's (1996) version of the PAH (unless otherwise noted).

Baker (1996) points out the similarities between the PAH and his early analysis of NOUN INCORPORATION (NI). In Baker 1988 he argues that NI is the result of a syntactic rule that moves a head noun out of the complement position of V, attaching it to V and leaving a trace behind. In both cases, then, a morphological element of the head of VP identifies an empty category in argument position, whether through an agreement relation or through movement (of an incorporated noun). In this way, Baker (1996) unifies under a single parameter the various features of polysynthetic languages like Mohawk, Mayali, or Nahuatl, which in addition to NI have the properties in 1.

(1) Properties of pronominal argument languages
   a. Free/flexible word order
   b. Null pronominal anaphora
   c. Adverbial quantification

Baker's POLYSYNTHESIS PARAMETER, informally stated in 2a, is explicitly formulated as the MORPHOLOGICAL VISIBILITY CONDITION in 2b.

(2) a. Every argument of a head element must be related to a morpheme in the word containing that head (Baker 1996:14).
   b. Morphological visibility condition: A phrase X is visible for θ-role assignment from a head Y only if it is coindexed with a morpheme in the word containing Y via:
      (i) an agreement relationship, or
      (ii) a movement relationship (Baker 1996:17).

Baker's theory aims to capture in a simple principle a fundamental structural property of a class of languages that accounts for a diverse collection of features in their grammars. In these polysynthetic languages, argument positions can only be occupied by con-

stituents without phonological features. These empty categories must be identified by morphological material within the head of VP. In nonpolysynthetic languages like English, by contrast, the arguments of a predicate can be overt, and they need not be identified by morphological material in the head of VP (verb-final, dependent-marking languages like Turkish or Japanese are set aside as a distinct third type by Baker). I argue that this macroparameter is too coarse to capture more detailed distinctions in the way VP complements are licensed. The grammar of transitive clauses in Fijian provides evidence that such fine-grained distinctions are necessary. In the analysis I develop here, a three-way contrast among object types emerges, resulting in a language that exhibits polysynthetic properties when objects headed by common nouns are considered, but not when proper nouns and pronouns are involved. Once this kind of variation is detected, it is possible to discern a crosslinguistic pattern in the lexical properties of VP complements. In the final outcome of my proposal, Baker's two language types end up being the extreme cases of a typological hierarchy based on a set of constraints licensing acceptable objects.

2.2. Fijian syntax and the PAH. Fijian is a nominative/accusative language. Particles like *au* '1SG' in 3a or *e* '3SG' in 3b specify the person and number of the subject of transitive and intransitive verbs alike. These particles are obligatory and fixed in preverbal position. A number of aspectual particles expressing tense, aspect, mood, and other categories (including the aspectual/emphatic *sa*, the tense markers *a* 'past' and *na* 'future', the sequentials *mani* 'then, accordingly' and *qai* 'then, next', *dui* 'each', *dau* 'habitual', *rui* 'excessively', and some others) may separate the person/number particles from the verb, as in 3a. Nevertheless, these person/number particles are analyzed as agreement markers, not as subjects, since they can cooccur with an overt subject, as in 3b, and even with an emphatic strong pronoun, as in 3c. Because this emphatic pronoun is optional, I take Fijian to be a *pro*-drop language. Transitive verbs are distinguished from intransitives, however, by the presence of a verbal suffix. This suffix, often of a *-Ca* shape, is exemplified by *-ta* in 3b.[2]

(3) a. au se qai yadra mai
1SG ASP SEQ wake DIR
'I just woke up.'

b. e roqo-ta tiko na gone na marama
3SG hold-TR CNT DET child DET woman
'The woman is holding the child.'

c. era sa qito **ko era**
3PL ASP play DET they
'They are playing.' (Milner 1990 [1956]:100)

The unmarked word order of the Fijian transitive clause is VOS, as in 3b, but it is also possible (and frequent) for the object to follow the subject, as in 4a. The subject or object may also precede the verb, as in 4b–c, although some speakers disagree. Moreover, objects can be omitted from the clause. As 5 shows, when the *-Ca* suffix is used it is not necessary to specify a complement by means of a DP.

[2] Besides *-ta*, other *-Ca* suffixes are *-ca*, *-ga*, *-ka*, *-ma*, *-na*, *-ra*, *-va*, *-ya*. According to Milner (1990 [1956]:28), 'there is no known rule to indicate which suffix is appropriate to what base'. There is no phonological conditioning. The *-va* suffix, for instance, can appear in verbs like *qoli-va* 'fishing in' or *cina-va* 'shining on', regardless of the base's final vowel (or the preceding consonant). Verbs ending in *-i* or *-a* can also take other suffixes, as shown by *rai-ca* 'seeing' or *siga-na* 'drying'. Some verbs take only the *-a* suffix, as in *soli-a* 'giving' or *kila-a* 'understanding'. The choice of suffix, then, is lexically conditioned. It should be noted, however, that some verbs take more than one suffix, with a change in meaning. Thus, beside *rawa-ta* 'obtaining', one finds *rawa-a* 'overcoming'.

(4) a. sa kani-a oti na koli na benu
ASP eat-TR ASP DET dog DET leftovers
'The dog finished eating the leftovers.'
b. na marama oya e kaci-va tiko na gone oya
DET woman that 3SG call-TR CNT DET boy that
'That woman is calling that boy.'
c. na gone, e keve-ta tiko na marama
DET boy 3SG carry-TR CNT DET woman
'The woman is carrying the child.'

(5) e roqo-ta tiko na marama
3SG hold-TR CNT DET woman
'The woman is holding him.'

The two properties of Fijian clauses discussed above (word-order flexibility and null anaphora) are characteristic of pronominal argument languages. Adverbial quantification, an additional property of pronominal argument languages, is also found in Fijian. Universal quantification is not expressed by a nominal quantifier, nor by a constituent of a DP (i.e. a determiner or modifier), but by the particle *kece* 'all', as shown in 6a–c.

(6) a. era moce **kece** tiko
3PL sleep all CNT
'They are all asleep.' (Milner 1990 [1956]:30)
b. ka ra tiko **kece** e na koro **na gone**
and 3PL stay all at DET village DET child
'And all the children were staying in the village.' (Schütz 1985:286)
c. e kani-a oti **kece** sara ga **na benu** na koli
3SG eat-TR ASP all INT LIM DET leftovers DET dog
'The dog did finish eating all the leftovers indeed!'

Kece occurs in a fixed position after the verb, along with a number of particles that express a variety of aspectual, temporal, modal, directional, and other adverbial meanings (I refer to them simply as 'adverbial particles'). These postverbal particles are different from the preverbal particles discussed earlier, even if they sometimes overlap in function. Some particles that appear after the verb can also occur before the verb, with a different but related meaning. *Mai*, for instance, means 'here' or 'hither' in postverbal position, but it behaves as a converb meaning 'come and … ' when it precedes the verb. The particle *tiko*, which follows *kece* in 6a, is a common postverbal adverbial particle, indicating progressive aspect. Other particles that occur in this position are *tū* 'indefinite' (in time or place), *mai* 'here, hither', *yani* 'away, hence', *rawa* 'possible', *oti* 'finished' or 'perfective', *sara* 'emphatic', and a few more. There is a fixed order among these postverbal adverbial particles. In the case of *kece*, it must follow *oti* (and *rawa*), but it must precede the others, as shown in 6c. The fact that *kece* has a fixed place in the sequence of adverbial particles is evidence for its own adverbial nature. As an adverbial particle, *kece* occurs in a position that is not necessarily adjacent to the DP it modifies, as shown in 6b–c.

2.3. ANALYZING FIJIAN AS A PRONOMINAL OBJECT LANGUAGE. I have shown that Fijian possesses the characteristic properties of pronominal argument languages listed in 1. I suggest that these properties can be accounted for by the morphological visibility condition, treating Fijian objects as dislocated constituents (the shared properties between Romance CLITIC LEFT DISLOCATION and dislocation of DPs in languages like Mohawk are discussed in Baker 1996). Thus, my analysis of the Fijian clause is based on the hypothesis in 7.

(7) FIJIAN PRONOMINAL OBJECT HYPOTHESIS: In active transitive sentences, the valence requirements of the verb are satisfied by a null pronominal object, which may license a dislocated DP.

The hypothesis that Fijian is a pronominal argument language is already proposed in Alderete 1998, based on Dixon's (1988) data from the Boumaa dialect. Here I extend some of Alderete's arguments to Standard Fijian, enriching the discussion with new evidence as well (for reasons of space I cannot review all of the arguments). Following Pawley (1986), Alderete analyzes the final vowel of the *-Ca* transitive suffix as a pronominal affix. As in Jelinek's (1984) approach, Alderete suggests that this pronominal affix satisfies the valence of the transitive verb, and that free-standing objects like *na gone* 'the child' or *na benu* 'the leftovers' in examples like 3b and 4a are APPOSITIONAL (Alderete's term). My analysis is closer to Baker's formulation of the PAH. I assume that the *-a* suffix is an agreement morpheme that identifies a *pro* in object position. A free-standing object is base-generated in an adjoined position above VP, and is coindexed with *pro*.

The Fijian pronominal object hypothesis accounts for properties 1a–b in Fijian. First, because the valence requirements of the verb can be fulfilled by the empty pronoun identified by the agreement affix *-a*, no overt complement is needed when the affix is present, as in 4b. Second, the claim that all free-standing DPs are dislocated accounts for the freedom in word order observed in 3b and 4a. Because DPs like *na gone* 'the child' or *na benu* 'the leftovers' are not constituents of the VP, their relative order with respect to the subject depends on where they are adjoined. One alternative, which I do not pursue here, is to let Fijian objects adjoin to CP in VSO sentences, but to VP in VOS sentences (see Baker 1996 for arguments in favor of VP adjunction). Following ideas in Baker 2003, I assume instead that Fijian subjects are also dislocated constituents, adjoined to IP. Dislocated subjects, Baker argues, always agree with the verb. Baker also suggests that subjects are adjoined to a relatively low position in the tree, licensed by predication. But because multiple adjunction is possible, objects can be adjoined above or below the subject. In the first case, the order is VSO, as in 8a. The structure in 8b illustrates the second case, in which the order is VOS.

(8) a. $[_{IP}\,[_{IP}\,[_{IP}\,pro_j\ \mathrm{AGR}_j\ [_{VP}\,\text{V-TR-}\mathbf{a_i}\ \boldsymbol{pro_i}]\ \mathrm{DP}_j]\ \mathbf{DP_i}]$
b. $[_{IP}\,[_{IP}\,[_{IP}\,pro_j\ \mathrm{AGR}_j\ [_{VP}\,\text{V-TR-}\mathbf{a_i}\ \boldsymbol{pro_i}]\ \mathbf{DP_i}]\ \mathrm{DP}_j]$

The Fijian pronominal object hypothesis also accounts for property 1c: absence of quantificational determiners in Fijian. Jelinek (1995) suggests that pronominal argument languages should only have adverbial quantifiers, since determiner quantifiers can only take scope over lexical items in argument positions. Baker (1995) also argues that determiner quantifiers should not be found in pronominal argument languages, since overt nominals are dislocated from their argument position. Universal quantifiers, Baker explains, cannot locally bind a pronoun. But in pronominal argument languages all core arguments are pronominal, linked to adjoined DPs by coindexation. If one of these DPs contains a universal quantifier, then it could not share an index with a pronominal argument, and it could not be licensed in the clause. Pronominal argument languages, Baker suggests, can only express universal quantification by means of adverbial quantifiers. The adverbial status of *kece* (6b–c), then, is additional support for the claim that Fijian is a pronominal argument language, made explicit in the Fijian pronominal object hypothesis.

2.4. PRONOMINAL ARGUMENT LANGUAGES AND THE POLYSYNTHESIS PARAMETER. It is important to note that not all languages with the properties in 1 fall under the polysynthesis parameter. To be considered polysynthetic, in Baker's (1996) technical sense, a

language must also have productive noun incorporation. As Baker states, 'the key idea of the Polysynthesis Parameter is that agreement morphemes and incorporated noun roots are part of the same system' (1996:19). This criterion rules out many of the so-called nonconfigurational languages, such as Warlpiri, Navajo, or Straits Salish. Like Mohawk, Fijian has productive noun incorporation, as example 9a shows. Example 9b shows a comparable sentence with a free-standing object. On this account, then, Fijian is polysynthetic.

(9) a. au a taga **ura** tiko e na bogi
1SG PST catch prawn CNT in DET night
'I was catching prawns last night.'
b. au sa taga-va oti **na ura**
1SG ASP catch-TR ASP DET prawn
'I have finished catching the prawns.'

In a polysynthetic language, then, DPs are dislocated, resulting in a language with the properties in 1. As a referee points out, however, those features are not found just in pronominal argument languages. Flexible word order, for instance, may result from scrambling out of argument positions, as Legate (2002) suggests. Based on the referential properties of DPs, anaphoric binding (condition C violations), weak cross-over (WCO) effects, and other structural tests, she concludes that Warlpiri is not a pronominal argument language after all.[3] As I show below, however, there is available evidence against extending Legate's analysis to polysynthetic languages like Fijian or Mohawk.

Condition C violations arise when a referential expression is bound by a c-commanding pronoun. Pronominal argument languages should exhibit condition C violations, because of CONNECTIVITY effects: dislocated objects, even though adjoined, behave as if they are in the position of the *pro* they are coindexed with (Cinque 1990). In Warlpiri, Legate argues, a possessor in a dislocated object can be coreferential with a pronominal subject, a configuration that should result in a condition C violation under a pronominal argument analysis. Likewise, WCO effects are the result of an interrogative pronoun moving over a coreferential pronoun. If DPs are dislocated and merged in adjunct position, then the trace of a WH-word would never c-command a pronoun inside the adjoined DP. Legate shows that WCO effects are absent from Warlpiri (in short questions), against the predictions of the PAH. Legate's case against an analysis of Mohawk as a pronominal argument language, however, is not as conclusive. There are no condition C violations in Mohawk, but Baker (1996) argues that this is due to independent reasons: in Mohawk, possessive constructions have the structure of relative clauses. Connectivity does not apply to relative clauses, so the phrase with the possessor does not act as if it were in the position of *pro*. Moreover, unlike Warlpiri, Mohawk displays WCO effects. This fact offers evidence against a scrambling analysis of Mohawk, and suggests that dislocation is a better account for its flexible word order. I return to the contrasting properties of Warlpiri and Mohawk in §5.1.

More importantly for my present goals is to review Legate's analysis of indefinite DPs in Warlpiri, and the semantics of Fijian DPs. The PAH predicts that indefinite DPs can have only a specific (i.e. presuppositional) or generic interpretation, since all DPs are ex-

[3] Legate's research on Warlpiri word order, however, focuses mainly on the clause-initial position. She suggests that a scrambling analysis similar to the ones developed for Japanese or German may account for the word-order possibilities in the right field of the Warlpiri sentence, but the details of the proposal are not fully worked out.

ternal to VP. Indefinite DPs can have only a nonspecific interpretation if they are inside the VP (Diesing 1992). Nonspecific DPs exist in Warlpiri, Legate claims, suggesting that DPs can merge in argument position, and that they may remain there, against the predictions of the PAH. In Fijian, however, free-standing objects are always presuppositional, the article *na* often being translated as the English definite determiner. I return to the details of definiteness in Fijian in §5.3. For now, I just point out that a dislocation analysis of Fijian DPs makes the right predictions with respect to their interpretation.

Legate's scrambling account of Warlpiri offers an interesting alternative to the PAH as a source of word-order flexibility, even in head-marking languages, but, as Baker notes, the unavailability of NI in Warlpiri places it in a separate class from Mohawk and other polysynthetic languages. Baker's insight is that incorporation and dislocation are deeply related in the grammar of languages like Mohawk. The existence of noun incorporation in Fijian makes it more similar to Mohawk than to Warlpiri, from a typological point of view. Moreover, the referential properties of Fijian DPs support a pronominal argument analysis. Testing the predictions of this analysis against condition C violations and WCO effects in Fijian remains a goal for future work.

2.5. The nature of the object agreement morpheme in Fijian. There is an implicit claim about the morphology of the Fijian verb in the analysis of *-a* as an agreement morpheme. The actual form of the transitive suffix is not *-Ca*, as traditionally assumed, but *-Ci* (an analysis already proposed in Arms 1974 and Schütz 1985). The final vowel of this affix is deleted when followed by *-a*. The *-Ci* form of the suffix is observed when the direct object is a pronoun, as in 10, for instance.

(10) au a kaci-**vi** iko
1SG PST call-TR you
'I have called you.'

Anticipating the discussion in the next section, I argue that the pronoun *iko* 'you' in 10 is a constituent of the VP, and that the occurrence of this overt complement is incompatible with head marking of the object by means of the *-a* suffix. Additional evidence for the hypothesis that *-a* is a separate suffix comes from passive (11a) and reciprocal (11b) constructions.

(11) a. sa tobo-**ki** na vuaka
ASP catch-TR DET pig
'The pig was caught.' (Milner 1990 [1956]:97)

b. eratou vei-loma-**ni**
3PL RCP-love-TR
'They love each other.' (Milner 1990 [1956]:111)

The clauses in 11a–b are intransitive, the patient being realized as a subject. Because the complement of V is either absent or the trace of a nominative argument, the object agreement affix *-a* cannot occur in these sentences. But these verbs still have a *-Ci* suffix, showing that the *-Ci* suffix is not just an indicator of syntactic transitivity. Its function is better characterized as a marker of a predicate with two arguments, regardless of their syntactic expression. In an active sentence, the two arguments of a *-Ci*-marked predicate are realized as subject and object (the object marked by the object agreement suffix *-a* if it is *pro*). In a passive, the external argument is suppressed, leaving an internal argument (i.e. a patient) to be realized as the subject, while in a reciprocal clause the two arguments are linked together, then assigned to a single syntactic constituent (in a manner that resembles the unaccusative analysis of Romance reflexives and reciprocals in Grimshaw 1990).

Support for this analysis of the *-Ci* suffix comes from the fact that, absent the transitive suffix, many two-argument verbs are also used as single-argument verbs. Thus, beside *bulu-ta* 'to bury it' and *lako-va* 'to go on/for something' one finds *bulu* 'to be buried' and *lako* 'to go' as the intransitive counterparts. Based on data like these, Schütz (1985) divides Fijian predicates into active (the same argument is subject of the transitive and the intransitive forms, e.g. *lako*) and stative (the subject of the intransitive and the object of the transitive are the same argument, e.g. *bulu*). The *-Ci* suffix, then, adds an internal argument to the semantic structure of a predicate that has an external one (i.e. an agent), or an external argument if the predicate has no agent. The relation derived by addition of an external argument can be the input to other morphosyntactic operations. Thus, there is a contrast between an intransitive stative form like *bulu* 'be buried' (with one argument) and the passive form *bulu-ti* 'to be buried (by someone)', which is derived from *bulu-ta* 'to bury (someone)' by suppression (in the syntax) of the external argument.[4] Having said all this, I still refer to *-Ci* as a transitive suffix, glossing it accordingly.

Regarding the nature of the *-a* suffix, there is evidence that it is a true affix, and not a pronominal clitic (as suggested in Arms 1974 and Schütz 1985). Fijian has a serial verb construction, illustrated by the examples in 12.

(12) a. kati-a cavu-ka
bite-TR snap-TR
'bite it off (thread)' (Schütz 1985:248)

b. vosa-ka vaka-macala-taka
talk-TR CAUS-clear-TR
'explain' (Schütz 1985:248)

The serialized verbs must each have their own *-Ca* suffix. Each verb in the serial construction, then, is inflected by suffixation of the pronominal affix *-a*. If the *-a* morpheme were a clitic (resulting from attaching a syntactic object to a verbal head by movement, for instance), there could be only one *-a* morpheme in the serialized construction, since there is a single syntactic object that both serial verbs share. The hypothesis that *-a* is a suffix thus offers a better account of the double occurrence of *-a* in examples like 12a–b than the alternative.

3. ANALYTIC ASPECTS OF FIJIAN SYNTAX.

3.1. AN UNEXPECTED OBJECT TYPE IN FIJIAN. Fijian stands apart from other pronominal argument languages, however, by the fact that transitive sentences whose object is a pronoun or a proper noun have a distinct set of grammatical properties. As example 10 showed, the *-a* pronominal affix is absent when the object is an overt pronoun. The verb must have the *-Ci* suffix instead. The same is true when the object is a proper noun, as in 13a–b. Notice that the class of nouns that follows this pattern includes place names.

(13) a. au a roqo-ti **Lavenia**
1SG PST hold-TR Lavenia
'I held Lavenia.'

b. eratou na biu-ti **Ositirelia** mai e na ikalima
3PL FUT leave-TR Australia DIR at DET fifth
'They are leaving from Australia on the fifth.' (Milner 1990 [1956]:60)

[4] Kikusawa (2000b) suggests that the function of the *-Ci* suffix is to indicate the presence of an internal argument in the argument structure of the predicate. This characterization is too broad, given the existence of a class of stative predicates like *bulu*, which have an internal argument but no transitive suffix.

Following Pearce's (2001) descriptive terminology, I refer to sentences like 3b, in which there is an object agreement affix, as TYPE I sentences, and sentences like those in 10 and 13 as TYPE II sentences. By extension, I refer to the dislocated DPs licensed by the agreement affix as type I objects, and to objects that consist of proper nouns or pronouns as type II objects.

Type I objects also contrast with type II objects with respect to the occurrence of determiners and their order relative to verbal particles. There are two articles in Fijian: *na* and *(k)o*. The common article *na* precedes common nouns, as in 3b. The proper article *(k)o* precedes proper nouns and pronouns, as in 14. The article cannot occur with pronouns or proper nouns when they are objects, however, as shown in 15.[5]

(14) a. a kaci-vi Kele tiko **o koya**
PST call-TR Kele CNT DET he
'He was calling Kele.'

b. e vuke-a tiko na gone **o Waisale**
3SG help-TR CNT DET boy DET Waisale
'Waisale is helping the boy.'

c. e keve-ti koya tiko **o Kele**
3SG carry-TR her CNT DET Kele
'Kele is carrying her.'

(15) *au a kaci-vi **o Ema**
1SG PST call-TR DET Ema
'I called Ema.'

In addition, unlike type I objects, type II objects must precede all postverbal adverbial particles, as 16a–c show. A reversal of this order is ungrammatical (16d).

(16) a. au a roqo-ti **koya** tiko
1SG PST hold-TR her CNT
'I was holding her.'

b. e kodro-vi **au** ga na koli
3SG bark-TR 1SG LIM DET dog
'The dog only barks at me.'

c. au a kaci-vi **Ema** tiko
1SG PST call-TR Ema CNT
'I was calling Ema.'

d. *au a roqo-ti tiko **koya/Lavenia**
1SG PST hold-TR CNT 3SG/Lavenia
'I was holding her/Lavenia.'

Finally, type II sentences do not enjoy the same degree of word-order flexibility as type I sentences. When the object is a pronoun or a proper noun, it must follow the verb, preceding the subject, as in 17a. Placing a type II object after the subject results in ungrammaticality, whether or not the pronoun or proper noun is preceded by a determiner (17b). Addition of the pronominal affix *-a* to the verb, as in 17c, does not improve the sentence either.

(17) a. e keve-ti koya/Ema tiko na marama
3SG carry-TR her/Ema CNT DET woman

[5] A referee suggests that the final vowel of the *-Ci* suffix could be analyzed as a cliticized form of the personal article instead. However, the *-Ci* suffix also occurs where there is no object following the verb, as in the passive and reciprocal sentences in 11a–b. See §§3.2 and 4.2 for further discussion of the proper article and the *-Ci* suffix.

b. *e keve-ti tiko na marama (o) koya/Ema
3SG carry-TR CNT DET woman (DET) her/Ema
c. *e keve-ta tiko na marama (o) koya/Ema
3SG carry-TR CNT DET woman (DET) her/Ema
'The woman is carrying her/Ema.'

3.2. TYPE II OBJECTS AND THE POLYSYNTHESIS PARAMETER. The distinctive properties of type II objects, I suggest, show that they are bona fide complements of V, not dislocated DPs like type I objects. This hypothesis is made explicit in 18. The structure in 19 is the syntactic representation of type II clauses according to 18.

(18) FIJIAN VP HYPOTHESIS: Fijian type II objects (personal pronouns and proper nouns) are syntactic constituents of the VP, occupying the position of sisters of V.

(19) $[_{IP}$ AGR $[_{VP}$ V-TR $\mathbf{DP_{PRO/PN}}]$ DP]

Differences between the structure in 19 and the syntactic representations of type I clauses in 8 explain the contrasting properties of type I and type II objects. Assuming that the adverbial particles mark the right edge of the VP, type II objects must precede them because these objects are constituents of the VP. Type I objects, by contrast, being dislocated phrases, must follow any adverbial particle. The Fijian VP hypothesis also accounts for the absence of the agreement suffix in type II sentences. The function of the *-a* suffix is to identify a *pro* in object position, which in turn licenses a dislocated DP. But type II objects are complements, and they are phonologically overt. Unlike *pro*, they do not need to agree with the verb to receive case.

The placement of type II objects before the adverbial particles and the absence of the pronominal suffix *-a* in type II clauses are among Alderete's (1998) evidence for his claim that Fijian is a pronominal argument language. The absence of the personal determiner in type II sentences, however, is not addressed in his study. I argue that this piece of data also provides evidence in favor of the Fijian VP hypothesis. The argument is based on the fact that pronouns and proper nouns lack determiners when they are the complement of a preposition as well. Fijian has three directional prepositions: *ki* 'to', *mai* 'from', and *e* 'in/at'. In a prepositional phrase, Milner (1990 [1956]) explains, common nouns are preceded by the common article *na*, but proper nouns cannot be preceded by the proper article *(k)o*. When the complement of a directional PP is a proper noun or a pronoun, the preposition is *vei* instead, but still the article is not used.

(20) a. ki na vale
to DET house
'to the house' (Milner 1990 [1956]:19)
b. ki (*o) Suva
to DET Suva
'to Suva' (Milner 1990 [1956]:19)
c. vei (*o) Osea
in DET Osea
'in Osea's house' (Milner 1990 [1956]:59)
d. vei (*o) kedaru
to DET us
'to us' (Milner 1990 [1956]:60)

In addition, there is a comitative/instrumental preposition *kei* 'with', which is also used as a conjunction. As with the other prepositions in Fijian, common nouns take the common article *na*, but proper nouns are not preceded by the proper article *(k)o*.

(21) a. na vinaka kei na ca:
DET good with DET bad
'good and evil' (Milner 1990 [1956]:18)

b. o Viti kei (*o) Rotuma
DET Fiji with DET Rotuma
'Fiji and Rotuma' (Milner 1990 [1956]:18)

Under the Fijian VP hypothesis, the distribution of articles can be accounted for in a general way. Proper nouns and pronouns lack determiners when they are the direct complement of a verb or a preposition, that is, when they are the complement of a case-assigning head (V or P).

Clearly, then, the existence of type II sentences alongside type I sentences places Fijian outside the scope of the polysynthesis parameter. According to the Fijian VP hypothesis, the internal argument of the transitive verb can be assigned directly to an overt complement of V, and it does not need to be morphologically realized in V. In this sense, type II sentences look like the kind of transitive sentences one would find in non-polysynthetic languages. Fijian, then, is a mixed language, obeying the morphological visibility condition only as far as common noun objects are concerned. Baker's (1996) polysynthesis parameter, I argue, needs to be modified to bring such languages under its reach.

3.3. FUNCTIONAL PROJECTIONS AND FIJIAN CLAUSE TYPES. There is an alternative analysis of type I sentences, however, that would put Fijian outside the scope of the polysynthesis parameter altogether. Lexical categories like V are associated with a number of functional projections, the specifiers of which are potential landing places for other constituents (Larson 1988, Pollock 1989). In his analysis of object raising, Runner (1995) argues for the existence of AgrOP, a functional projection that provides a landing place for nonthematic objects. In this framework, the contrast between type I and type II objects can be restated in these terms: while type II objects are assigned case inside the VP, type I objects move outside the VP to the specifier of a case-assigning functional head like AgrO. In this analysis, type I objects are still outside the VP, but they are not dislocated (or adjoined). In this scenario, Fijian is not a pronominal argument language, since both type I and type II objects would be assigned case, either by V or by AgrO. In this section I review some proposals that have been developed along these lines by Massam (2001, 2010) for the Oceanic language Niuean, and then I discuss evidence against extending the Spec-AgrOP analysis to Fijian type I objects.

Like many Oceanic languages, Niuean objects can be realized as phrasal constituents of the clause, as in 22a, or as incorporated nouns, as in 22b.

(22) a. takafaga tūmau nī e ia **e tau ika**
hunt always EMPH ERG he ABS PL fish
'He is always fishing.' (Massam 2001:157)

b. takafaga **ika** tūmau nī a ia
hunt fish always EMPH ABS he
'He is always fishing.' (Massam 2001:157)

Massam (2001) argues that verb-initial clauses in Niuean are the result of predicate fronting, an analysis that has been recently proposed for other Austronesian languages (Rackowski & Travis 2000, Aldridge 2004, Cole & Hermon 2008), including Fijian (Potsdam 2009). In VOS clauses, the incorporated noun remains inside the VP, fronting alongside the V. Massam argues that incorporated objects in Niuean must be phrasal, not lexical, since modifiers can incorporate along with the head. She refers to this phenom-

enon as PSEUDO NOUN INCORPORATION (PNI). But unlike Fijian type II constructions, Niuean clauses with PNI are formally intransitive, ruling out a PNI analysis of the former.

In a more recent paper, however, Massam (2010) notices a conceptual problem regarding the position of the verb. If the fronted constituent is lexical in 22a, but phrasal in 22b, no account can be given of the identical placement of the verb in both constructions with any generality. Her answer is that the fronted constituent in 22a is phrasal, too. To account for the placement of the object outside the fronted VP, she suggests that the object is extracted to the specifier of a functional projection above VP (i.e. Absolutive Phrase) before the VP is fronted. In her analysis, then, the structure of a Niuean sentence like 22a is as in 23a, while the structural representation of PNI is as in 23b.

(23) a. $[_S\ [_{VP}\ [_V$ takafaga] $\boldsymbol{t_i}]\ [_{ErgP}\ [_{DP}$ ia$]\ [_{AbsP}$ **$[_{DP}$ ika$]_i$** $t_{VP}]]]$
b. $[_S\ [_{VP}\ [_V$ takafaga] **$[_{DP}$ ika$]$**$]\ [_{AbsP}\ [_{DP}$ ia$]\ t_{VP}]]$

As Massam (2010) shows, the view that objects in Oceanic languages may not always occur in the canonical position of phrasal constituents of the VP is gaining ground. Massam's conclusion is that Niuean overt objects are not merged in argument position. Rather, they are licensed by empty DP arguments inside the ROLL-UP DOMAIN.[6] Massam considers this to be similar to the way in which peripheral objects are licensed in pronominal argument languages, concluding that 'Niuean emerges as similar to a polysynthetic language notwithstanding the fact that it is isolating' (2010:289). Massam's treatment of Niuean may suggest similar functional projection-based analyses of Fijian, in which type I objects sit in the specifier of a functional projection, instead of being dislocated constituents. A Spec-AgrOP analysis of Fijian, as far as I know, has not been proposed anywhere in the literature. Nevertheless, I discuss specific facts about Fijian objects, and certain empirical differences between Niuean and Fijian, which cannot be easily accounted for if Massam's analysis were extended to type I objects in Fijian.

3.4. AGAINST MOVEMENT TO SPEC-AGROP IN FIJIAN. First, it should be noted that object left dislocation is observed in Fijian. As shown in example 4c, type I objects can appear at the front of the clause (i.e. they can be topicalized, as suggested in Kikusawa 2000b). But more important for the current discussion is the fact that object pronouns and proper nouns can also be left dislocated, as shown in 24a–b. Notice that if fronted object pronouns do not have the proper article, or if they are not licensed by the *-a* suffix on the verb, as in 25, the sentence is ungrammatical (the same applies to proper nouns).

(24) a. o koya, au a kaci-va tiko
DET her 1SG PST call-TR CNT
'I was calling her.'
b. o Ema, au a kaci-va
DET Ema 1SG PST call-TR
'I called Ema.'

(25) *o koya, e keve-ti tiko na marama
DET her 3SG carry-TR CNT DET woman
'The woman was carrying her.'

[6] In a roll-up movement analysis, the adverbial particles head their own projections, right-branching according to a postulated universal order. The complement of each maximal projection moves to the specifier position, resulting in a left-branching structure that, on the surface, has an inverse order. If the object merges above the roll-up domain, in the specifier of a functional projection (i.e. Absolutive Phrase), then the roll-up constituent can move to the specifier of PredP, across the subject and the object. Rackowski and Travis (2000) propose a similar analysis for Malagasy, but, as Chung's (2008) analysis of Indonesian shows, it is not valid for all Malayo/Polynesian languages.

These examples show that dislocation requires the presence of an agreement morpheme. A clause-initial pronoun or proper noun is dislocated from its base position inside the VP. The verb assigns its semantic role to an empty *pro*, which is coindexed with the dislocated DP. The affix *-a* identifies the empty argument through agreement. The grammatical properties of object pronouns and proper nouns in Fijian, then, are very similar to those of direct objects in languages like Italian or Chichewa: they can occupy a case-marked position inside the VP, or they can be dislocated if an agreement morpheme (a clitic in Italian, a prefix in Chichewa) licenses an empty *pro* in object position. Notice that these dislocated objects are similar to subject pronouns in that they also require the determiner *(k)o*. Objects headed by common nouns (i.e. type I objects), by contrast, must be licensed by the *-a* suffix regardless of their placement relative to the verb or to other constituents of the clause (unless they are incorporated, as already shown). According to the Fijian pronominal object hypothesis, type I objects are dislocated constituents. This analysis makes it possible to state a generalization about the *-a* suffix as an agreement affix that identifies empty pronominal objects. In contrast, the AgrOP analysis of type I objects assigns the *-a* suffix an additional function, licensing movement of a DP out of the VP. But research on dislocation across languages (Cinque 1990, Iatridou 1995, De Cat 2007) suggests that object agreement affixes do not cooccur with DPs that are displaced as a result of movement (instead of being merged in adjunct position, as in dislocation). Splitting the function of the *-a* suffix this way, then, is quite exceptional from the point of view of linguistic theory. An analysis based on the pronominal argument hypothesis, however, does not face this problem.[7]

Additional evidence against an AgrOP analysis of type I objects in Fijian is provided by examples 26a–b. These examples show that type I objects are licensed not only by an empty argument in agreement with the affix *-a*, but also by strong (i.e. overt) pronouns. This structure is commonly used to specify the number features of the object. Notice the intervening postverbal adverbial particles *tu* and *ga* in example 26b.

(26) a. e dau kodro-vi **ira** na vulagi na koli
3SG HAB bark-TR them DET visitor DET dog
'The dog usually barks at visitors.'

b. Seti, seti, o iko sa dau nanu-mi **ira** tu ga na yalewa.
no no DET 2SG ASP HAB remember-TR them INDF LIM DET women
'No, no, you generally just remember the women.' (*Na Tawa Vanua*, p. 10)

In a clause like 26a, there are two constituents that require accusative case: the pronoun and the DP *na koli* 'the dog'. If the DP moves to AgrOP to get case, then the pronoun would be caseless. The AgrOP analysis undergenerates, then, since it predicts that a sentence like 26a should be ungrammatical. The Fijian pronominal object hypothesis, by contrast, has no difficulty accounting for it. The pronoun is the object, and it licenses the dislocated DP through coindexation.

Finally, there is a difference with regard to word order in Fijian and Niuean that presents obstacles to an attempt to graft Massam's analysis onto Fijian. As I already mentioned, type I objects can occur after subjects. Moreover, they can occur after other prepositional phrases, including adjuncts (a fact not found among Alderete's 1998 data from Boumaa Fijian). This is illustrated in examples 27a–b.

[7] A referee suggests that the two cases can be unified if the occurrence of the *-a* suffix is related to an empty category in the complement of V (a *pro* in the case of dislocation, a trace in the case of movement to Spec-AgrOP). This solution is complicated by the absence of the *-a* suffix in passives like 11a, where the trace of the subject occurs in object position. I do not explore this alternative any further in this article.

(27) a. e dau vakayagataka **e na veigauna** na wailoaloa.
3SG HAB use in DET PL.time DET bluing
'She always uses the bluing.'
b. mo kau-ta mada mai **ki ke** e dua na wai
2SG carry-TR POL DIR to here 3SG one DET water
'Bring some water here.' (Milner 1990 [1956]:104)

Examples like these give support to the claim that type I objects are not inside the VP. Dislocated objects can be adjoined to different projections in Fijian, appearing either to the left or to the right of the subject DP and other adjunct phrases. In contrast, as Massam notices, the position of the object with respect to other constituents is fixed in Niuean. In particular, the object must precede all prepositional phrases, including beneficiaries, as shown in 28a. This contrasts sharply with the Fijian example in 28b.

(28) a. Ne tala aga e ia e tala ke he tagata.
PST tell DIR ERG 3SG ABS story GL LOC man
'He told the story to the man.' (Massam 2010:274)
b. au na soli-a **vei kemuni:** na noqu waqa
1SG FUT give-TR to you DET POSS.1SG boat
'I shall give you my boat.' (Milner 1990 [1956]:68)

Massam's analysis in terms of movement of the object to the specifier of a functional projection above the VP accounts for the rigid word order of Niuean. Because the object escapes the VP before VP fronting, it surfaces below ErgP (i.e. in the specifier of AbsP), to the right of the subject (the issue of the rigid order of objects with respect to other PPs in Niuean is not fully addressed in Massam 2010). Any analysis of Fijian in similar terms would therefore need to postulate an additional mechanism to account for cases like 27a–b and 28b. In an analysis like the one I propose here, by contrast, all type I objects are adjuncts, so their ability to precede other PPs is accounted for without stipulations. All of these reasons, then, lead me to conclude that an analysis of Fijian type I objects in terms of the Fijian pronominal object hypothesis is more explanatory than the AgrOP analysis. Any attempt to articulate such an analysis in detail will have to address the objections I have raised in this section and, in addition, provide data that the Fijian pronominal object hypothesis cannot handle (i.e. data showing that type I objects are in a fixed structural position, in the specifier of a functional category) if it is going to claim to be more explanatory than a dislocation analysis. The PAH thus offers the best account of the properties of type I sentences in Fijian. But given the existence of type II objects, which I have shown to be overt complements of V in Fijian, Baker's morphological visibility condition needs to be relaxed somehow. Before I develop a proposal to do so, I discuss noun incorporation in Fijian.

4. Incorporation and polysynthesis.

4.1. Noun incorporation in fijian. Fijian type I structures, then, have the characteristic properties of pronominal argument languages listed in 1. Adding to this the existence of NI, as the contrast between 9a and 9b illustrated, the conclusion is that Fijian is a polysynthetic language, structurally similar to Mohawk. Fijian NI is quite productive. Besides the familiar *gunu yaqona* 'kava drinking', and others cited in reference grammars (Milner 1990 [1956], Schütz 1985), I have elicited those in 29. Most of these are habitual or 'name-worthy' activities, a common crosslinguistic feature of NI (Mithun 1984).

(29) a. kaci-tevoro 'call spirits'
b. soli-iloloma 'give presents'
c. wawa-basi 'wait for the bus'

To distinguish type I and type II sentences from sentences with incorporated nouns, I refer to NI sentences as TYPE III sentences, and to the objects in these sentences as type III objects.[8] Several features distinguish type III from type I sentences. The most salient feature is the loss of the transitive suffix in NI. Compare the examples in 30 with the corresponding ones in 31, with free-standing objects.

(30) a. e dau **qua teveli** na gone
3SG HAB wipe table DET boy
'The boy wipes tables.'

b. e dau **kati ivava** na koli ya
3SG HAB bite shoe DET dog that
'That dog bites shoes.'

(31) a. e qua-**ta** na teveli na gone
3SG wipe-TR DET table DET boy
'The boy wiped the table.'

b. a kati-**a** na gone na koli
PST bite-TR DET child DET dog
'The dog bit the child.'

A second feature that characterizes incorporated nouns concerns the article, which accompanies type I objects (31), but is absent from type III objects (30). In fact, as 32a–b show, dislocated DPs cannot occur without the article (not even right after the *i*-final suffix). Adding determiners to incorporated objects yields the ungrammatical sentences in 33.

(32) a. *e roqo-ta tiko **gone** na marama
3SG hold-TR CNT boy DET woman
'The woman is holding the boy.'

b. *e kodro-vi **vulagi** tiko na koli
3SG bark-TR visitor CNT DET dog
'The dog is barking at the visitor.'

(33) a. *e taga na ura
3SG catch DET prawn
'He catches the prawns.'

b. *au kaci na gone
1SG call DET child
'I call the child.'

A third difference between type I and type III objects concerns their placement relative to the adverbial particles that follow the verb. Incorporated nouns cannot be preceded by adverbial particles. Compare the position of *tiko* in 9a and *oti* 'finish' in 9b. Dislocated DPs, by contrast, must always follow these particles. In example 3b, for instance, *tiko* occurs between the verb and the DP that specifies reference to the object. Multiple adverbial particles can appear after the verb and before a free-standing object, as I showed in 6c. The reverse order, however, shown in 34a, is ungrammatical—adverbial particles never follow a type III object. Moreover, an adverbial particle cannot separate verb and incorporated object, as shown in 34b.

[8] Alderete (1998) and Pearce (2001) mention type III constructions only marginally, since their focus is mainly the contrast between type I and type II objects. Pearce discusses type III constructions in Iaai, an Oceanic language of New Caledonia that is structurally similar to Fijian. Following Pawley (1986), however, she groups Fijian incorporated nouns (nonspecific objects, in Pawley's terminology) together with other contexts in which the *-Ca* suffix is absent.

(34) a. *e roqo-ta na gone **tiko** na marama
3SG hold-TR DET boy CNT DET woman
'The woman was holding the boy.'
b. *au kari tiko niu
1SG scrape CNT coconut
'I scrape coconut.'

4.2. PEARCE'S (2001) D-INCORPORATION ANALYSIS. Setting type II objects aside, then, Fijian looks like a polysynthetic language, in terms of Baker 1996. But because type II objects are constituents of the VP, licensed by the same kind of syntactic mechanisms that exist in nonpolysynthetic languages, Fijian is a partially polysynthetic language, requiring a more fine-grained approach to the typology of polysynthesis than Baker's theory allows. There is, however, an alternative analysis of type II objects that needs to be considered. Noting that nothing can separate the object from the verb in a type II or a type III sentence, Pearce (2001) suggests that type II objects are also incorporated heads. For Pearce, type I objects are complements, not dislocated constituents. Any differences between type I and type II sentences are the manifestation of a contrast between sentences with overt complements and sentences with incorporated nominals. If her analysis is correct, Fijian is a nonpolysynthetic language with NI, showing that incorporation is not part of the polysynthetic type after all, against Baker's (1996) characterization. I argue against Pearce's claim, offering additional arguments in favor of my analysis of Fijian as a partially polysynthetic language.

Pearce argues that proper names and pronouns form a class of expressions that can raise to the head of DP, the functional projection of NP. In this sense they differ from common nouns, which remain inside the NP, with an article as the head of their functional projection. According to Pearce, incorporation in Fijian targets the highest head of the verbal complement (articles are excluded because they have no intrinsic semantic features). Thus, while both type I and type II structures involve DP complements, proper nouns and pronouns move from D to V. Common nouns can incorporate only when there is no article heading their DP projection. Pearce's syntactic analysis of type I and type II structures is as in 35a and 35b, respectively.

(35) a. $[_{VP}$ V-ta $[_{DP}$ na $[_{NP}$ gone]]]
b. $[_{VP}$ V-ti-koya$_i$ $[_{DP}$ t$_i$ $[_{NP}$ t$_i$]]]

I show first that the properties that type II objects share with type III objects, and which make them different from type I objects, are independently accounted for under the hypothesis that type II objects are complements of V, not incorporated nominals. Consider first the placement of an object with respect to the adverbial particles. Pearce claims that type II and type III clauses have incorporated heads because in neither case can a postverbal adverbial particle separate the object from the verb. However, an alternative explanation has already been suggested by Alderete (1998), who claims that adverbial particles demarcate the right edge of the VP. In Alderete's analysis, type II objects and type I objects differ with respect to their placement relative to the adverbial particles because the former are inside the VP, but the latter are outside the VP, adjoined to the clause.

Next, consider the absence of determiners in type II and type III sentences. Pearce also argues that this shows a closer connection between the verb and the object in these sentence types than in type I sentences. But I have already argued that a generalization about the distribution of proper articles in type II constructions and in prepositional phrases can be captured by the Fijian VP hypothesis. Proper nouns and pronouns lack determiners when they are the complement of a case-assigning head (V or P). Under the D-incorpo-

ration analysis, by contrast, no generalization of this sort can be made. The absence of determiners from pronouns and proper nouns in PPs has to be stipulated independently of their absence in type II constructions. I conclude that omission of the proper article in type II constructions is not evidence against the hypothesis that type II objects are complements of V. On the contrary, once the distribution of articles in other phrases is considered, article omission turns out to be evidence in favor of such a hypothesis.

Finally, consider the absence of the *-a* suffix in type II and type III clauses. Pearce is not explicit about the nature of the *-a* suffix, but it seems that she analyzes it as a third-person suffix, agreeing with an overt DP in object position.[9] There are, however, two observations that Pearce's analysis cannot account for. Consider the examples in 26a and 5, repeated below for convenience as 36a and 36b, respectively.

(36) a. e dau kodro-vi **ira** na vulagi na koli
3SG HAB bark-TR them DET visitor DET dog
'The dog usually barks at visitors.'

b. e roqo-ta tiko na marama
3SG hold-TR CNT DET woman
'The woman is holding him.'

As shown in 36a, the final *-a* of the transitive suffix can be replaced by a strong pronoun, while still occurring with a free-standing object. According to the Fijian pronominal object hypothesis, the pronoun *ira* '3PL' in 36a is the complement of V, licensing the dislocated DP *na vulagi* 'the visitor' just as an empty *pro* identified by the *-a* suffix does. The D-incorporation analysis, by contrast, would have to postulate the existence of two DPs in object position, one for the trace of the pronoun, another one for the common noun. Moreover, an analysis of the *-Ca* suffix as a mere morphological variant conditioned by the presence of a type I object also fails to explain the occurrence of the *-Ca* suffix in sentences with null objects, as in 36b. Pearce's analysis not only would require phonologically null object pronouns in the grammar of Fijian, but would also classify these pronouns with type I objects (i.e. common nouns), not with other overt pronominal expressions (which are type II). But the Fijian pronominal object hypothesis correctly predicts that sentences with null anaphora in Fijian should be type I constructions. Pearce's failure to provide a convincing account of verbal morphology differences across the three clause types, beyond the descriptive level, is a compelling reason to discount her claims about transitivity in Fijian.

Thus, the similarities between type II and type III sentences, even if suggestive of a D-incorporation analysis, are independently accounted for under the hypothesis that type II objects are complements. The D-incorporation hypothesis, then, is no more explanatory than the Fijian VP hypothesis. Moreover, there are general differences between type II and type III sentences that the D-incorporation analysis cannot explain, but that the Fijian VP hypothesis captures in a natural way. To begin, Pearce offers no explanation for an obvious contrast between type II and type III sentences: the distribution of the *-Ci* suffix (she focuses mostly on the similarities between the two types). In Pearce's account, the *-Ci* suffix deletes before an incorporated common noun, but not before an incorporated pronoun or proper noun. This is a stipulation about the morphology of the Fijian verb, which follows from no other aspect of the grammar. In my analysis, by contrast, the difference is a direct result of the fact that type III objects form a

[9] Kikusawa (2000a, 2001) analyzes type II objects as clitics. She suggests that object pronouns in type II constructions are ambiguous, sometimes behaving as agreement markers. Her proposal does not, however, account for the similarities between pronouns and proper nouns in type II constructions.

morphological unit with the verb, but type II objects do not. As discussed earlier, the *-Ci* suffix derives a verb with two arguments from a single argument root. Assuming a LATE INSERTION model of the interaction between lexicon and syntax (Halle & Marantz 1993), *-Ci* suffixation creates a Vocabulary item that can only be inserted under a V head with two arguments. An extension of late insertion to the analysis of noun incorporation is proposed in Haugen 2009. In this model, the derivation of a Vocabulary item consisting of a verb and its incorporated noun is separate from the syntactic operation that adjoins the head of a complement DP to V, leaving behind a trace.[10] In my analysis, the word-formation process that results in incorporation has the same effect as *-Ci* suffixation, deriving a Vocabulary item that can only be inserted under a syntactic verbal head with two arguments, one of which is projected as the trace of head movement.

There are additional differences between type II and type III constructions that are not directly observable. It is a well-known fact about NI that it often reduces the transitivity of a clause. As I show in the next sections, this prediction is indeed the right one for Fijian. The evidence comes from the interaction between NI and two other structures that involve valence-changing operations in Fijian: applicatives and causatives. After discussing these facts, I argue that they provide additional evidence against the D-incorporation hypothesis.

4.3. VALENCE REDUCTION IN TYPE III CONSTRUCTIONS: EVIDENCE FROM APPLICATIVES. In addition to the suffix *-Ci*, some Fijian verbs have a two-syllable suffix of the general shape *-Caki*. One of the functions of this suffix, in comparison to the short one, is to express intensity in the way the object is affected by the action (Geraghty 1983, Schütz 1985, Tamata 2003). This is seen in the contrast between *moku-ta* 'hit' and *moku-laka* 'beat up', where the form with the long suffix signals a more affected object. Consistent with this semantic function, the *-Caki* suffix also marks an object that is added to a predicate with the role of cause/reason or instrument/comitative. The intransitive verbs *kedru* 'snore' and *caroba* 'fall', shown in 37, take an object with such roles if followed by *-taki*, as in 38.

(37) a. e kedru
3SG snore
'He snored.' (Schütz 1985:111)

b. e caroba
3SG fall
'He fell face down.'

(38) a. e kedru-**taka** na ka
3SG snore-TR DET thing
'He is snoring because of something or other.' (Schütz 1985:135)

b. e caroba-**taka** na ivola
3SG fall-TR DET book
'He fell face down with the book.' (Schütz 1985:138)

One of the functions of the long transitive suffix, then, is to license applied objects (on applicative constructions see Chung 1983, Baker 1988, Bresnan & Moshi 1990,

[10] Haugen's analysis is developed to account for the doubling of an incorporated noun by a hyponymous object in some languages. Incorporation creates a chain of abstract features in the syntax by copy-movement. Those features do not correspond to actual words, and can be independently spelled-out by noncognate Vocabulary items. Recent proposals within the minimalist program place head movement outside the realm of narrow syntax (Chomsky 2001, Barrie & Mathieu 2012). The role head movement plays in NI is defended in Baker 2009 and Roberts 2010.

Alsina & Mchombo 1993, among others). Fijian applied objects take over the role of the primary object, as the contrast between 39a and 39b shows. This alternation is particularly productive with some verb classes. Objects referring to the goal of motion alternate with applied objects referring to the means of motion, as in 40a–b. Also, the canonical goal of BALLISTIC verbs alternates with applied objects referring to the instrument or projectile, as in 41a–b. Notice that there cannot be two objects in Fijian. In 41b the goal is realized as the oblique form *vua*.

(39) a. au a kaba-ta na ulu ni vanua ya
1SG PST climb-TR DET mountain that
'I climbed that mountain.'
b. au a kaba-**taka** cake na kuila
1SG PST climb-TR DIR DET flag
'I climbed up with the flag.'

(40) a. au a soko-ta na yanuyanu
1SG PST sail-TR DET island
'I sailed to the islands.'
b. au a soko-**taka** na waqa
1SG PST sail-TR DET canoe
'I sailed in the canoe.'

(41) a. au a viri-ki koya e na vatu
1SG PST throw-TR him at DET stone
'I threw a stone at him.'
b. au a viri-**taka** vua na polo
1SG PST throw-TR to.him DET ball
'I threw the ball to him.'

Applied objects, then, cannot cooccur with canonical objects, since applied objects assume the only available object function in the predicate. Interestingly, a type III construction can also have an applied object, as shown in 42.

(42) e kaci-**tevoro-taka** na bokola na turaga
3SG call-spirit-TR DET captive DET chief
'The chief is calling evil spirits to harm the captives.'

The incorporated noun *tevoro* 'spirit' is followed by a long transitive suffix that introduces an applied object *na bokola* 'the captives', with the meaning that harm is inflicted on them. Since Fijian applied objects take on the function of primary object, the example in 42 shows that a type III object does not function as a syntactic object at all, making this function available for another argument in the applicative construction. This kind of reduction in valence for the purpose of facilitating the formation of an applicative construction is characteristic of NI in some languages, according to Mithun (1984). In example 43 from Yucatec Mayan, when a noun like *če'* 'tree' incorporates, it VACATES the direct object function, making it possible for the locative argument *in-kool* 'my field' to be realized as the object. The applicative nature of the construction is morphologically marked by the transitive suffix *-t-* following the incorporated noun.

(43) k-in-č'ak-**če'-t**-ik in-kool
INCOMP-I-chop-tree-TR-IMPF my-cornfield
'I clear my cornfield.' (Bricker 1978, cited in Mithun 1984:858)

The parallel between the Yucatec Mayan example analyzed by Mithun and the Fijian example in 42 is quite remarkable. Because type III constructions in Fijian can expand with an applied object, the conclusion is that type III constructions are not transitive.

4.4. VALENCE REDUCTION IN TYPE III CONSTRUCTIONS: EVIDENCE FROM CAUSATIVES. Causative constructions provide additional evidence for the claim that type III constructions are less transitive than type II or type I constructions. Fijian causatives are formed by prefixing *vaka-* (or its allomorph *va:-*) to a verbal root. Examples 44a–b show causative constructions with the intransitive verbs *mate* 'be dead' and *tagi* 'emit sound'. In these sentences the argument that corresponds to the subject of the intransitive verb (i.e. the CAUSEE) is realized as a null argument or as a type I object, and the verb is marked by the short transitive suffix.

(44) a. e **vaka-mate-a**
3SG CAUS-dead-TR
'He killed him.' (Schütz 1985:190)

b. e **vaka-tagi-ca** na sici o koya
3SG CAUS-sound-TR DET horn DET he
'He made the horn sound.'

Causatives can also be formed on transitives, but in this case the distribution of the *vaka-* prefix is sensitive to the contrast between active and stative roots discussed in §2.4. The causative prefix can attach to transitives derived from active roots, like *kania* 'eat', as in 45a, but transitives derived from stative roots like *tara* 'build' or *bulu* 'bury' must figure in periphrastic causatives instead, headed by the verb *vakavuna* 'cause, force to', as in 45b–c.

(45) a. e **va-kani-a** na koli e na benu o Mere
3SG CAUS-eat-TR DET dog at DET leftovers DET Mere
'Mere made the dog eat the leftovers.'

b. na turaga e a **vaka-vu-na** me ra **tara:** e dua na bure
DET chief 3SG PST CAUS-do-TR SUB 3PL build.TR 3SG one DET hut
'The chief made them build one hut.'

c. na turaga e a **vaka-vu-na** me ra **bulu-ti** koya/Ulu na marama
DET chief 3SG PST CAUS-do-TR SUB 3PL bury-TR him/Ulu DET woman
'The chief made the women bury him/Ulu.'

The contrast between transitives and intransitives in the formation of causatives can be explained in the following way: the single argument of the verb root, whether a stative or an active one, is always realized as the object of the causative verb. If the root is not expanded with any other arguments, no problem arises: the object of the causative will be the internal argument of the base (44a) or the external argument, if the base is an active predicate (44b). If the root verb is expanded with an additional argument, this argument must be realized as an oblique. This can be seen in 45a, where the agent of an active predicate is realized as the object of the causative, while the patient is coded in a prepositional phrase. If a stative root is expanded with an agent in a causative construction, the object will be reserved for the patient, forcing the agent to be realized as an oblique. In Fijian, however, there are no prepositional phrases to code agents.[11] To express the causative of a transitive verb derived from a stative predicate, then, periphrastic constructions like the ones in 45b–c must be employed instead.

Transitives derived from statives therefore cannot form causatives with the *vaka-* prefix when they have a type I or type II object. However, if the stative root has an incorporated noun (i.e. a type III object), a causative with *vaka-* becomes possible. The

[11] This is clearly stated by Milner (1990 [1956]:97): 'It is not possible in Fijian (as it is in English) to indicate the "agent" of a passive form'.

examples in 46 show causatives of type III constructions. Lexical causatives with *vaka-* are possible with active predicates, as in 46a, and also with stative predicates like *tara* or *bulu*, as in 46b–c. The causee is also realized as a type I object.

(46) a. e a va-**kana-belu**-taka na koli o Mere
3SG PST CAUS-eat-leftover-TR DET dog DET Mere
'Mere fed the dog the leftovers.'

b. na turaga a vaka-**tara-vale**-taki ira na lewe ni koro
DET chief PST CAUS-build-house-TR them DET villagers
'The chief made the villagers build a house.'

c. e a vaka-**bulu-kakana**-taki ira na marama na turaga
3SG PST CAUS-bury-food-TR them DET woman DET chief
'The chief made the women bury the food.'

Notice the usage of the long transitive suffix, attached after the incorporated noun. The reasons for the selection of the long transitive suffix in causatives with incorporated nouns are not immediately clear. The long transitive suffix is used in other cases as well. The first is illustrated by 47a. In this case, the causee is realized as an oblique, not as an object (the object of the causative corresponds to the object of the transitive verbal base). The example in 47b illustrates the second case: the base of the causative is not verbal, but an adjective in a predicative function.

(47) a. au **vaka-rai-taka** vua na vale
1SG CAUS-see-TR to.him DET house
'I showed him the house.' (Schütz 1985:394)

b. e **va-gagalu-taki** ira na gone na qase ni vuli
3SG CAUS-silent-TR them DET boys DET teacher
'The teacher made the boys be silent.'

The contrast between 45b–c and 46b–c is naturally accounted for by the hypothesis that type III constructions have a reduced valence. The trace of the incorporated noun does not count as a syntactic object, even though it is projected from the internal semantic role of the predicate (I return to this issue in the next section). The patient, which would otherwise be mapped onto the object of the causative, is therefore inert from the point of view of linking. This leaves an open slot for the agent to be realized as the object, instead of being forced into an oblique. The hypothesis that type III objects are incorporated nouns, but type II objects are phrasal constituents of the VP, then, explains the difference in transitivity between type II and type III constructions that causative formation makes apparent.

4.5. EVALUATING THE EVIDENCE AGAINST THE D-INCORPORATION ANALYSIS. The kind of valence reduction observed in Fijian type III constructions is a very common crosslinguistic feature of NI. This is particularly clear in languages with ergative-absolutive case-marking systems, like Chukchi (Hopper & Thompson 1980, Spencer 1995) or Tongan (Mithun 1984). There are many languages, however, in which clauses with incorporated nouns remain transitive. Rosen's (1989) survey divides clauses with NI into two major classes according to their transitivity properties. CLASSIFIER NI does not change the valence of the clause, but COMPOUND NI does (but see Chung & Ladusaw 2004 for a more detailed assessment of Rosen's generalizations). The head-movement theory of NI proposed in Baker 1988 seems to be more adequate for classifier NI languages like Mohawk, for which it was initially developed. However, an extension of the theory to compound NI languages is outlined in Baker et al. 2005. The hypothesis presented there is that the trace of the incorporated noun lacks agreement features (i.e.

φ-features like person, number, and gender) in languages where incorporation reduces the valence of the clause. Lacking φ-features, the trace of the incorporated object does not require an agreement affix on the predicate. Here I adopt this analysis to account for the intransitive nature of Fijian type III constructions.[12]

To summarize, there are several respects in which type II objects do not pattern with type III objects. Verbs in type III constructions do not have the transitive suffix *-Ci*, but verbs in type II constructions do. Type III objects can precede the long transitive suffix, but type II objects cannot. Finally, there is evidence that type III constructions are intransitive, but type II constructions are syntactically transitive. These contrasts between type II and type III constructions follow with maximum generality from the hypothesis that there is a structural difference between them: type II objects are phrasal constituents of the VP, merging with a V head in the syntax, while type III objects are incorporated nouns.

The D-incorporation analysis, by contrast, proposes that type II and type III clauses are structurally equivalent. Pearce (2001) suggests that in both cases the head of a complement phrase incorporates to form a morphological unit with the verb. The contrasting properties of type II and type III clauses, then, have to be stated in terms of the categories of the incorporated heads. This leads to a loss of generality, since the differences between type II and type III objects have to be stipulated independently each time. For instance, if type II and type III objects have the same structural representation, it has to be stipulated that incorporation of a common noun reduces the valence of a predicate, but incorporation of a pronoun or proper noun does not. The fact that this is the same lexical class that follows a short transitive suffix is entirely coincidental. It is logically possible that a reduction in transitivity would be triggered by incorporation of pronouns or proper nouns alone, or that only a subcategory of common nouns (i.e. inanimate ones) would combine with a verbal root to yield an intransitive predicate. Even if a general principle could be proposed to unify the morphological constraints on incorporated Ns versus incorporated Ds, the generalization that the same lexical class that reduces the transitivity of the predicate is the one that has to be immediately adjacent to a verbal root cannot be captured by an analysis that represents type II and type III objects as the result of incorporation. The only obvious advantage of the D-incorporation analysis is that it allows for a general constraint on the distribution of determiners and the relative order of adverbial particles in Fijian, but, as I stated before, these facts are independently accounted for under the Fijian VP hypothesis. This hypothesis, then, captures the generalization about the common properties of pronouns and proper nouns in Fijian without further stipulations, and is therefore more explanatory than the alternative.

The Fijian VP hypothesis also makes the right predictions about a universal constraint preventing incorporation of pronouns and proper nouns. Some exceptions to this tendency are discussed in Johns 2007, but these cases are only possible in certain types of incorporation. In Inuktitut, Johns shows, locative verbs can incorporate the name of a location, along with a preposition. Physical identity verbs can also incorporate proper nouns, and interrogative pronouns can incorporate as well. But Johns argues that incorporation in Inuktitut is not of the same kind as incorporation in a language like Mo-

[12] Baker and colleagues (2005) develop this analysis for Mapudungun, which they argue has compound NI on the grounds that object agreement, which is normally expressed on transitive verbs in this language, is not triggered by incorporated objects. They adopt a copy-chain approach to movement. In their account, head movement involves copying all of the features of the object onto the verb. In classifier NI only the phonological features of the tail are deleted, but in compound NI the φ-features of the tail are deleted as well.

hawk, which she refers to as 'classical incorporation'. In Inuktitut, the verbs that trigger incorporation are a relatively small, closed class, belonging to the category of light verbs. Nouns move to the first slot in the predicate to satisfy a requirement that a root element be placed there. She therefore refers to this kind of incorporation as 'root incorporation'. In languages with classical incorporation like Mohawk, by contrast, incorporation can happen with an open class of verbs. Johns also notes that neither proper nouns nor pronouns incorporate in Mohawk. She concludes that incorporation of nouns and proper nouns may be characteristic of root incorporation, not of classical incorporation. Fijian noun incorporation is of the classical type, not the root type. The fact that pronouns and proper nouns cannot incorporate in Fijian, then, follows from a universal constraint limiting incorporation to common nouns in languages of the former type.

4.6. Morpholexical constraints on NI in Fijian and the Fijian VP hypothesis. More evidence in favor of the analysis of type II objects as independent constituents of VP in Fijian comes from verbs that allow pronouns and proper nouns as complements, but do not allow for incorporated objects. This is typically the case with verbs that are derived from nonverbal roots. The verb *vuke-i* 'help', for instance, can occur in type I and type II constructions, as shown in 48a–b. This verb can also be used as an intransitive, but in this case it requires the prefix *vei-* (48c). When a type III object is attached to this verb, however, the result is the ungrammatical sentences in 49. Notice that NI is not possible with either form of the verb (with or without the prefix).[13]

(48) a. e dau vuke-i ira na tamata o Waisale
3SG HAB help-TR them DET man DET Waisale
'Waisale helps people.'

b. e vuke-i koya tiko o Waisale
3SG help-TR him CNT DET Waisale
'Waisale is helping him.'

c. e dau vei-vuke o Waisale
3SG HAB GNRL-help DET Waisale
'Waisale is always helping.'

(49) a. *e dau vei-vuke-tamata o Waisale
3SG HAB GNRL-help-man DET Waisale

b. *e dau vuke-tamata o Waisale
3SG HAB help-man DET Waisale
'Waisale helps people.'

Another example is the deadjectival verb *vinaka-ti* 'want'. Sentence 50a shows the usage of the adjective *vinaka* 'good, well' as a predicate. In 50b the same root appears in the transitive verb *vinakata*. The contrast between 51a and 51b shows that *vinaka-ti* can have a type II object, but not a type III object.

(50) a. e vinaka na kaloko
3SG good DET watch
'The watch is good.'

b. au vinaka-ta na kaloko
1SG want-TR DET watch
'I want that watch.'

[13] *Vuke-i* belongs to a class of verbs that alternate with complex intransitive forms, formed by prefixation (as is the case with *vei-vuke* 'help (intr.)') or reduplication (as in the alternation between *caka-va* 'do/make it' and *cakacaka* 'work'). Used as a bare root by itself, *vuke* is a noun, not a verb. Otherwise, *vuke-i* has all the properties of a regular transitive verb in Fijian.

(51) a. e sega ni vinaka-ti koya na kapitani
3SG not SUB want-TR him DET captain
'The captain does not want him.'
b. *au sega ni vinaka qase e ke
1SG not SUB want old at here
'I do not want old people here.'

The generalization that emerges from these examples is that type III constructions cannot be formed with roots that are not verbal, even if they can function as the base for verbal lexemes. This constraint does not apply to type II constructions. This generalization is captured by the hypothesis that there is a structural difference between type II and type III objects. The combination of a type III object with a verb is a word-formation process. The category of the root that combines with the noun can be a factor in the morphological constraints this word-formation process is subject to. The roots *vuke-* or *vinaka-* are not of category V—they must combine with a verbalizing derivational affix (the transitivizing suffix *-Ci*, or the intransitivizing prefix *vei-*, in the case of *vuke-*) to derive a verb. Incorporation of the object fails because, at the level where it can take place (i.e. in the morphological component), the root does not satisfy the constraint that it must be a V. Type II objects, by contrast, combine with a V head in the syntax, since they are constituents of the VP. They combine with a V after all morphological processes have taken place, including derivation of a transitive verb by means of the transitive suffix. For a type II object, the internal morphological structure of the verb (i.e. whether its root is of category V or not) is opaque. This is why verbs like *vuke-i* and *vinaka-ti* can be used in type II constructions.

Additional evidence that the verb forms a lexical unit with a type III object, but not with a type II object, comes from the morphology of ditransitives and applicatives. As example 42 (repeated here as 52a) showed, type III objects can precede the long transitive suffix. But if *tevoro* is replaced by a type II object (i.e. a pronoun), the only way to express a similar judgment is by means of a complex clause, as in 52b. A pronoun cannot be followed by a long transitive suffix, as 52c shows, and neither can a proper noun.

(52) a. e kaci-**tevoro-taka** na bokola na turaga
3SG call-spirit-TR DET captive DET chief
'The chief is calling evil spirits to harm the captives.'
b. a kaci-vi **au** mai na turaga me au rabu-ti ira na meca
PST call-TR 1SG DIR DET chief SUB 1SG attack-TR them DET enemies
'The chief called me to attack the enemies.'
c. *e kaci-(vi)-koya-taka na dau rai na turaga
3SG call-(TR)-him-TR DET prophet DET chief
'The chief called him against the prophet.'

These facts can be accounted for under the hypothesis that type III objects are incorporated nouns, while type II objects are phrasal constituents of the VP. A type III object and the verb it attaches to form a morphological unit, which can function as a base for further affixation. This makes attachment of a long transitive suffix to a type III object possible. The fact that type II objects do not allow this is evidence that they do not form a morphological unit with the verb.

The existence of morphological constraints on type III objects provides additional support for the claim that the Fijian VP hypothesis is more explanatory than the D-incorporation hypothesis. Under the D-incorporation hypothesis, the fact that the long transitive suffix can follow common nouns only, but not pronouns or proper nouns, has

to be stipulated. The fact that common nouns cannot combine with roots like *vuke* or *vinaka* has to be stipulated as well, independently of the previous constraint (and of all other properties characterizing type II or type III objects, for that matter). The fact that these constraints target the same lexical categories (Ds vs. Ns) is purely coincidental. It could be possible to imagine a situation in which the distribution of the long transitive suffix was restricted by a different class of lexical categories, limiting it to appear only after inanimate nouns, or allowing it to appear after all nouns (proper and common) but not after pronouns.[14] In sum, all of the available evidence supports the claim that there are three structurally different classes of objects in Fijian, posing a real challenge to Baker's polysynthesis parameter.

5. Fijian and the typology of polysynthesis.

5.1. Configurationality and the polysynthesis parameter. Scholars have debated how to tie together the different properties of languages with free word order at least since Hale's (1983) suggestion that configurationality is not a universal syntactic property. Hale proposes that free word order in languages like Warlpiri results from a flat clause structure. The configurational characterization of subject and object, made available to a language like English because of its hierarchical syntactic structure (i.e. by the existence of a VP constituent), is therefore not possible for a language like Warlpiri. Hale's analysis is controversial from a theoretical point of view, because it proposes a class of languages to which Chomsky's (1981) projection principle does not apply. To circumvent this problem, Jelinek (1984) proposes the PAH. In her analysis, there is no need to have a special mechanism mapping semantic roles onto the constituents of a flat structure. At the same time, she preserves Hale's insight that no empty categories need to be postulated in the syntactic structures of nonconfigurational languages. Baker's (1996) proposal about pronominal argument languages builds on Jelinek's ideas, but it restores even more configurational features to pronominal argument languages by claiming that their arguments are in fact realized by syntactic constituents, albeit by phonologically null ones.

With the morphological visibility condition, Baker derives the various features of a fundamental language type from a very simple principle. Free word order and null anaphora are tightly related to the presence of a verbal affix expressing agreement with the missing or dislocated arguments. But the predictive power of Baker's proposal is challenged at the empirical level, since many languages with free word order lack other properties found in polysynthetic languages. Moreover, some of these properties are also found in nonpolysynthetic languages, raising the question of whether there is any necessary or sufficient clustering of properties to justify a macroparameter. In this section I review these issues, arguing that many of the observations about the properties of languages with free word order do not invalidate Baker's claim that there is a group of languages that can be characterized as polysynthetic. But given the evidence I have presented from Fijian, I suggest that the polysynthesis parameter needs to be weakened, taking into account observations about the relationship between transitivity and person/animacy scales.

One of the most salient features of polysynthetic languages is free word order. In Baker's account, this is due to the fact that polysynthetic languages are pronominal ar-

[14] Matters are complicated, however, by the fact that the long and short transitive suffixes are not always in complementary distribution. They appear together in examples like *tau-ri-vak-a* 'to use it' (from *tau-r-a* 'take it' + *-vaki-*, Schütz 1985:141). I leave a discussion of such examples for later research.

gument languages. But not all languages with flexible word order have a rich system of verbal affixes to link argument structure to syntax. After surveying several Australian languages, Austin and Bresnan (1996) argue that Jiwarli, which has free word order and null anaphora, differs from Warlpiri in having no pronominal clitics. Nominals in Jiwarli relate to the argument structure of the predicate through a rich system of case endings, not by relating to markers on the verb. Austin and Bresnan derive the properties of free word order languages from a flat structure, returning in a way to the spirit of Hale's nonconfigurational analysis.[15]

Legate (2002) offers another alternative. She suggests that free word order in Warlpiri and related languages is the result of scrambling, not of dislocation. Scrambling, which involves movement from an argument position, is the source of variation in the linear arrangement of constituents in languages like Japanese or German. Unlike the dislocated arguments of pronominal argument languages, scrambled arguments do not require to be identified with an agreement morpheme on the head of the predicate. Thus, it is not enough for a language to have free word order to be considered polysynthetic (as Rackowski 2002 shows for Tagalog, for instance).

In order to evaluate these objections to Baker's approach to polysynthesis, it is important first to note that, in Baker's account, incorporation is a necessary property of polysynthesis. Neither Warlpiri nor Jiwarli are incorporating languages. In Australia, only languages like Mayali (i.e. the Gunwinjgwuan family) fit the mold of Mohawk and Nahuatl. Thus, whether Warlpiri's free word order results from a nonconfigurational structure or from scrambling is not directly relevant to a consideration of the structure of polysynthetic languages. In §2.4, I reviewed Legate's arguments in favor of a scrambling analysis of Warlpiri, concluding that they cannot be simply extended to Mohawk or Fijian. What characterizes polysynthetic languages, then, is the confluence of dislocation (which presupposes head marking of arguments) with noun incorporation. This is the insight behind the polysynthesis parameter. Free word order is often a sign of dislocation, Baker (1996) says, but conditions on adjunction may result in a polysynthetic language with rigid word order (i.e. Navajo). Several analytical alternatives (the PAH, scrambling, a flat structure) may explain free word order in nonincorporating languages like Warlpiri, Jiwarli, Straits Salish, or even German and Japanese. But when dislocation is the reason (as in Baker's version of the PAH), then head marking is necessary.

A different sort of obstacle for a macroparametric approach to polysynthesis is found in languages that follow the principle given in 2 above only in part. Bresnan and Mchombo (1987) show that in Chichewa (as in other Bantu languages) object pronominal clitics are not always obligatory. When they occur in the clause, they license an adjoined DP, but verbs can also have a complement DP when the object marker is absent. Baker's (1996) solution is to simply exclude languages like these from the class of polysynthetic languages. Chichewa makes use of the same strategy that a language like Mohawk employs in relating a peripheral DP to the argument structure of the clause (i.e. agreement), he says, but Chichewa is not bound by the morphological visibility condition. Languages like Chichewa, Baker (2003) suggests, are good proving grounds to test

[15] Pensalfini (2004) proposes a configurational analysis of Austin and Bresnan's data. He suggests that polysynthetic languages are characterized by the exclusion of encyclopedic features from argumental positions (encyclopedic features relate to real-world knowledge, and are distinguished from formal/computational features that pertain to the workings of the grammar). Pensalfini's theory, however, fails to account for Fijian, since proper nouns are bearers of encyclopedic features (i.e. their features are not just part of the computational component of the grammar) but can occur inside the VP.

hypotheses about the relationship between agreement and dislocation, which is only a nonessential component of the typological characterization of polysynthetic languages.[16]

The PAH applies to Fijian only in part as well. The data I have discussed here show that principle 2 makes the right predictions for Fijian, but only for a subset of the clauses in the language. Fijian is different from Chichewa in two important respects, though. First, Fijian has productive noun incorporation, so it cannot be discarded as a language of an entirely different type. Because Fijian also allows for some objects to occur inside the VP, it could be construed as a serious counterexample to Baker's claim that all arguments in polysynthetic languages must be morphologically realized on the verb. But here is where the second difference with languages like Chichewa matters. Unlike objects in Bantu, Fijian objects do not alternate freely between their positions as VP complements and adjuncts. The realization of the Fijian object is lexically conditioned by the type of nominal. The exclusion of common noun DPs from the VP thus cannot be attributed to incidental reasons related to the information structure of the clause, as Baker (1996, 2003) does for Bantu. Moreover, the fact that Fijian objects can incorporate (an option not available for Bantu nominals) shows that the polysynthetic features of Fijian do not arise simply out of an independent adoption of a head-marking strategy for certain nominals, but that they are an integral part of the Fijian type. The morphological visibility condition, then, cannot be maintained as a binary option to define a polysynthetic type. It may be preserved in some form, but it must be relaxed or modified to allow for languages like Fijian, with hybrid analytic and polysynthetic properties. In the next section I propose to account for the lexical basis of the mixed properties of Fijian based on a person/animacy-based implicational hierarchy.

5.2. ARGUMENT HIERARCHIES AND THE PERSON/ANIMACY SCALE IN FIJIAN. According to my analysis, only pronouns and proper nouns can occur in the canonical position of the complement of V (i.e. the accusative-marked argument). Common nouns are barred from that position. They are integrated in the clause as dislocated constituents, licensed by a pronominal morpheme. A motivated constraint allowing only pronouns and proper nouns as complements of V therefore constitutes the keystone in an explanation for the complex distribution of Fijian objects. Following Hopper and Thompson's (1980) transitivity hypothesis, I suggest that pronouns and proper nouns can occur as complements of the head of VP because they are more highly individuated than common nouns.

Hopper and Thompson view transitivity as a holistic property of a clause, along a continuum determined by a number of independent morphosyntactic and semantic properties, or dimensions. A clause can be more or less transitive than others depending on how many transitivity properties it has. Properties that contribute to increase the transitivity of a clause are having two or more participants (as opposed to only one), being telic (as opposed to being atelic), having an A argument high in potency (not low), and having a highly individuated O argument (as opposed to a nonindividuated O argument), among others. The transitivity hypothesis states that these properties are expected to covary. That is, if two clauses differ in transitivity along more than one dimension, these dimensions will be oriented in the same direction. In Chukchi, for instance, clauses with NI are marked with the intransitive set of verbal agreement af-

[16] Baker's agreement principle states that 'a verb X agrees with an NP Y if and only if Y is in a dislocated adjunct position' (2003:109). This principle is valid both for Warlpiri and for Chichewa. The reasons for DPs to occur in dislocated positions, though, are not the same for these languages. In Warlpiri, DPs are dislocated because of principle 2. In Chichewa, presumably, they are dislocated because of a contrast in information structure between DPs internal to the VP and dislocated phrases.

fixes. Case marking of the subject, which goes from ergative in 53a to nominative in 53b, also shows that incorporation turns a transitive clause into an intransitive one.

(53) a. tumg-e na-ntəwat-ən kupre-n
friends-ERG set-TR net-ABS
'The friends set the net.'
b. tumg-ət kopra-ntəwat-gʔat
friends-ABS net-set-INTR
'The friends set nets.'

From a morphosyntactic point of view, then, the sentence with NI in 53b is less transitive than its counterpart in 53a, in which the patient is a phrasal complement. The transitivity hypothesis predicts that if these two sentences differ along other dimensions of transitivity, 53a will also be higher than 53b in that respect. The two sentences differ in terms of individuation of O. A definite argument is more individuated than an indefinite or generic argument. Highly individuated Os increase a clause's transitivity coefficient. Therefore, as the transitivity hypothesis predicts, the indefinite O is found in the clause with NI.

Among the factors that increase the individuation of O are the person/animacy features of the object. Proper nouns are more individuated than common nouns, and human (and animate) nouns are also more individuated than inanimate nouns. This is suggestive of a PERSON/ANIMACY SCALE like the one Silverstein (1976) proposes, which I present in a simplified way in 54.

(54) PERSON/ANIMACY SCALE: pronominal > proper > human > animate > inanimate

Based on the scale in 54 and the transitivity hypothesis, it is possible to formulate an implicational transitivity universal: if an argument with person/animacy feature *f* can be realized as an object (i.e. as a phrasal complement of V), then any argument with feature *f′* such that *f′* > *f* can also be realized as an object. A language may arbitrarily rule out an association between the object function and an argument bearing a certain person/animacy feature by setting a cut-off point at any step in the person/animacy scale, but once this step is taken, no argument below that point can be associated with the object function. In Fijian, the cut-off point is below [proper], as stated in 55.

(55) FIJIAN TRANSITIVITY CONSTRAINT: In Fijian, the features of the VP complement must outrank the feature [human] in the person/animacy scale.

In Fijian, then, the only nominal expressions that can occupy the position of complement of V are the ones that are highest in the scale of individuation: pronouns and proper nouns. This follows from the transitivity hypothesis and the Fijian transitivity constraint. Because a clause with a branching VP is high in the structural dimension of transitivity, it is expected that only those arguments whose individuation features also contribute to high transitivity will be able to occur as complements of V. In Fijian, the cut-off point is above the feature [human]. Common nouns are therefore excluded from the position of complement of V. To integrate common noun objects into the structure of the clause, Fijian uses the alternative strategies of dislocation and incorporation.

The implicational hierarchy I am proposing can be used to make some crosslinguistic predictions: languages may set up the cut-off point for what an acceptable object is along any point in the person/animacy scale in 54, but once that happens any object below the cut-off point will not be allowed to occur as a constituent of the VP. A good candidate to test this prediction is Southern Tiwa (Allen et al. 1984, 1990). In this language, pronouns and proper nouns never incorporate, and inanimate nouns always do.

Incorporation of human and animate nouns is optional.[17] Rosen (1990) proposes a hybrid hierarchy of nominal features (including person/animacy features) to account for the constraints on noun incorporation. She suggests that 'free-standing nominals are those that link to some high category on the hierarchy' (1990:680). Other nominals must incorporate. Frantz (1990) proposes the LEXICAL HEAD ANIMACY CONSTRAINT, requiring that lexical heads of objects (and subjects) be animate. That is, Southern Tiwa sets a lower cut-off point than Fijian in the person/animacy scale for objects. At the right end of the hierarchy are languages like English, which have no paradigmatic restrictions on the kind of person/animacy features associated with objects.

There are other languages that set up a higher cut-off point than Fijian in the person/animacy scale. In Rotuman and the Western Fijian languages, for instance, type II objects may only be pronominal, excluding proper nouns and common nouns (Kikusawa 2001, Kissock 2003). At the left end of the hierarchy are languages that only allow objects with empty heads. These are the canonical polysynthetic languages like Mohawk and Mayali. The positions of these languages relative to their cut-off points in the person/animacy scale are summarized in Figure 1.

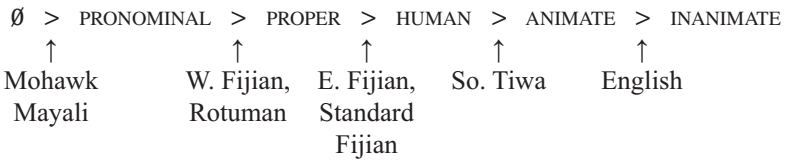

FIGURE 1. Cut-off points in the person/animacy scale.

This comparison of a small set of languages is not intended as a fully developed typological proposal. To begin with, a sound argument must be based on a larger language sample. Moreover, the existence of a language with a cut-off point below [human] for complements of V is predicted, but I do not know of any languages with that property. What this comparison makes apparent is that Fijian occupies a half-way point between analytic languages like English and polysynthetic languages like Mohawk or Mayali.

5.3. ALTERNATIVE VIEWS OF PERSON/ANIMACY, DEFINITENESS, AND TRANSITIVITY. An alternative account of the Fijian facts is proposed in Alderete 1998, where the contrasts between type I and type II sentences are framed in terms of CATEGORIAL GRAMMAR. Pronouns and proper nouns, Alderete says, are entity-referring expressions of type <e>. They can easily combine with transitive verbs, which are of type <e,<e,t>>, to yield an intransitive verb. DPs headed by common nouns, by contrast, are quantificational in nature, being of type <<e,t>,t>. For a transitive verb to compose with an expression of type <<e,t>,t>, an additional semantic operation (i.e. QUANTIFIER RAISING, TYPE-LIFTING) is necessary. Alderete's hypothesis is that Fijian lacks such a semantic operation, and that therefore a sentence in which a quantificational DP is the complement of a transitive verb cannot be assigned an interpretation.

Even if Alderete's hypothesis makes the right predictions for Fijian, it cannot explain the typological implicational generalization represented in Fig. 1. Alderete's is a binary account, dividing the classes of expressions that can or cannot occur as complements of

[17] There are additional constraints on incorporation in Southern Tiwa, which are not directly relevant to the present discussion. Human objects are obligatorily incorporated if they are plural, but only if they do not occur with a modifier. When the subject is third person, however, incorporation of animate singular nouns is obligatory. This may point toward a parallel syntagmatic constraint on incorporation.

V along a rigid, discrete line based on semantic types. A characterization of pronouns and proper nouns as a natural class in terms of their semantic type does not lend itself naturally to the formulation of a hierarchy of nominals. Therefore, to explain the state of affairs of a language like Rotuman, for instance, in which only pronouns are allowed to occur in the position of complement of V, an entirely different mechanism will need to be provided. My account, by contrast, captures an important dimension of typological variation, and is more explanatory in this respect.

The Fijian transitivity constraint rests on a general assumption about the marked values for canonical objects: that the higher in the person/animacy scale an object is, the less marked it is. This assumption may seem controversial, since the opposite view is also defended in the literature. Aissen (1999, 2003), following on Silverstein's (1976) insights about the effects of person/animacy of split ergative systems, proposes an implicational markedness hierarchy with the reverse orientation: the higher in the person/animacy scale an object is, the MORE MARKED it is. The insight behind this approach is that when a human agent acts on an inanimate patient, the roles of the participants can be understood from their semantic features, since this seems to be the prototypical transitive action. Only when an event departs from this prototype does it seem necessary to mark the arguments by special means. Split ergative systems provide Silverstein (1976) with empirical support for this theory. Support for Aissen's model comes from person/animacy effects on passivization in Salish. In this language family, passive tends to be applied to avoid active sentences in which a patient argument high in the person/animacy scale would be linked to an object.

The tension between these two views of markedness and transitivity is already apparent in Hopper and Thompson's (1980) discussion of definiteness. For them, indefiniteness contributes to lower the individuation of the object, and therefore correlates with low transitivity. But Comrie (1977) proposes the opposite view, based on the idea that the prototypical action consists of a definite (or topical) agent acting on an indefinite (nontopical) patient. What Hopper and Thompson propose is that there are two different ways of looking at the effects of definiteness and transitivity. The unmarked object tends to be LESS definite than the SUBJECT, but it also tends to be MORE definite than OTHER (MARKED) OBJECTS. The difference is between a SYNTAGMATIC and a PARADIGMATIC view of definiteness: indefinite objects are unmarked when the subject of the same clause is considered (syntagmatic view), but they are marked with respect to definite objects in other clauses (paradigmatic view).

The apparent contradiction between the model of person/animacy effects on transitivity I am proposing for Fijian and Aissen's model can be resolved in the same way. Aissen's constraints are syntagmatic; they penalize objects that are higher than the subject in the person/animacy scale. The constraints I am proposing are paradigmatic: they penalize objects that are less animate than other objects, in other clauses. Some recent studies show that other data that are problematic for the Silverstein-Aissen model of person/animacy and markedness can be accounted for once the existence of paradigmatic constraints alongside syntagmatic constraints is recognized (Næss 2004, de Hoop & Narasimhan 2008, Aranovich 2009). My analysis of complementation in Fijian provides additional support for this elaborated view of markedness and argument realization.

There is another aspect of my analysis of transitivity in Fijian that seems to be at odds with previous work. I have argued that the objects that are allowed to remain inside the VP are inherently definite (pronouns and proper nouns). This is the opposite of the DEFINITENESS EFFECT, by which objects inside the VP tend to be interpreted as nonreferential. I argue, however, that an analysis of Fijian transitivity based on Hopper and

Thompson's transitivity hypothesis is not inconsistent with a theory of indefiniteness like the one developed in Diesing 1992. Diesing assumes that sentences have a semantic representation consisting of an operator, its restriction, and its nuclear scope. Indefinite DPs introduce free variables into the semantic representation of a clause. If an indefinite is in the nuclear scope, the free variable it introduces is bound by an existential quantifier (existential closure), yielding a cardinality reading. But indefinites are ambiguous between this cardinality reading, which is nonpresuppositional, and a presuppositional reading, under which they behave like strongly quantified DPs. Presuppositional indefinites, Diesing suggests, must be outside the nuclear scope, inducing their own restriction. Diesing also notes a syntactic effect on the interpretation of indefinites: only those indefinite DPs that are inside the VP receive a cardinal interpretation, while indefinite DPs that are extracted from the VP (either overtly or at LF) are always presuppositional. To explain this, she proposes the MAPPING HYPOTHESIS, according to which the VP is mapped onto the nuclear scope, and nodes above the VP are mapped onto the restriction (this mapping of syntax onto semantics takes place at LF). Diesing concludes that 'all existential, nongeneric indefinite DPs that have no quantificational force of their own must be within the VP after tree-splitting applies (whether at LF or S-structure)' (1992:57).

First, it is not clear how to derive any restrictions on the distribution of referential expressions like pronouns and proper nouns from Diesing's theory. This theory accounts for the fact that INDEFINITE DPs have an existential, nonpresuppositional interpretation inside the VP, due to the fact that the free variable they introduce undergoes existential closure in the nuclear scope associated with the VP. Because referential expressions like pronouns and proper nouns do not introduce any variables, whether they are inside or outside the VP is immaterial to their interpretation. In this sense, then, the hypothesis that type II objects are inside the VP in Fijian does not contradict Diesing's approach to indefiniteness. Moreover, my claim is that type II objects are inside the VP in the overt syntactic representation of the clause. Tree-splitting takes place at LF, though, so it is conceivable that type II objects undergo some sort of covert raising to escape from the nuclear scope, like other DPs with strong quantifiers.

Second, not all indefinite DPs are confined to the VP in Diesing's theory. Only those that have cardinal, nonpresuppositional readings must be inside the VP when tree-splitting applies. Indefinites may be outside the VP, but in that case they are always presuppositional. Assuming that type I objects are indefinite, her theory predicts that they are mapped onto the restriction, not the nuclear scope. Therefore, type I objects should always be presuppositional. In fact, Jelinek (1995) proposes that in pronominal argument languages there are no definite determiners. Discussing the fact that strong quantifiers in Straits Salish are adverbial, instead of being realized as determiners with scope over a lexical argument, she suggests that in pronominal argument languages 'adjoined DET P can have either definite or indefinite readings, with corresponding differences in their relationship to main clause arguments' (Jelinek 1995:532). This is also true for the determiner *na* in Fijian, as Milner says: 'in general, *na* corresponds to the definite article in English, but it may often be found in phrases where English would use an indefinite article or no article at all' (1990 [1956]:11). Thus, even though *na* is often translated and analyzed as a definite determiner (Schütz 1985), it shows up in equational (56a) and existential (56b) sentences, where only indefinite DPs occur across languages.

(56) a. na kena iliuliu **na kanala**
DET POSS.3SG leader DET colonel
'Its leader is a colonel.' (Schütz 1985:80)

b. e sega **na raisi**
3SG exists.not DET rice
'There isn't any rice.' (Schütz 1985:101)

The hypothesis that type I objects are outside the VP, then, does not contradict Diesing's theory. On the contrary, the fact that type I objects receive a definite interpretation follows from an analysis in which *na*-DPs have no quantificational force of their own, and are placed outside the VP. In that structural position they can only have a presuppositional reading, not a cardinal one. For a nonpresuppositional reading to arise, an object must incorporate, or be in a clause where existential closure applies, like those in 56. This is exactly the situation in which Jelinek's (1995) treatment of adverbial quantification in pronominal argument languages predicts nonpresuppositional readings to arise.

5.4. CONCLUSIONS. In this article I have established that there are three structurally distinct objects in Fijian. Type I objects are dislocated constituents, type II objects are complements of V, and type III objects are incorporated nouns. This analysis accounts for their differences and similarities in the most general way. Unlike type II or type III objects, type I objects are licensed by an *-a* suffix on the verb. I analyzed this suffix as an agreement marker, identifying an empty *pro* in the position of complement of V. Type I objects, then, are adjuncts, licensed by the empty *pro* through coindexation. This amounts to saying that type I objects are dislocated, as explicitly stated in the Fijian pronominal object hypothesis. I have also shown that other characteristic properties of type I structures follow from the Fijian pronominal object hypothesis: the placement of type I objects after all adverbial particles, and the obligatory presence of a determiner in the structure of type I objects. In addition, the Fijian pronominal object hypothesis accounts for the fact that type I objects may be null, that they can be freely ordered with respect to the subject and other adjuncts, and that they cannot have quantificational determiners. These are the properties that characterize pronominal argument languages, as stated in 1. The conclusion that Fijian is polysynthetic, in the sense of Baker (1996), follows from the fact that type III objects can also be incorporated.

But I have also shown that this cannot be the whole story for Fijian, since type II objects have features that make them distinct from both type I and type III objects. On the one hand, like type I structures, type II structures have verbs with the *-Ci* suffix and behave as transitive clauses. I explained these facts under the hypothesis that type II objects do not form a morphological unit with the verb (against Pearce 2001). On the other hand, type II objects precede adverbial particles, lack determiners, and do not trigger object agreement. I accounted for these facts under the hypothesis that type II objects are sisters of V. Fijian thus is not a fully polysynthetic language. But rather than interpret this fact as an exception to Baker's (1996) polysynthesis parameter, I suggested that it calls for a weaker version of the principle, given the lexical nature of the contrast between Fijian type II objects and the other two types. Type II objects are pronouns and proper nouns, while type I and type III objects are common nouns. Type II objects are therefore at the top of a person/animacy scale, which has been shown to covary with a scale of transitivity (Hopper & Thompson 1980). Thus, in Fijian, the morphological visibility principle applies only to those objects that are relatively low in the person/animacy scale, as stated in the Fijian transitivity constraint.

Baker (1996) considers the polysynthesis parameter to be a macroparameter, a 'fundamental and pervasive' feature of a language, which is 'so deeply embedded in the grammar as to affect all kinds of linguistic structure' (1996:3). In this sense, Baker's conception of a parameter, inspired by Sapir's (1921) idea that languages have a 'struc-

tural genius', goes beyond Chomsky's (1981), who suggests that a variety of independent parameters, rather than a single factor, is responsible for the shape the grammar of a language takes. Objections have been raised against the macroparametric approach to typology, however, on the grounds that the clustering of grammatical properties it predicts is rarely without exceptions. Concerning the different features that characterize pronominal argument languages, for instance, Legate (2002) concludes that they are actually individually specified for each language, and that they do not derive from a principle excluding expressions with overt phonological features from argument positions. According to Legate, 'languages vary microparametrically, with the collection of parametric choices sometimes producing a strikingly different superficial appearance' (2002:104). She argues that mechanisms that are available in analytic languages can be used to account for each of the characteristic properties of pronominal argument languages, therefore making it unnecessary to propose a structurally different pronominal argument type.[18]

Similar conclusions are reached in LeSourd 2006 for the Algonquian languages, and in Adger et al. 2009 for Kiowa. LeSourd's (2006) argument is based on evidence from secondary objects, comitatives, and discontinuous DPs in Maliseet-Passamaquoddy. Secondary objects are not cross-referenced by object markers, but they display the same nonconfigurational properties as other arguments. Comitatives and other arguments are cross-referenced in the verbal morphology in a way that suggests violations of condition C. Finally, discontinuous constituents have syntactic restrictions, with the determiner always preceding the noun. Adger and colleagues (2009) argue against a macroparametric approach to polysynthesis on the grounds that Kiowa has 'nonconfigurational properties' like free word order, split DPs, and null anaphora, alongside 'configurational' properties like quantificational DPs and focus-marked elements. Following Legate's (2002) analysis of Warlpiri, they argue that the Kiowa clause is hierarchically organized, and that a number of microparameters conspire to give the impression of a language without major constituents in its structure. Thus, Adger and colleagues reject an analysis of the Kiowa clause in which major constituents are dislocated, as in Baker's approach to Mohawk. However, Kiowa is not polysynthetic in the technical sense of the term. Even though related to Southern Tiwa (in the Kiowa-Tanoan family), Kiowa does not have the kind of ROBUST incorporation that characterizes languages like Mohawk, as Adger and colleagues acknowledge. The claim that Kiowa is not a pronominal argument language, then, is not an argument against the close connection between dislocation and incorporation that forms the core of Baker's polysynthesis parameter. LeSourd, by contrast, shares 'the caution that Jelinek and Baker have urged in connection with proposals that seek to identify the PAH for apparent nonconfigurational structure in all languages in which such surface syntax is correlated with complex argument-indexing inflection' (2006:488), leaving open the possibility that the PAH provides the right analysis for some other languages.

Thus, while it is tempting to extend the PAH to languages that exhibit some of the properties listed in 1, it is dangerous to do so without careful analysis of their particular morphosyntactic features. The objections raised in the microparametric approach target the assumption that there is a checklist of grammatical properties that a language must satisfy to belong to a given type, and that such properties follow directly from a

[18] The availability of discontinuous DPs, for instance, is a notorious feature of the Warlpiri clause, but it is also found in some Slavic languages, therefore supporting the microparametric approach (see Baker 1996 for additional discussion of discontinuous constituents in polysynthetic languages).

macroparametric setting. But in the framework of Baker 1996, parameters are rather abstract properties of a grammar, which impact linguistic structures only indirectly. Other syntactic principles and lexical properties of the language may mask the effects of the macroparameter, forcing the linguist to look beyond superficial properties of the language. In the case of Fijian, its polysynthetic nature comes to the surface only after the properties of the three object types are carefully contrasted, revealing how the morphological visibility principle is mediated by Hopper and Thompson's (1980) transitivity hypothesis. By adding Fijian to the list of polysynthetic languages, then, we get a better understanding of the relationship between the universal and the particular in linguistic theory.

REFERENCES

ADGER, DAVID; DANIEL HARBOUR; and LAUREL J. WATKINS. 2009. *Mirrors and microparameters*. Cambridge: Cambridge University Press.

AISSEN, JUDITH. 1999. Markedness and subject choice in optimality theory. *Natural Language and Linguistic Theory* 17.673–711.

AISSEN, JUDITH. 2003. Differential object marking: Iconicity vs. economy. *Natural Language and Linguistic Theory* 21.435–83.

ALDERETE, JOHN. 1998. Canonical types and noun phrase configuration in Fijian. *Recent papers in Austronesian linguistics: Proceedings of the third and fourth meetings of the Austronesian Formal Linguistics Association*, ed. by Matthew Pearson, 19–44. Los Angeles: UCLA Department of Linguistics.

ALDRIDGE, EDITH. 2004. *Ergativity and word order in Austronesian languages*. Ithaca, NY: Cornell University dissertation.

ALLEN, BARBARA J.; DONALD G. FRANTZ; DONNA B. GARDINER; and DAVID PERLMUTTER. 1990. Verb agreement, possessor ascension, and multistratal representation in Southern Tiwa. *Studies in relational grammar 3*, ed. by Brian D. Joseph and Paul Postal, 321–84. Chicago: University of Chicago Press.

ALLEN, BARBARA J.; DONNA B. GARDINER; and DONALD G. FRANTZ. 1984. Noun incorporation in Southern Tiwa. *International Journal of American Linguistics* 50.292–311.

ALSINA, ALEX, and SAM A. MCHOMBO. 1993. Object asymmetries and the Chichewa applicative construction. *Theoretical aspects of Bantu grammar 1*, ed. by Sam A. Mchombo, 17–45. Stanford, CA: CSLI Publications.

ARANOVICH, RAÚL. 2009. Feature-based argument mapping and animacy optimization in impersonal passives. *Linguistics* 47.619–52.

ARMS, DAVID GEORGE. 1974. *Transitivity in Standard Fijian*. Ann Arbor: University of Michigan dissertation.

AUSTIN, PETER, and JOAN BRESNAN. 1996. Non-configurationality in Australian Aboriginal languages. *Natural Language and Linguistic Theory* 14.215–68.

BACH, EMMON; ELOISE JELINEK; ANGELIKA KRATZER; and BARBARA H. PARTEE (eds.) 1995. *Quantification in natural languages*. Dordrecht: Kluwer.

BAKER, MARK C. 1988. *Incorporation: A theory of grammatical function changing*. Chicago: University of Chicago Press.

BAKER, MARK C. 1995. On the absence of certain quantifiers in Mohawk. In Bach et al., 21–58.

BAKER, MARK C. 1996. *The polysynthesis parameter*. Oxford: Oxford University Press.

BAKER, MARK C. 2003. Agreement, dislocation, and partial configurationality. *Formal approaches to function in grammar*, ed. by Andrew Carnie, Heidi Harley, and MaryAnn Willie, 107–32. Amsterdam: John Benjamins.

BAKER, MARK C. 2009. Is head movement still needed for noun incorporation? *Lingua* 119.148–65.

BAKER, MARK C.; ROBERTO ARANOVICH; and LUCÍA A. GOLLUSCIO. 2005. Two types of syntactic noun incorporation: Noun incorporation in Mapudungun and its typological implications. *Language* 81.138–76.

BARRIE, MICHAEL, and ERIC MATHIEU. 2012. Head movement and noun incorporation. *Linguistic Inquiry* 43.133–42.

BRESNAN, JOAN, and SAM A. MCHOMBO. 1987. Topic, pronoun, and agreement in Chichewa. *Language* 63.741–82.
BRESNAN, JOAN, and LIOBA MOSHI. 1990. Object asymmetries in comparative Bantu syntax. *Linguistic Inquiry* 21.147–85.
BRICKER, VICTORIA. 1978. Antipassive constructions in Yucatec Maya. *Papers in Mayan linguistics*, ed. by Nora C. England, 3–24. Columbia: University of Missouri.
CHOMSKY, NOAM. 1981. *Lectures on government and binding*. Dordrecht: Foris.
CHOMSKY, NOAM. 2001. Derivation by phase. *Ken Hale: A life in language*, ed. by Michael Kenstowicz, 1–52. Cambridge, MA: MIT Press.
CHUNG, SANDRA. 1983. An object-creating rule in Bahasa Indonesia. *Studies in relational grammar 1*, ed. by David Perlmutter, 219–71. Chicago: University of Chicago Press.
CHUNG, SANDRA. 2008. Indonesian clause structure from an Austronesian perspective. *Lingua* 118.1554–82.
CHUNG, SANDRA, and WILLIAM A. LADUSAW. 2004. *Restriction and saturation*. Cambridge, MA: MIT Press.
CINQUE, GUGLIELMO. 1990. *Types of A'-dependencies*. Cambridge, MA: MIT Press.
COLE, PETER, and GABRIELLA HERMON. 2008. VP raising in a VOS language. *Syntax* 11.144–97.
COMRIE, BERNARD. 1977. Subject and direct objects in Uralic languages: A functional explanation of case-marking systems. *Études finno-ougriennes* 12.5–17.
DE CAT, CÉCILE. 2007. French dislocation without movement. *Natural Language and Linguistic Theory* 25.485–534.
DE HOOP, HELEN, and BHUVANA NARASIMHAN. 2008. Ergative case marking in Hindi. *Differential subject marking*, ed. by Helen de Hoop and Peter de Swart, 63–78. Dordrecht: Springer.
DIESING, MOLLY. 1992. *Indefinites*. Cambridge, MA: MIT Press.
DIXON, ROBERT M. W. 1988. *A grammar of Boumaa Fijian*. Chicago: University of Chicago Press.
FRANTZ, DONALD. 1990. Null heads and noun incorporation in Southern Tiwa. *Berkeley Linguistics Society (Special session on general topics in American Indian linguistics)* 16.32–38.
GERAGHTY, PAUL A. 1983. *The history of the Fijian languages*. Honolulu: University of Hawaii Press.
GRIMSHAW, JANE B. 1990. *Argument structure*. Cambridge, MA: MIT Press.
HALE, KENNETH. 1983. Warlpiri and the grammar of non-configurational languages. *Natural Language and Linguistic Theory* 1.5–47.
HALLE, MARK, and ALEC MARANTZ. 1993. Distributed morphology and the pieces of inflection. *The view from Building 20: Essays in linguistics in honor of Sylvain Bromberger*, ed. by Kenneth Hale and Samuel Jay Keyser, 111–76. Cambridge, MA: MIT Press.
HAUGEN, JASON D. 2009. Hyponymous objects and late insertion. *Lingua* 119.242–62.
HOPPER, PAUL, and SANDRA A. THOMPSON. 1980. Transitivity in grammar and discourse. *Language* 56.251–99.
IATRIDOU, SABINE. 1995. Clitics and island effects. *University of Pennsylvania Working Papers in Linguistics* 2.11–30.
JELINEK, ELOISE. 1984. Empty categories, case, and configurationality. *Natural Language and Linguistic Theory* 2.39–76.
JELINEK, ELOISE. 1995. Quantification in Straits Salish. In Bach et al., 487–540.
JOHNS, ALANA. 2007. Restricting noun incorporation: Root movement. *Natural Language and Linguistic Theory* 25.535–76.
KIKUSAWA, RITSUKO. 2000a. Historical implications of a syntactically ambiguous structure in Standard Fijian. *Leo Pasifika: Proceedings of the IV International Conference on Oceanic Linguistics*, ed. by Steven Roger Fischer and Wolfgang B. Sperlich, 173–99. Auckland: The Institute of Polynesian Languages and Literatures.
KIKUSAWA, RITSUKO. 2000b. Transitivity and verb forms in Fijian. *Modern approaches to transitivity*, ed. by Ritsuko Kikusawa and Kan Sasaki, 29–51. Tokyo: Institute for the Study of Languages and Cultures of Asia and Africa.
KIKUSAWA, RITSUKO. 2001. Rotuman and Fijian case-marking strategies and their historical development. *Oceanic Linguistics* 40.85–111.

KISSOCK, MADELYN J. 2003. Transitivity and objecthood in Rotuman. *Oceanic Linguistics* 42.144–60.
LARSON, RICHARD. 1988. On the double object construction. *Linguistic Inquiry* 19.335–91.
LEGATE, JULIE A. 2002. *Warlpiri: Theoretical implications*. Cambridge, MA: MIT dissertation.
LESOURD, PHILIP S. 2006. Problems for the pronominal argument hypothesis in Maliseet-Passamaquoddy. *Language* 82.486–514.
MASSAM, DIANE. 2001. Pseudo noun incorporation in Niuean. *Natural Language and Linguistic Theory* 19.153–97.
MASSAM, DIANE. 2010. Deriving inverse order: The issue of arguments. *Austronesian and theoretical linguistics*, ed. by Raphael Mercado, Eric Potsdam, and Lisa Travis, 271–96. Amsterdam: John Benjamins.
MILNER, G. B. 1990 [1956]. *Fijian grammar*. 4th edn. Suva: Government Press.
MITHUN, MARIANNE. 1984. The evolution of noun incorporation. *Language* 60.847–94.
NÆSS, ÅSHILD. 2004. What markedness marks: The markedness problem with direct objects. *Lingua* 114.1186–212.
PAWLEY, ANDREW. 1986. A reanalysis of Fijian transitive constructions. *Te Reo* 29.81–112.
PEARCE, ELIZABETH. 2001. Lexical feature-driven incorporation in two Oceanic languages: Iaai and Fijian. *The Linguistic Review* 18.265–88.
PENSALFINI, ROB. 2004. Towards a typology of configurationality. *Natural Language and Linguistic Theory* 22.359–408.
POLLOCK, JACQUES-YVES. 1989. Verb movement, universal grammar, and the structure of IP. *Linguistic Inquiry* 20.365–424.
POTSDAM, ERIC. 2009. Austronesian verb-initial languages and *wh*-question strategies. *Natural Language and Linguistic Theory* 27.737–71.
RACKOWSKI, ANDREA. 2002. *The structure of Tagalog: Specificity, voice, and the distribution of arguments*. Cambridge, MA: MIT dissertation.
RACKOWSKI, ANDREA, and LISA TRAVIS. 2000. V-initial languages: X or XP movement and adverbial placement. *The syntax of verb-initial languages*, ed. by Andrew Carnie and Etienne Guilfoyle, 117–42. Oxford: Oxford University Press.
ROBERTS, IAN. 2010. *Agreement and head movement: Clitics, incorporation, and defective goals*. Cambridge, MA: MIT Press.
ROSEN, CAROL. 1990. Rethinking Southern Tiwa: The geometry of a triple-agreement language. *Language* 66.669–713.
ROSEN, SARAH T. 1989. Two types of noun incorporation: A lexical analysis. *Language* 65.294–317.
RUNNER, JEFFREY T. 1995. *Noun phrase licensing and interpretation*. Amherst: University of Massachusetts dissertation.
SAPIR, EDWARD. 1921. *Language: An introduction to the study of speech*. New York: Harcourt, Brace & World.
SCHÜTZ, ALBERT. 1985. *The Fijian language*. Honolulu: University of Hawaii Press.
SILVERSTEIN, MICHAEL. 1976. Hierarchy of features and ergativity. *Grammatical categories in Australian languages*, ed. by Robert M. W. Dixon, 112–71. Canberra: Australian Institute of Aboriginal Studies.
SPENCER, ANDREW. 1995. Incorporation in Chukchi. *Language* 71.439–89.
TAMATA, APOLONIA. 2003. The Fijian transitive ending *-(C)aki/a* in loan words. *Journal of Asian and African Studies* 65.207–27.

Department of Linguistics
University of California, Davis
One Shields Avenue
Davis, CA 95616
[raranovich@ucdavis.edu]

[Received 1 June 2010;
revision invited 8 February 2011;
revision received 29 February 2012;
revision invited 23 July 2012;
revision received 7 November 2012;
accepted 1 March 2013]