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The typology of property words in Oceanic languages

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Abstract: This paper describes the morphosyntactic behavior of different semantic types of property words in a balanced sample of 36 Oceanic languages. After a brief general introduction to the functional typology of property words, I first discuss diversity in Oceanic property word classes from a family-internal perspective. In the second part of the paper, Oceanic property words are placed in a world-wide typological perspective. Specifically, I test their behavior with regard to two implicational universals proposed in the literature, concerning the relation between the encoding of predicative property words, the presence of grammatical tense, and locus of marking at the clause level. In typological studies, the Oceanic language family has been claimed to display verbal predicative property words, to lack tense, and to be head- or zero-marking, with marginal exceptions. This paper shows that, even though such an overall profile can be discerned, Oceanic property words exhibit more variation than is acknowledged in crosslinguistic research. Moreover, my findings for property word classes are fitted into a larger picture of lexical categorization in Oceanic languages.

Keywords: Oceanic languages, property words, adjectives, tense, locus of marking

1 Introduction

Property words exhibit a remarkable degree of variation in their morphosyntactic behavior, both within and across languages. This diversity fuels debates on the (non-)universality of adjectives: For instance, Ross ([1998a: 85], referring to earlier work by; Sasse 1993; Dixon 1977) writes that “[w]e cannot even take it for granted that a language has the word classes ‘noun’ and ‘verb’. Much less can we assume that it will have a word class ‘adjective’.” Dixon’s later work (Dixon 2004) and various other scholars’ recent descriptive and comparative studies (Floyd 2011; Chafe 2012; Haspelmath 2012) also show that

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the universal and language-specific aspects of property word classes are still under discussion.

The present paper is part of a larger study of word classes in Oceanic languages and reports an investigation of property words in a balanced sample of 36 languages from this genetic group, which is a fourth-level subgroup of the Austronesian family (see Section 2.2.1 and the Appendix for details).¹ In the literature, general descriptions of the status of Oceanic property words vary: Lynch and colleagues (2002), in their typological sketch of Oceanic languages, write that “[i]f an Oceanic language has a class of genuine adjectives at all, it is likely to be a small, closed set of forms, which is defined by the fact that its members are uninflected and can be used both as a predicate and attributively [...]” (p. 40). However, Ross’s (1998a) study of Oceanic property words already demonstrated that their distributional characteristics are in fact very diverse. At the same time, large-scale typological studies on nonverbal predication rather focus on the homogeneous behavior of Oceanic property words when it comes to their behavior in predicative function, and on the grammatical properties correlated with this behavior, in particular the presence versus absence of grammatical tense marking and locus of marking at the clause level (Wetzer 1996; Stassen 1997; Dixon 2004).

The existing literature thus presents an apparently contradictory account of Oceanic property words: some display their diversity while others emphasize their unity. The aims of this paper are therefore (i) to systematically assess the behavior of Oceanic property words, in modifying and predicating function, in a balanced sample of languages; and (ii) to compare data on their predicative behavior and the associated grammatical features of tense and locus of marking with data from world-wide typological surveys. To reach the second goal, I compare my Oceanic data with various data sets from the World Atlas of Language Structures (WALS) Online (Dryer and Haspelmath 2013), on predicative adjectives (Stassen 2013), past and future tense marking (Dahl and Velupillai 2013a; Dahl and Velupillai 2013b), and locus of (person) marking (Nichols and Bickel 2013; Siewierska 2013).

Before turning to the description and analysis of the data (in Sections 3 and 4), the next section provides the theoretical and methodological background for the study: I summarize the relevant literature (Section 2.1) and give details about language sampling and data collection (Section 2.2). I close the paper with a general discussion about universal and language-specific aspects of Oceanic

¹ The genealogical relation between Austronesian and Oceanic is as follows: Austronesian > Malayo-Polynesian > Central-Eastern Malayo-Polynesian > Eastern Malayo-Polynesian > Oceanic (Lewis et al. 2014).

property words and their relation to other aspects of Oceanic morphosyntactic typology, including lexical categorization (Section 5).

2 Theoretical and methodological preliminaries

2.1 Terminological and theoretical background

As Haspelmath (2012: 122) makes clear, comparing word classes (including property word classes) across languages requires semantically or otherwise functionally defined standards. Therefore, in this study, I generally use the term *property word* (equivalent to Haspelmath's "property root") rather than "adjective", to avoid the suggestion of making claims about language-specific word classes, let alone about universal categories. In the course of this paper, however, I will sometimes adopt terms such as "adjectival", "verbal" and "nominal" from earlier studies. This is done for ease of reference and again without commitment to the existence of specific categories.

As mentioned in the introduction, the distributional characteristics of property words show a remarkable degree of crosslinguistic variation. In functional-cognitive and typological literature this diversity is typically interpreted as the result of a tension between the inherent conceptual relationality of property words and their formal dependency when used in attributive function (e.g., Croft 2001; Beck 2002; Langacker 2008). More specifically, Beck (2002) claims that property words are semantically predicative expressions, like event words (prototypically verbs) and unlike object words (prototypically nouns). However, while verbal predicates syntactically govern the dependents over which they predicate, attributive property words do not: they are themselves dependents of the nominal heads that they modify. As a result of this conflict between the functional relationality and the formal dependency of property words, they may adopt the (language-specific) morphosyntactic characteristics of verbs, nouns, both, or neither. A language can be said to have a dedicated lexical class of adjectives when at least some property words are unmarked or relatively less marked than other word classes when they are used as attributes in modifying function (Croft 2001; later work; Hengeveld 1992; later work). Such lexicalized adjectives may show different kinds of morphosyntactic behavior in predicative function, assimilating to verbal or to nominal predicates.

Moreover, it has been known since Dixon (1977) that certain subtypes of property words are more likely than others to be lexicalized as adjectives, i.e., as

modifiers without special coding, in contrast to other word classes. This holds both between and within languages. Dixon (2004: 3–4) recognizes four core semantic adjective types, namely words denoting dimensions ('big', 'small'), age ('young/new', 'old'), values ('good', 'bad'), and colors. Peripheral semantic types, on the other hand, typically include physical properties, human propensities, and speed words. Examples of physical properties are meanings such as 'hard', 'clean', 'strong', 'wet', as well as so-called corporeal properties like 'well', 'sick', 'tired' and 'dead'. According to Dixon, when physical property words are not lexicalized as adjectives, they typically show the behavioral characteristics of event words in the relevant language. Human propensities include concepts like 'clever' and 'kind', but also 'ashamed' or 'eager'.² When they are not lexicalized as adjectives, Dixon remarks that human propensities may formally assimilate to either event words or object words.

An important functional motivation proposed to underlie such crosslinguistic tendencies in the categorization of property words involves Givón's concept of time stability: property words in general are intermediate in time stability between inherently time-stable object words (or semantic nouns) and inherently time-unstable event words (or semantic verbs). In addition, property words can be ordered amongst each other in terms of their relative degree of time stability: Property words that denote relatively stable properties are more likely to lexicalize as adjectives or to formally side with object words, while less time-stable properties are more likely to behave formally like event words (Givón 2001: 53). Chafe (2012: 6) introduces a further distinction between "properties", which are in the nature of things, and "dispositions", which are incidental qualities independent of the thing itself. While the formal effects of this distinction are similar to those caused by time stability – properties are more likely to be expressed as adjectives or nouns and dispositions will surface more often as verbs – the two dimensions are in principle independent: properties can change (e.g., hot water can cool off) and dispositions can remain unaltered for extended periods of time (e.g., a ladder can, in principle, remain leaning against a tree for years).

In Sections 3 and 4, I will describe how the semantics of property words play out in their behavior as attributes and predicates in Oceanic languages, and how their predicative expression relates to the world-wide typology of property predication and the correlated features of tense and locus of marking in the clause. First, however, Section 2 provides details on my methods of language sampling and data annotation.

² See Section 2.2 for some modifications applied to Dixon's classification in this study.

2.2 Methodology

2.2.1 Language sampling

This study is based on data from a balanced sample of 36 Oceanic languages. The sample was composed by applying the Diversity Value technique (Rijkhoff et al. 1993; Rijkhoff and Bakker 1998; Bakker 2010) to the Oceanic family tree (as represented in *Ethnologue*; see Lewis et al. 2014). This technique involves computing so-called “diversity values” (henceforth DVs) for the nodes in language family trees. These DVs reflect the degrees of internal complexity of subgroups under the nodes and determine by how many languages each particular subgroup should be represented in the sample, given a certain desired sample size. The formula that computes DVs takes into account both the width (how many branches) and the depth (how many more levels further down the tree) of diversification under a specific node in the tree, under the assumption that higher splits represent older stages of diversification and should therefore contribute more to the DV than lower, more recent splits. Isolates are by definition part of any sample.

For the present study, I used as a starting point a desired sample size of 40 Oceanic languages.³ In a first step, I calculated the number of languages to be selected from each of the six main Oceanic subgroups: Admiralty Islands, Central Eastern Oceanic, Saint Matthias, Temotu, Western Oceanic, and Yapese (an isolate in the family). This procedure was repeated for each next level of subgroups, until all 40 languages were distributed. When there was a choice between multiple languages in a given subgroup, availability and quality of descriptions were decisive. Finally, in four cases there was no (good) description for any language in the relevant subgroup, bringing the intended 40 language sample down to the actual number of 36. Full information about the DVs and the composition of the language sample can be found in the Appendix.

2.2.2 Data collection

For each of the 36 sample languages I collected data on seven semantic types of property words, listed in Table 1, with a few illustrative examples for each type.

³ This figure was chosen for practical reasons of time management. Also, 40 out of a total of 513 Oceanic languages (according to *Ethnologue*) means that I have used a relatively dense sample from a relatively small genetic subgroup. This was done with the aim of covering a large proportion of the diversity of property word behavior across the Oceanic family.

Table 1: Semantic types of property words.

Type	Examples
dimension	big, small
value	good, bad
physical properties	hard, cold
human propensities	kind, clever
age	young, old
colors	black, red
experiential states	happy/sad, hungry

Comparing the inventory of classes in Table 1 with Dixon's classes discussed in Section 2.1, some discrepancies can be seen in the peripheral types. Specifically, I treat Dixon's "corporeal properties" (e.g., 'sick', 'tired') as EXPERIENTIAL STATES rather than as a subtype of physical properties. The reason for this is that many items in the class of physical properties refer to relatively time-stable concepts, such as 'strong', 'heavy', and 'soft'. In contrast, Dixon's "corporeal properties" rather include states that tend to be more temporary. Along similar lines, I have assigned some concepts belonging to human propensities in Dixon's list to my class of experiential states. Again, this class typically involves temporal properties, such as 'ashamed', as opposed to more permanent human characteristics, such as 'clever' or 'kind'. Finally, speed words were not analyzed in this study, due to insufficient comparative data.

For each of the seven property word types, in every language, I collected data on their morphosyntactic behavior in modifying and in predicative function. The constructions coded as variables in each function are listed in Table 2. Each of these will be discussed in detail in Section 3.

Table 2: Constructional variables for property words in modifying and predicative function.

	Function	
	Modification	Predication
Construction	Unmarked	Copula
	Possessive indexation	Zero
	Relativization/Nominalization	Verbal
	Other/unclear	Other/unclear

The data annotation brought up some issues, which I will briefly discuss in turn: First, the selected semantic types do not always show internally consistent behavior in individual languages. For instance, in Whitesands the words for ‘big’ and ‘small’, both members of the semantic class of dimension words, belong to different formal word classes.⁴ This is manifested by their behavior in both attributive and predicative function: (1a) and (1b) show that *asoli* ‘big’ can modify without any special coding, whereas *akaku* ‘small’ takes the form of a relative clause, with subject and tense marking. Example (2a) and (2b) show that in predicative function *asoli* carries no inflection, while *akaku* does:

(1) Whitesands (Central-Eastern Oceanic, South Vanuatu)

- a. *n-eterni asoli mən u*
 PL-man big PL PROX
 ‘these big men’
- b. *tem t-akaku*
 person 3SG.NPST-small
 ‘the small(est) person’
 (Hammond 2014: 29, 100)

(2) Whitesands (Central-Eastern Oceanic, South Vanuatu)

- a. *rahak nima asoli*
 my house big
 ‘my house is big.’
- b. *Ya-am-akaku*
 1.EXCL-PST.SG-small
 ‘I was small’
 (Hammond 2009: 41, 61)

In such cases, i.e., when within a semantic class of property words some items show different behavior than others, this was coded as a 0.5 score (instead of 0 or 1). Notably, I did not attempt to quantify the proportions of such subclasses, since descriptions vary too much in their level of detail: often one does not know (exactly) how many items go into each class. Thus, I basically used an ordinal

⁴ In the body of the text I will not provide the genealogical classification of the languages within the Oceanic group; the first- and second-order classification is provided with each linguistic example and for full details of the whole sample I refer to the appendix.

scale of measurement with three levels, which can be roughly described as ‘yes’, ‘no’, and ‘sometimes’.

Second, some lexical items are difficult to locate with respect to the semantic subclasses used in this study. For instance, Kokota has a three-member class of property words (defined by the fact that they that cannot be used predicatively): *mata* ‘wild’, *ohai* ‘tame’, and *tove* ‘old’ (Palmer 2009: 94). While the latter item semantically belongs to the age class, the other two items do not obviously belong anywhere and have been ignored. In one language, Sakao, a subclass was found consisting solely of two such semantically ‘unclassifiable’ items: *pel* ‘other, different’ and *tiβle* ‘plain, ordinary’ (Guy 1974: 58). Note that, while semantically these items fall out of my typology, I have of course formally taken these subclasses into account when typologizing property word categories.

Third, I should briefly discuss the distinction between large (or major) and small (or minor) classes of property words. In most cases of splits, it is obvious which class (out of two or more) is the most substantial one in terms of number of lexical items. For example, Kokota has, in addition to the three-item class mentioned above, another eight-member class (see Section 3.2), as well as a large property word class containing ‘everything else’. However, for a few languages such a default class is less easy to discern. In Mato, for instance, words for dimensions, values, age and at least some human propensities are formally distinguishable from color terms and words for physical properties (Stober 2013). However, it is not clear which of these two classes is larger in terms of type frequency, i.e., the number of lexical members. In such cases, I have regarded the class containing items on the peripheral side of the semantic spectrum as the default class (so for Mato, the class containing color terms and physical properties). While this choice may perhaps seem counterintuitive (because the ‘core’ categories are more prototypical semantically), it is motivated by the fact that in most clear-cut cases, the small classes are those containing items belonging to the core categories: dimension, value, and age words (see Section 3.3).

Finally, it is interesting to see that in some languages certain property concepts are lexicalized twice, with each lexical item pertaining to a distinct formal class. An example comes from Tinrin, in which the meanings ‘(be.)old’, ‘(be.)small’ and ‘(be.)big’ are conveyed either by a word used for modification only or by a word used for predication only: an adjective *nrôô* ‘old’ or a verb *bêêrî* ‘be.old’; an adjective *hûwû* ‘small’ or a verb *mùrrû* ‘be.small’; an adjective *drorro* ‘big, important’ or a verb *ti* ‘be/become.big’ (Osumi 1995: 77, 78). This phenomenon appears to occur typically with concepts belonging to Dixon’s core adjective types.

3 Diversity in property word classes in and across Oceanic languages

3.1 Introduction

My approach to describing the behavior of Oceanic property words is similar to Ross's (1998a), even though I use a different terminology.⁵ Also, I add a quantificational aspect to the typology: Since my sample is balanced for the various genetic subgroups within Oceanic, it is possible to make certain claims about the distribution of specific patterns across the family. From the outset, I should emphasize that the majority of sample languages, namely 21 out of 36, have more than one formal class of property words. In most of these languages two classes can be distinguished (based on the criteria used in this study), but some have three. Note that these subclassifications may be based on differential behavior in modifying function, in predicative function, or in both (see Section 3.4). Also, bear in mind that language-specific formal subclasses may cross-cut the semantic subclasses distinguished in Table 1 (cf. Section 2.2.2).

In the following subsections, I first discuss the distribution of property expression strategies in modifying function (3.2) and in predicative function (3.3), as well as the relation between the two. In Section 3.4 I consider some semantic patterns behind property word categorization in Oceanic languages.

3.2 Coding of property words in modifying function

I first look at property words in modifying function. Even though this function is often thought of as the basic, prototypical function of property words, there are certainly indications that predication is in fact (much) more common: According to Ross's (1998a: 87) study of Oceanic property words "only about a quarter of adjective [i.e., property word, EvL] occurrences are modifiers". Similarly, Thompson (1988: 173–180) finds for English that 79% of property word usages

⁵ Ross's terminology involves terms like "adjectival", "verbal", and "nominal", and combinations and modifications of these (e.g., "lax adjectival-noun"). This is problematic to the extent that these terms (unintentionally) suggest the existence of specific lexical classes in the relevant languages. Since the distributional analysis is not complete, however, assuming such classes is not always warranted.

are predicative.⁶ Nevertheless, 21 Oceanic languages in my sample (58.3%) have a substantial class of property words that function as modifiers without any form of morphosyntactic marking, and 32 languages (89%) have at least a small subclass of property words that can do this.⁷ The unmarked strategy is the first possible pattern in modifying function (cf. Table 2 above) and it is illustrated for Pohnpeian and North-East Ambae in Examples (3) and (4), respectively. In both these languages, the unmarked modifying strategy is the only available option for property words.⁸

- (3) Pohnpeian (Central-Eastern Oceanic, Remote)

ohl loakekeng
man intelligent
'intelligent man'
(Rehg 1981: 160)

- (4) North-East Ambae (Central-Eastern Oceanic, Remote)

tubui sesea
woman old
'(the) old woman'
(Hyslop 2001: 124)

The second possibility is the use of possessive suffixation on the modifying property word. The possessive index agrees with the entity that the property applies to.⁹ In the languages of my sample, this strategy is typically used only with subclasses of property words. For instance, Palmer (2009: 97) lists eight

6 These figures refer to actual text counts. Ross does not give methodological details about his corpus research beyond stating that they are his “own [...] searches” in “narrative texts”. Thompson states that she “looked at more than 100 pages of transcribed natural spontaneous conversational discourse with 308 property concept words”. Furthermore, she defines “predicative” as including both constructions of the type ‘It’s religious’ and of the type ‘It’s a religious thing’, i.e., where the property word functions as an attribute to a semantically non-informative noun. In both studies, predicative usage was measured independently of the actual coding construction used.

7 The four languages that do not have any property words that can modify without marking (including possessive agreement) are Engdewu, Lote, Yapese, and Tawala.

8 Note that the unmarked use of property words as modifiers does not necessarily set them apart as a separate word class (of adjectives) in a particular language: Especially in languages with a large degree of lexical flexibility (e.g., Mekeo, Rotuman, and Marquesan among my sample languages) words denoting events and/or objects/individuals may show the same distribution in this function.

9 In most cases, number agreement is semantics-based, since few Oceanic languages have grammatical number marking on the lexical heads of referential phrases.

items in Kokota that do this, including *foforu* ‘new’ (other property words can modify without any formal adaptation), as shown in (5):

- (5) Kokota (Western Oceanic, Meso-Melanesian)

palu suḡa foforu=di
 two house new=**3PL.POSS**
 ‘two new houses’
 (Palmer 2009: 99)

In some cases, the possessive suffixation applies in combination with derivational marking in the form of reduplication or nominalization, as in (6) from Lote:

- (6) Lote (Western Oceanic, North New Guinea)

non husu-nga-na
 man white-NMLZ-**3SG.POSS**
 ‘the white man.’
 (Pearson and van den Berg 2008: 34)

In general, possessive indexation is not very common in my sample. Apart from Lote, there are three languages that use it in combination with derivation for a subset of property words. An example from Saliba appears in Example (7a); the second Example (7b) shows that some items take possessive indexation without reduplication:

- (7) Saliba (Western Oceanic, Papuan Tip)

- a. *lulu posi~posi-di*
 shirt **RD**~white-**3PL.POSS**
 ‘white shirts’
 (Margetts 1999: 21)
- b. *mwaedo gagili-di*
 eel small-**3PL.POSS**
 ‘small eels’
 (Mosel 1994: 7)

In addition, five languages display possessive indexation with a subset of property words, either optionally (Mekeo and Wuvulu) or obligatorily (Tawala, Kokota, and Manam).¹⁰

¹⁰ Possibly, however, the number of languages with possessive indexation is somewhat larger. This is due to the fact that it in some languages (Loniu, Mussau, and Mato) possessive forms are

Note that, although possessive person/number suffixation seems to be the most common form of property word agreement, in some Oceanic languages some property words show another form of agreement. For instance, Churchward (1940: 39) lists a dozen items in Rotuman that have special reduplicated forms to agree with plural modified referents. The relevant items belong mostly to three of Dixon's core categories: dimension, age, and color. Other languages show the same phenomenon, but with fewer items: Sakao has three (the words for 'big', 'small' and 'black'), and Barok has two (the words for 'big/old' and 'small/young') (Guy 1974: 53; Du 2010: 96). An example from Barok is provided in (8):

- (8) Barok (Western Oceanic, Meso-Melanesian)
a bung bo lixi-lik
 CNM PL pig PL~small
 'small pigs'
 (Du 2010: 96)

In Kilivila, the agreement *feature* is distinct: a subclass of property words (as well as demonstratives and numerals) agrees with the head of the referential phrase in noun class, as in (9):

- (9) Kilivila (Western Oceanic, Papuan Tip)
mi-na-si-na na-yu na-manabweta vivila
 DEM-CL-PL-DEM CL-two CL-beautiful girls
 'these two beautiful girls'
 (Senft 1986: 69)

Finally, the third possible modification strategy is one in which the property word functions either as the head of a relative clause or as an action nominalization (cf. Table 2). I consider these constructions as two versions of one strategy, because they both imply that the property words have the same distribution as prototypical (intransitive) event words, or in more traditional terms that they are verbs. Relative clauses and nominalizations can be seen as the balanced and deranked version, respectively, of the same coding strategy.¹¹ The relativization strategy is used in Engdewu, where it is the only option:

found but appear to be fossilized: In such cases a subset of property words end in *-(i)n(e/a)*, i.e., the third person singular possessive form, but the inflection is not productive.

¹¹ Both are dependent clause constructions. The terms "balanced" (i.e., formally main-clause-like) and "deranked" (i.e., somehow formally distinct from main clauses) were coined by

- (10) Engdewu (Temotu)
trak kã u-tapwã
 truck REL PFV.N3AUG.S/A-small
 ‘a small truck’
 (Vaa 2013: 133)

Note that in Engdewu relative clauses can also be unmarked, in the sense that they do not take a relativizer, as shown in (11):

- (11) Engdewu (Temotu)
nyö tim kãã i-bo
 CFL team DIST.SG PFV.N3AUG.SBJ-blue
 ‘the blue team’
 (Vaa 2013: 272)

In some Oceanic languages, relative clauses always lack a relativizer and are recognizable only because they take the grammatical categories associated with prototypical event predication (or ‘verbal inflection’ in more traditional terms). This is the case for instance in Wuvulu:

- (12) Wuvulu (Admiralty Islands, Western)
hemea rama’a i-na-pududu
 ART person 3SG-REAL-stupid
 ‘a stupid person’
 (Hafford 1999: 111, 153)

The relativization/nominalization strategy is quite common in my sample: it occurs in 11 languages with the main or only class of property words, and in another four languages with a smaller subclass. As such, this strategy is more frequent than the possessive agreement strategy, but considerably less widespread than the unmarked modification strategy.

My findings for the distribution of expression strategies used by modifying Oceanic property words are summarized in Table 3. The cases in the row labelled ‘other’ are those with different agreement patterns (exemplified in (8) and (9) above) and one case of reduplication without agreement (“class I adjectives” in Manam; see Lichtenberk 1983: 315–316).

Stassen (1985) and adopted in various crosslinguistic studies of dependent clauses, most significantly Cristofaro’s (2001).

Table 3: Distribution of modification strategies over property words classes in 36 Oceanic languages.

Expression strategy	Main or only class of property words	Second (small) class of property words	Third (small) class of property words
No marking	21	15	2
Possessive indexation (incl. optional and in combination with RDP)	3	3	1
Relativization/NMLZ	11	1	3
Other	1	2	1
Total	36	21	7

3.3 Coding of property words in predicative function

This section describes morphosyntactic patterns attested with predicative Oceanic property words. Notably, Wetzer's (1996) and Stassen's (1997) large typological studies on nonverbal predication (mentioned in Section 2.1 and to be further addressed in Section 4) make a general distinction between “nouny” and “verby” behavior of predicative property words. “Nouny” or nonverbal behavior involves either a copula construction or a “zero” construction. The latter means that there is no copula but also no expression of features such as person/number and TMA marking. I will call such features ‘verbal’ for ease of reference, but without making claims about the status of a lexical class of verbs in the relevant language. Rather, by ‘verbal’ features, I mean: features associated with prototypical event words used in predicative function. “Verby” or verbal behavior of predicative property words, then, involves the expression of verbal features.¹² Finally, there is a third category of “mixed” languages. These come in two types: either property words can alternate between verbal and nonverbal encoding or the set of property words is split into a subset with verbal encoding and a subset with nonverbal encoding. Both types of mixing are frequently found in Oceanic languages, sometimes within the same language. Kove, for instance, has a large class of property words that can occur either in a verbal or in a nonverbal predicative construction (see Example (14) below), and a small class of four items (*paka* ‘big’, *kahaku* ‘small’, *volovolo* ‘short’, *doko* ‘good’) that only allow the nonverbal construction (Sato 2013: 95).

¹² Notably, according to Wetzer (1996: 182) a zero strategy can also count as “verby”, but only when event words lack any distinct verbal features and when, in the same language, object words (or semantic “nouns”) select the copula construction.

While in Section 4 I follow, for the sake of comparability, the binary verbal/nonverbal typology of Wetzer (1996) and Stassen (1997, 2013), in the current descriptive section I distinguish between a larger number of constructions and alternations displayed by Oceanic predicative property words. I also distinguish between subclasses, rather than calling the relevant systems “mixed” without further differentiation.

First, consider the copula construction, which is rather marginally used with property words in my sample: It occurs with only four property word classes spread over three languages, always in alternation with a zero strategy, and typically with a subclass of property words. In Erromangan, illustrated in (13), the copula construction is used with dimension, age, and most value words, a number of physical property words and at least one color term. As the examples show, the copula appears only in those contexts where “any kind of irrealis interpretation” is required (13a); in realis contexts a zero strategy is used (13b) (Crowley 1998: 212):

(13) Erromangan (Central-Eastern Oceanic, South Vanuatu)

a. *c-ante* *armai*

3SG.SBJ.FUT-COP good

‘It will be good.’

b. *kik* *armai*

2SG good

‘You are good.’

(Crowley 1998: 212, 165)

Nine languages employ the zero strategy without alternation. Five of these use it only with a subset of property words; only Loniu, Hote, and Labu use it with all items.

Another possibility is an alternation between the zero strategy and a verbal construction. This is again not a very common pattern: it appears to be used with all property words in Barok and Mussau, and in another four languages with a subset. In Kove, this subset constitutes the main class of property words. The examples in (14) show the use of *raerae* ‘long’ in the zero construction (a) and the verbal construction (b). The translations make clear that the former has a stative ascriptive meaning, while the latter is interpreted as a dynamic process. A similar semantic contrast is attested in other languages displaying this alternation.

(14) Kove (Western Oceanic, North New Guinea)

a. *vuivui raerae tau*

grass long very.much

‘the grass is very long.’

- b. *vuivui tu-duwara i-raerae*
 grass ART-DEM 3SG.SBJ-long
 ‘That grass became long.’
 (Sato 2013: 315, 95)

Given that the predicative constructions discussed so far are all not particularly common in my sample, it follows that the remaining strategy, the nonalternating verbal construction, is by far the most widespread: In 26 languages (72%) it is used with the major property word class (15 languages) or with all property words (11 languages). More generally, 32 languages (89%) have the possibility to express verbal features on at least some property words under some circumstances (this includes languages with the zero/verbal alternation strategy).

Finally, there are four languages (Kokota, Lengo, Sakao, and Tinrin) that have a (very) small, closed class of property words that cannot be used in predicative function at all. Interestingly, the relevant lexical meanings do not show clear semantic overlap across languages. While within languages these nonpredicative items can be semantically related (e.g., color terms in Lengo), they may also be spread over several semantic subclasses, as in Tinrin, where just a few items denoting dimension, value, and age belong to the nonpredicative class. In general, though, it seems to be the case that nonpredicative property words can always be semantically classified as belonging to Dixon’s core categories.

Table 4 summarizes my findings on the distribution of expression strategies over predicatively used Oceanic property words.

Table 4: Distribution of expression strategies over predicatively used property word classes in 36 Oceanic languages.

Expression strategy	Main or only class of property words	Second (small) class of property words	Third (small) class of property words
Copula/zero	0	3	3
Zero	4	4	2
Zero/verbal ^a	6	2	1
Verbal	26	9	3
Nonpredicative	0	3	1
Total	36	21	7

^aIn fact, in one Mato there is an alternation between a copula and a verbal strategy. I have counted this as a zero/verbal case, as it also involves a mix between a nonverbal and verbal strategy.

Having identified the distribution of expression strategies for Oceanic property words in modifying and predicative function, it is possible to make some observations about the relation between the two. Specifically, when a class of property words must be relativized or nominalized in modifier function, this implies that these items can only be verbal in predicative function. However, the predicative coding strategy selected by property words that modify without marking cannot be predicted: it can be any of the five options distinguished in this study (including nonpredicative). Thus, unmarked modifiers are neutral towards verbal or nonverbal behavior in predicative function. Finally, property words that show possessive agreement in modifier function typically have verbal encoding in predicative function, even though in some cases (Mekeo, Tawala, Manam) a zero strategy (with retention of the possessive marking) can be used. This indicates, in combination with the fact that some languages combine possessive marking with a derivational device, that possessive marking is usually a sign of nominalization, even though the derivation is not always overtly morphologically expressed.¹³

In the next subsection, I will briefly explore some semantic patterns behind Oceanic property word categorization, in particular regarding the behavior of small, closed classes of property words in relation to larger, open classes.

3.4 Relation between coding strategies and subclasses of property words

As Ross (1998a: 313–315) also notices, the small, closed classes of property words in Oceanic languages often contain certain recurring semantic items, clearly belonging to Dixon's core adjective types: dimension, value, age, and color. Although not all of my sources provide (exhaustive) lists of members for such restricted classes, some do and this allows for an impression of the most commonly attested concepts. For those items that are listed more than once as a member of a small, closed class, a top 10 is represented in Table 5.

In addition, there are a few languages where the small class actually occupies the opposite end of the semantic spectrum. In these languages, some items belonging to the most “peripheral” adjective types (human propensities and especially experiential states) form a morphosyntactically distinct, restricted class. The coding pattern of such classes is always verbal, that is, they must be

¹³ cf. Ross (1998b), who claims that underived property words with possessive marking (his Type 4, see p. 242) are the most commonly attested type of possessive-like attributive construction in Oceanic languages.

Table 5: Commonly occurring items in small property word classes in Oceanic languages.

Item	Number of attestations
'big'/'huge'	9
'small'	8
'good'	7
'old/ripe'	4
'new/young'	4
'red'	3
'short'	3
'black'	2
'white'	2
'yellow'	2

relativized in modifying function and they express verbal features in predicative function. This behavior is in line with Dixon's observation that experiential states (his "corporeal properties", cf. Section 2.1) typically pattern with event words and that human propensities may line up either with event words or with object words.

The formal properties of small "core adjective" classes differ per language. Also, they contrast in various ways with the major class of property words in the relevant languages: sometimes their behavior is distinct only in modifying function, sometimes only in predicative function, and sometimes in both. In general, however, we can say that "core adjectives" are less marked in modifier function and less 'verbal' in predicative function than the class of property words that they contrast with.

Table 6 shows the cases where the behavior of the small property word class is distinct from the behavior of the major class only in modifier function. In the first four rows, we see that the small class has no or only optional marking, while the major class does have marking in the form of relativization or possessive marking. The final two rows, however, show cases where the small class has possessive or (optional) class agreement marking, while the major class has no marking. In these cases, it seems that the subclass showing agreement is perceived as semantically more noun-like, perhaps because these items express properties typically associated with people, such as sex ('male'/'female') or age.

Table 7 shows the cases in which the behavior of the small property word class is distinct from the behavior of the major class in the predicative function only. While the major classes typically have the possibility to express verbal features (either as the only coding option or as one of the two options in a

Table 6: Contrasts in modifying strategy between major versus small Oceanic property word classes.

Distinct behavior in modifying function only					
Major class		Small class		N cases	Languages
Predicative strategy	Modifier strategy	Predicative strategy	Modifier strategy		
Verbal	relativization	verbal	no marking	4	Drehu, Nêlêmwa, Neverver, Tamambo ^a
Verbal zero/verbal	RDP + POSS (optional)	verbal zero/verbal	no marking	1	Kaliba
	POSS marking			1	Mekeo
Verbal	relativization	verbal	optional POSS agreement	1	Wuvulu
Verbal	no marking	verbal	POSS agreement	1	Kokota ^b
Verbal	no marking	verbal	(optional) class agreement	1	Kilivila

^aTamambo is a somewhat deviant case in several respects: First, the class of property words that modifies without marking actually appears to be the larger class; property words that cannot modify without marking include (some) human propensities and experiential states. Moreover, Jauncy states that items in the latter class are always used as “verbal predicates” (2011: 281–282). I have interpreted this as including the predicate of a relative clause, but the available examples involve predicates of main clauses only. Finally, while the table indicates that all types of property words show verbal behavior in predicative function, there is a restriction on color terms in Tamambo: these items do take subject marking, but no TAM.

^bKokota appears both in Table 6 and in Table 7, because it has – besides its major class of property words that shows verbal behavior in predicative function and no marking in modifier function – two small classes of property words: the one represented here and another non-predicative one represented in Table 7, first row.

Table 7: Contrasts in predicative strategy between major versus small Oceanic property word classes.

Distinct behavior in predicative function only					
Major class		Small class		N cases	Languages
Predicative strategy	Modifier strategy	Predicative strategy	Modifier strategy		
verbal	no marking	nonpredicative	no marking	3	Lengo, Sakao, Kokota
zero/verbal	no marking	zero	no marking	2	Mussau, Kove
zero	no marking	copula/zero	no marking	1	Bukawa
copula/verbal	no marking	copula/zero	no marking	1	Mato

construction alternation), the small classes lack this option. In one case (in the penultimate row), the contrast rather consists in the small class sometimes employing a copula, while the major class never does this.

Finally, Table 8 shows the cases where the behavior of the small property word class is distinct from the behavior of the major class in both modifying and predicative function. Here we observe a combination of the markedness generalizations discussed above: in modifier function the small class requires less marking than the larger class, and in predicative function the small class shows less (in fact no) verbal behavior compared to the major class.

Table 8: Contrasts in predicative and modifying strategies between major versus small Oceanic property word classes.

Distinct behavior in both predicative and modifying function				N cases	Language
Major class		Small class			
Predicative strategy	Modifier strategy	Predicative strategy	Modifier strategy		
verbal	relativization	nonpredicative	no marking	1	Tinrin
verbal	relativization	zero	no marking	2	Mangap Mbula, ^a Whitesands
verbal	relativization	zero	NMLZ + POSS	1	Mangap Mbula
verbal	NMLZ	copula/zero	no marking	1	Erromangan
verbal	RDP + POSS	zero	POSS	1	Tawala

^aMangap Mbula appears twice in this table, as it has three distinct classes of property words. I have analyzed the class showing verbal behavior in predicative function and relativization in modifier function as the major class (including at least colors, physical properties, and experiential states) and the two remaining classes (including dimension, value, and age) as minor (cf. Bugenhagen 1995: 106-107).

In general, we can conclude that small classes of property words in Oceanic languages tend to include semantic items belonging to Dixon's core categories, which is formally reflected in their relatively reduced markedness in modifier function and/or in their reduced possibilities for verbal encoding in predicative function, compared to the major class of property words in the same language.¹⁴ This exploration of the relation between semantic types of property words and their coding properties rounds off Section 3. In the next section I will compare the predicative behavior of Oceanic property words to world-wide patterns and

¹⁴ This is in line with Ross' (1998a) reconstruction of Proto-Oceanic as having two classes of property words: a large class of verb-like items and a small class of somewhat noun-like items.

discuss implicational relations between this behavior and other grammatical features, in particular tense and locus of marking.

4 Oceanic predicative property words in comparative typological perspective

4.1 Predicative property words and tense marking

4.1.1 Introduction

Based on two large-scale typological studies, both Wetzer (1996) and Stassen (1997) propose the following bidirectional implicational universal:

Languages without tense have verbal adjectival predication,
Languages with tense have nonverbal adjectival predication.

Notably, “adjectival” is used here as the equivalent of “property word”, i.e., without making claims about the existence of a separate formal class of adjectives, either as a language-specific or as a universal category. Importantly, Wetzer and Stassen define tense (the actual term used is “tensed(ness)”) in a rather narrow manner: In order for a language to qualify as “tensed”, it must display (i) a grammatical, obligatory category of tense, which (ii) minimally involves a past/non-past distinction, and which is (iii) morphologically marked bound to the main predicate. While the first of these three components of tensedness is relatively straightforward (but see the discussion in Wetzer 1996: 276–280), the second and third are less obvious. Especially, as Wetzer himself acknowledges, the morphological boundedness criterion “may give rise to disagreement and confusion” (Wetzer 1996: 279). To illustrate this, he quotes Comrie (1976: 9), who remarks that it is not clear exactly where the boundary lies between a morphologically expressed verbal category and a periphrastic category that expresses the same meaning (and may be equally obligatory).¹⁵ Furthermore, criterion (ii) essentially excludes future (vs. non-future) tense. The reason for this is that future tense is often difficult to separate conceptually from modal notions like non-factivity. While I will return to these problematic

¹⁵ Below I discuss some problems with the morphological boundedness criterion arising specifically for Oceanic languages.

aspects of “tensedness” below, at present I adopt the definition as it stands for reasons of comparability.

The functional motivation behind the relation between tensedness and adjectival predication is formulated by Wetzer as follows:

In order to account for the determinant role of tensedness, it is claimed that prototypical adjectivals display a strong tendency to avoid morphological tense marking, due to the principle of iconic motivation; the low degree of semantic relevance which obtains between prototypical adjectivals and tense markers obstructs the occurrence of morphological fusion.

Since prototypical adjectivals will not participate in the verbal system of obligatory bound tense marking, tensed languages will preferably [...] opt for a nonverbal [...] strategy for the encoding of adjectival predicates. (Wetzer 1996: 295)

The low degree of semantic relevance that Wetzer refers to is presumably due to the relatively high time stability of prototypical property words: as was already discussed in Section 2.1, they tend to denote mostly durable characteristics of objects and individuals (Givón 2001: 53).

When discussing genetic and areal patterns with respect to the universal relation between tensedness and predicative adjectives, Stassen (1997: 427–429) claims the following for Austronesian languages, and – by implication – for Oceanic languages as a subgroup of that family:

With only marginal exceptions, Austronesian languages can be shown to have verby encoding for predicative adjectives. [...] The almost uniform verby nature of adjectival predicate encoding in Austronesian languages is matched by the non-tensed character of their verbal systems. (Stassen 1997: 429)

The previous section (cf. Table 4) already made clear that verbal encoding of predicative property words is indeed very common in Oceanic languages, but other patterns certainly also occur. Therefore, in the next subsection I will evaluate the validity of the bidirectional implicational universal proposed by Wetzer and Stassen for my sample of Oceanic languages. In order to allow a systematic comparison between the Oceanic data and the world-wide situation, I will subsequently report the result of a parallel analysis on a data set from WALS.

4.1.2 Results from Oceanic and WALS data

I tested Wetzer and Stassen’s bidirectional universal on the relation between tensedness (adopting their definition) and predicative adjective encoding on the Oceanic languages in my sample. As was mentioned in Section 3.3, Stassen

distinguished three values for the encoding of predicative adjectives: verbal encoding, nonverbal encoding, and mixed encoding. The relevant distribution is represented in Table 9 and visualized in Figure 1. A χ^2 test does not yield a statistically significant correlation.

Table 9: Distribution of Oceanic languages according to values for Predicative Adjectives and Past tense.

Predicative adjectives	Past tense		Total
	No	Yes	
Mixed	10	3	13
Nonverbal encoding	3	1	4
Verbal encoding	19	0	19
Total	32	4	36

Figure 1: Relationship between predicative adjectives and past tense in Oceanic languages.

Despite the lack of a significant correlation, the majority of Oceanic languages in my sample (19 = 52.8%) clearly are in line with Stassen's generalization (cf. the quotation in Section 4.1.1 above): they have verbal encoding of predicative property words and no grammatical past tense marking. Moreover, there are no languages that combine the presence of a past tense category with verbal encoding of predicative adjectives. Yet, four languages have exclusively nonverbal encoding of predicative property words. One of these (Labu) confirms the hypothesis in that it has a past tense category, but the other three (Loniu, Bukawa, and Hote) are counterexamples: they have no past tense.

Furthermore, as anticipated, many Oceanic languages have mixed encoding of predicative property words: 13 or 36.1%. Recall that there are two types of mixing patterns: either there is a split in the class of property words, or a whole class of property words can alternate between verbal and nonverbal encoding (or a combination of both). In order to enhance the testability of the hypothesis, it is possible to distinguish between these two types of mixing. Below, I recoded the Oceanic data in such a way that only those languages are counted as mixed in which *all* property words allow verbal and nonverbal encoding. In cases of splits, I have counted only the encoding of the major class of property words (either verbal or nonverbal). This yields the frequency distribution displayed in Table 10:

Table 10: Distribution of Oceanic languages according to values for Predicative Adjectives and Past tense, with reduced mixed languages (only those with verbal/nonverbal coding for all property words).

Predicative adjectives	Past tense		Total
	No	Yes	
Mixed	5	0	5
Nonverbal encoding	4	1	5
Verbal encoding	23	3	26
Total	32	4	36

While the primacy of languages without tense and with verbal encoding is now even more pronounced (63.9%), there are also a number of new counterexamples: three languages with past tense marking have a major class of property words with verbal encoding. For instance in Whitesands (exemplified in (1) and (2) above), only a small set of property words shows nonverbal encoding like *asoli* 'big', but most items are verbal like *akaku* 'small'.

Finally, it can be observed that, due to the narrow definition of past tense employed here, there are some languages that are coded as lacking past tense mainly because the relevant marker is not morphologically bound to the main predicate (cf. the criteria in Section 4.1.1 above). Barok, for example, has a past tense marker =*xo* which is cliticized to the obligatory preverbal subject marker, as shown in Example (15)¹⁶:

(15) Barok (Western Oceanic, Meso-Melanesian)

duu to=xo xisixis
 3DU 3NSG.S=PST live
 ‘They lived....’
 (Du 2010: 210)

Example (16a) shows that property words in Barok combine with =*xo* (as well as with the preverbal subject markers) in predicative constructions with process semantics. In order to be stative ascriptive predicates, property words must function as unmarked modifiers within a predicative noun phrase, headed by the dummy noun *lak* ‘one, thing’. This is shown in (16b):

(16) Barok (Western Oceanic, Meso-Melanesian)

a. *ai-ne i=xo pidien*
 skin-3SG.POSS 3SG.S=PST white
 ‘His skin became white.’

b. [*a ai-ne*] [*a lak pidien*]
 CNM skin-3SG.POSS CNM DUMMY white
 ‘His skin is white.’ (lit. ‘His skin is a white one.’)
 (Du 2010: 91)

The Barok case shows that a narrow formal definition of past tense marking leads to the exclusion of obligatory, semantically quite straightforward past tense markers. It also shows that semantic irrelevance (see the quotation from Wetzter in 4.1.1) of (past) tense for property words is not necessarily directly linked to the meaning of the lexical item. Whether or not a prototypical property word such as *pidien* ‘white’ is semantically compatible with tense marking also depends on the meaning of the wider construction (stative or dynamic).

16 The =*xo* marker is actually described as a remote past tense marker because it must be used to describe events that happened two days or more before the moment of speech (Du 2010: 210). However, there is no other kind of past tense and the marker is simply glossed as “PAST”.

In order to compare the Oceanic data for tensedness and predicative adjectives with the world-wide situation, I used the data belonging to two maps/chapters from WALs: number 118A on predicative adjectives (Stassen 2013) and number 66A on past tense marking (Dahl and Velupillai 2013a). Notably, it is not entirely clear to what extent Dahl and Velupillai's definition of past tense adheres to a morphological boundedness criterion, like Wetzer and Stassen's tensedness definition does. Therefore, it is possible that more languages are counted by Dahl and Velupillai as having past tense than would have been counted by Wetzer and Stassen as being tensed. Note also that Dahl and Velupillai distinguish between three subtypes of languages with past tense: those without remoteness distinctions, those with two or three remoteness distinctions, and those with four or more remoteness distinctions. I consider these as one type ('having past tense') contrasting with one other type ('having no past tense'). The language samples used in the chapters on predicative adjectives and past tense were merged; the number of overlapping languages is 127.

Table 11 shows the distribution of languages over the six possible combinations of values for the features of tense and predicative adjectives (for the latter variable, Stassen distinguishes three values; the ones also used for the Oceanic typology in Table 9). While it is clear that the majority of cases (35 and 47) follows the predicted pattern, there are also exceptions in both directions (4 and 12 cases). In addition, there are 29 languages with mixed predicative adjective coding, which neither support nor falsify the hypothesis. Performing a χ^2 test on this distribution yields a highly significant result ($p < 0.001$).¹⁷ This result is visualized in Figure 2.

In sum, the WALs data and the Oceanic data show that verbal encoding of predicative adjectives is indeed rare in languages with grammatical past tense

Table 11: Distribution of languages according to values predicative adjectives and past tense in WALs.

Predicative adjectives	Past tense		Total
	No	Yes	
Mixed	9	20	29
Nonverbal encoding	4	47	51
Verbal encoding	35	12	47
Total	48	79	127

¹⁷ I am grateful to Matthew Dryer for emphasizing that the WALs samples, although highly diverse, are not fully genetically and areally balanced and as such do not provide a solid basis for statistical testing.

Figure 2: Relationship between predicative adjectives and past tense in WALS.

marking, even though the latter does not completely exclude the former. This supports Wetzer's claim that property words avoid participation in the verbal system of "tensed" languages (see the quotation from Wetzer in 4.1.1). Also, the absence of grammatical tense allows for verbal encoding, but the former does not enforce the latter: nonverbal encoding also occurs in languages without past tense. While the Oceanic data confirm a general pattern of verbal encoding and absence of past tense, they also show that mixed patterns are very common and that Oceanic languages are not categorically tense-less. This means that the account that existing typological literature gives of this language family is too general and ignores non-marginal variation.

Recall from Section 4.1.1 that another aspect of Wetzer's and Stassen's narrow definition of tensedness involves the exclusion of future tenses. Since future tenses (defined as in WALS – see below) are three times more common in my sample than past tenses, it is interesting to see to what extent the presence of

future tense correlates with nonverbal property word predication (and vice versa: no future tense with verbal predicative adjectives), in Oceanic languages as well as in a worldwide sample. The next section briefly explores this matter.

4.1.3 Future tense marking

The status of future as a ‘pure’ tense category has been questioned by many linguists (e.g., Lyons 1968: 306–311). The reason for this, as Wetzler (1996) also remarks, is that language-specific “future” categories tend to come with modal overtones of nonfactuality or *irrealis*. On the other hand, the crosslinguistic validity of a category of reality status (of which *irrealis* is one possible value) is seriously challenged (Bybee et al. 1994: 240) and has in fact recently been denied by De Haan (2012). The latter concludes that there is no link between the notional category of reality status and its linguistic reflection: the functions of language-specific (ir)realis categories vary so much that no common semantic core can be defined.

In their WALS chapter 67, Dahl and Velupillai’s (2013b) take the following way out of this problem: they assume that it is not possible to classify language-particular categories unequivocally as tense or mood (or aspect, for that matter) and therefore choose to include *irrealis* categories as future tenses, “if they are expressed inflectionally and cover the same range of uses as other future tenses”. Note their addition of a criterion of morphological expression: the WALS map exclusively shows inflectional futures, because these tend to be obligatory.

Oceanic languages often have an obligatory grammatical (ir)realis category, expressed in the form of portmanteau prefixes that also index the person and number of the subject. In many (but not all) cases, the *irrealis* forms are used to express future time reference, typically alongside one or more other functions crosslinguistically found under the *irrealis* label, such as conditional (Wuvulu), habitual (Kokota), counterfactual (Bukawa), imperative (Neverver), hortative (Barok), apprehension (Lote), and general nonfactuality (Engdewu).

Looking first to the relation between future tense and predicative adjectives in the Oceanic sample, we find the distribution represented in Table 12. Interestingly, in contrast to the past tense data for Oceanic languages (cf. Table 9 and Figure 1 above), the correlation between future tense and predicative adjectives is statistically significant ($p = 0.0045$).

Considering this distribution, bear in mind that the above-discussed WALS definition of future tense – just like the formal definition of past tense – leads to the exclusion of certain Oceanic markers, which would semantically classify as future markers, but are not inflectional affixes to the verbal stem. This holds for instance for the Tamambo =*mbo* marker (glossed as ‘future’, but with

Table 12: Distribution of Oceanic languages according to values for predicative adjectives and future tense.

Predicative adjectives	Inflectional future tense		Total
	No	Yes	
Mixed	8	5	13
Nonverbal encoding	0	4	4
Verbal encoding	16	3	19
Total	24	12	36

hypothetical and hortative uses, see Jauncey 2011: 307): it cliticizes to the obligatory preverbal particle indexing person and number of the subject as well as mood and is as such formally identical to the Barok past tense marker (see Example (15) above):

- (17) Tamambo (Central-Eastern Oceanic, Remote)
Aka a=mbo mai aruko
 boat 3SG.IRR=FUT come tomorrow
 ‘The boat will come tomorrow.’
 (Jauncey 2011: 306)

Example (18) shows that predicative property words in Tamambo take verbal encoding in the sense that they combine with the subject/mood markers; combinations with tense marking were not found.

- (18) Tamambo (Central-Eastern Oceanic, Remote)
Sala nian mo mahere
 path this 3SG straight
 ‘This path is straight.’
 (Jauncey 2011: 283)

Performing the same analysis on WALS data yields the distribution in Table 13, based on the merged samples from Stassen’s (2013) and Dahl and Velupillai’s (2013b) surveys. While the correlation is not as strong as for past tense, it is still statistically significant ($p = 0.004$). The number of counterexamples is not much higher for languages with future tense and verbal encoding (14 or 31% of 45 languages with future tense and non-mixed predicative adjectives), compared to languages with past tense and verbal encoding (12 or 20% of 59 languages with past tense and non-mixed predicative adjectives). On the other hand, languages without future tense and with nonverbal encoding are considerably more numerous (20 or

Table 13: Distribution of languages according to values predicative adjectives and future tense in WALS.

Predicative adjectives	Inflectional future tense		Total
	No	Yes	
Mixed	12	17	29
Nonverbal encoding	20	31	51
Verbal encoding	33	14	47
Total	65	62	127

38% of 53 languages) than languages without past tense and with nonverbal encoding (4 or 10% of 39 languages). These data suggest that property words are not necessarily much less compatible with past tense than they are with future tense.

Comparing the WALS data with the Oceanic sample, we see that in the latter, unlike in the former, all three counterexamples involve languages with future tense and verbal encoding. There are no languages without future tense and with nonverbal encoding, while in the previous subsection (Table 9) we found no Oceanic languages with past tense and with verbal encoding. This suggests that in Oceanic languages past tense is indeed less compatible with property words than future tense. The following examples from Wuvulu and Erromangan illustrate how predicative adjectives combine with irrealis or future tense marking.¹⁸

- (19) Wuvulu (Admiralty Islands, Western)

hamu'o-'a-ni'eni'e

2PL-IRR-happy

'You will be happy.'

(Hafford 1999: 172)

- (20) Erromangan (Central-Eastern Oceanic, South Vanuatu)

Nur co-ntelemte

place 3SG.FUT-green

'The place will be green.'

(Crowley 1998: 145)

Perhaps, one reason for the fact that in my sample future tense does not imply nonverbal predicative adjectives is that the Oceanic (ir)realis categories, even though they fall under the WALS definition of future tense, are in essence modal categories, while the majority of future tenses in the WALS sample may be more straightforward

¹⁸ The Erromangan future category is also used to encode hortatives and conditionals (Crowley 1998: 99–100).

tense markers, potentially with secondary modal uses. Arguing along Wetzer's lines (see Section 4.1.1), this would mean that the notional category of reality status, in contrast to tense, does not have a particularly low degree of semantic relevance for property word predications, and as such does not have the same obstructing effect as the grammatical expression of tense. Also, the fact that in the WALS sample the presence of (presumably more canonical temporal and nonmodal) future tense tends to combine with nonverbal encoding indicates that Wetzer's iconic motivation extends beyond past tense. In terms of time stability, this amounts to saying that it is more unusual to talk about prototypically durable properties in terms of temporal development (i.e., as being applicable in the past or future) than in terms of reality status (i.e., as being somehow hypothetically predicated).

In the next subsection I will examine a second generalization proposed in the literature about the relation between predicative adjectives and another grammatical feature: locus of marking at the clause level.

4.2 Predicative property words and locus of marking

4.2.1 Introduction

Dixon (2004) proposed the following generalization concerning the relation between a language's strategy for property word predication and its predominant locus of marking at the clause level:

Nonverbal predicative adjectives tend to be found in languages which are predominantly dependent marking at the clause level.

Verbal predicative adjectives tend to be found in languages which are predominantly head marking or zero marking at the clause level. (2004: 33, 34)

Moreover, Dixon mentions that "most Austronesian languages" (which obviously include Oceanic languages) belong to the second type.

Notably, Dixon does not suggest any (functional or formal) motivation for his observation, and he remarks that "it should be emphasized that this is very much a first run-through of the data", already listing several counterexamples (Dixon 2004: 34–36). In the next subsection, I will first test his predictions on my Oceanic sample and compare the results to data from the world-wide language population in WALS.

4.2.2 Results from WALS and Oceanic data

For my assessment of the relation between predicative property words and locus of marking in Oceanic languages, I adhere to the definition of locus of marking

used by Nichols and Bickel (2013) for the relevant WALS chapter: they define locus of marking on the basis of the marking of a nominal P argument in languages that do not treat A and P identically in this respect, or that treat nominal and pronominal arguments differently. I adopt this definition for the Oceanic analysis to ensure comparability with the WALS data. Testing Dixon's generalization for Oceanic languages yields the distribution given in Table 14 and visualized in Figure 3. There is no significant correlation between the features.

Table 14: Distribution of languages according to values predicative adjectives and locus of marking in Oceanic languages.

Predicative adjectives	Locus of marking in the clause			
	Dependent marking	Head marking	Zero marking	Total
Mixed	1	6	6	13
Nonverbal encoding	0	0	4	4
Verbal encoding	4	5	10	19
Total	5	11	20	36

While it is true, as Dixon would predict, that nonverbal encoding of adjectives is used in a minority of zero-marking Oceanic languages and is even unattested in head-marking languages, the same actually holds for dependent-marking languages: none of them has nonverbal predicative adjectives. All nonverbal encoding occurs in languages with zero marking, such as Hote: Example (21a) shows that nominal P arguments are unmarked; Example (21b) shows that predicative property words employ zero marking.

(21) Hote (Western Oceanic, North New Guinea)

a. *Ega yanan waba*
 2PL.carry my cargo
 'They carry my cargo.'

b. *La mavi*
 his.stomach happy
 'He (lit. his stomach) is happy.'
 (Muzzey 1979: 35, 62)

On the other hand, all four languages with dependent marking in my sample (Drehu, Marquesan, North-East Ambae, and Whitesands) have verbal encoding. This is shown for North-East Ambae in (22a), illustrating accusative P-marking, and (22b), illustrating verbally coded property predication:

Figure 3: Relationship between predicative adjectives and locus of marking in Oceanic languages.

(22) North-East Ambae (Central-Eastern Oceanic, Remote)

a. *Re maresu ramo hua na mwerabuto nhihie*
 PL child 3NSG=REAL find ACC devil that
 ‘The children found the devil.’

b. *Netu-re ra=u biti*
 child-3NSG.POSS 3NSG=TEL small
 ‘Their child is small.’

(Hyslop 2001: 123, 57)

For a world-wide assessment of the relation between property word predication and locus of marking, I will again use the data from Stassen’s chapter 118 (2013), but this time in combination with Nichols and Bickel’s (2013) data from their chapter 23. Recall that locus of marking is defined in WALs based on the marking of nominal P arguments. Since Dixon does not propose any generalizations

concerning languages with double marking or ‘other types’ of marking (such as floating marking, see Nichols and Bickel 2013 for examples), these languages ($N = 60$) have been taken out of Bickel and Nichols’ sample, before merging it with Stassen’s sample. The resulting data set comprises 94 languages. The distribution is given in Table 15 and visualized in Figure 4. The correlation between the two features is statistically significant ($p = 0.004$).

Table 15: Distribution of languages according to values predicative adjectives and locus of marking in WALS.

Predicative adjectives	Locus of marking in the clause			
	Dependent marking	Head marking	Zero marking	Total
Mixed	9	9	4	22
Nonverbal encoding	21	8	4	33
Verbal encoding	10	20	9	39
Total	40	37	17	94

Figure 4: Relationship between predicative adjectives and locus of marking in WALS.

These data show that, as predicted by Dixon, the majority of head-marking and zero-marking languages have verbal predicative adjectives, while most dependent-marking languages have nonverbal predicative adjectives. Nevertheless, there are also counterexamples in each group.

Overall, considering both the WALS and the Oceanic data, it seems that especially head-marking languages have a preference for verbal predicative adjectives. One possible motivation for this could be that (predicative) property words are promiscuous and tend to adopt the most prominent morphological devices present in language, as long as they are not semantically incompatible with property word meanings. Based on this, one would expect a tendency for property words to combine with person marking (but not tense marking) in head-marking languages. However, the literature offers some discussion about the relation between predicative adjectives and verbal person marking, suggesting in fact the opposite: that verbal person marking does *not* favor verbal encoding. The next subsection elaborates on this issue.

4.2.3 Predicative property words and verbal person marking

Dixon (2004: 33, footnote 5) refers to an early study by Locker (1951), also discussed by Wetzer (1996: 272–273), which “appears to suggest a correlation which is almost the reverse” of the one proposed by Dixon himself, namely: “in languages which do not mark the category of person on verbs, adjectivals form part of the verb class” (quotation taken from Wetzer 1996: 272). In his evaluation of Locker’s study, Wetzer writes that:

While one would expect to find a clear correlation between verbiness on the one hand and the absence of person marking on the other, there are in fact numerous verb languages in which verbs take person subject markers.[...] Interestingly enough, the correlation between nouniness and the presence of person marking is far stronger: although counterexamples can be found, there appears to be a strong tendency for nouny languages to have person marking on verbs. (Wetzer 1996: 273)

In other words, Wetzer claims that languages without person marking and with nonverbal predicative adjectives are relatively rare among the world’s languages. This apparently clashes with Dixon’s prediction that predominantly dependent-marking languages favor the nonverbal strategy.

Testing the relation between predicative adjectives and person marking in Oceanic languages yields the distribution in Table 16. There is no significant correlation.

Table 16: Distribution of Oceanic languages according to values predicative adjectives and verbal person marking.

Predicative adjectives	Verbal person marking		Total
	No	Yes	
Mixed	1	12	13
Nonverbal encoding	0	4	4
Verbal encoding	5	14	19
Total	6	30	36

As predicted by Wetzer, all four languages with nonverbal encoding have person marking. However, the same holds for the majority of languages with verbal encoding: 74 % of these have person. In fact, while we have seen in Section 4.1.2 (Table 9) that 32 Oceanic languages lack grammatical tense marking, here we see that 30 languages have verbal person marking. Notably, we observe that the person-marking typology and the locus-of-marking typology represent distinct and independent features: three out of five dependent-marking languages and 16 out of 20 zero-marking languages do have person marking. For instance North-East Ambae is dependent marking and has person marking (see Example (22) above); Hote, among many other languages, is zero marking and also has person marking (see Example (21) above).

In order to conduct a parallel analysis on a world-wide sample, I used Siewierska's data from WALS chapter 102 (Siewierska 2013). For the purpose of my analysis, I recoded her data in terms of a binary feature: all four distinct types of person marking (only A; only P; A and P; A or P) are treated as instances of the value '[+ person]', contrasting with one other value: '[-person]'. While using Siewierska's data means losing the distinction between zero-marking and dependent-marking languages, it adds languages with subject indexation in addition to or instead of just P indexation.¹⁹

Combining the recoded WALS data on verbal person marking with the data on predicative adjectives yields the distribution in Table 17. The correlation between these two features is statistically significant ($p = 0.02$).

¹⁹ It should be noted, however, that Siewierska does not in this chapter distinguish between agreement and cross-referencing. This is different from what happens in the WALS locus of marking typology, where a strategy is counted as head-marking only when the index is not mutually exclusive with a nominally or pronominally expressed P argument. In addition, Siewierska excludes freestanding person markings, even when they obligatorily co-occur with a (pro)nominal argument. Affixes and clitics are not distinguished; Siewierska takes both types of markers into account.

Table 17: Distribution of languages according to values predicative adjectives and verbal person marking in WALs.

Predicative adjectives	Verbal person marking		Total
	No	Yes	
Mixed	14	34	48
Nonverbal encoding	10	60	70
Verbal encoding	23	44	67
Total	47	138	185

As predicted by Wetzer, languages with nonverbal encoding and without person marking are relatively uncommon; the large majority of languages with nonverbal encoding (86 %) has person marking. In contrast, the presence of person marking in a language in itself does not say much about the way it encodes its predicative adjectives.

The fact that the WALs data confirm both Dixon's claim based on locus of marking and Wetzer's claim based on verbal person marking shows again that these are distinct typologies that cannot be equated in terms of their relation to predicative adjective encoding: while locus of marking is defined (in WALs) on the basis of P marking, verbal person marking also takes into account A marking.²⁰

4.3 General discussion

Considering the Oceanic and WALs data about property word predication and the grammatical properties that have been related to this in the typological literature, the following picture emerges: Crosslinguistically, nonverbal predicative adjectives appear mostly in languages that have grammatical tense marking, dependent marking of (at least) nominal P arguments, and indexation on the verb of at least A arguments. Verbal predicative adjectives, in contrast, are favored by languages without tense and with zero or head marking of nominal P arguments. These languages may or may not have (additional) A indexation.

Perhaps it can be argued that verbal encoding of predicative adjectives is advantaged in languages that have relatively little distinctive verbal

²⁰ In fact, when combining these two typologies in WALs, one finds 16 languages that are dependent-marking in terms of locus of marking, but only A-marking in terms of person marking. Similarly, 12 languages are zero-marking in the locus typology, but A-marking in the person typology.

morphology, in the form of tense and person marking. If this would be the case, however, it is difficult to explain the specific preference for P-indexation in languages with verbal property predication, and the common occurrence of person marking in general in these languages.²¹ These phenomena are possibly motivated by the fact that person marking is not semantically incompatible with property words (cf. Section 4.2.2). Alternatively, it could be the case that it is not so much the amount or semantic type of morphological marking on the verb that prevents languages from using a verbal property predication strategy, but rather the formal type. Specifically, if a language lacks fusional morphology (and rather has an isolating or concatenative morphological profile), this is claimed to increase the freedom of lexical items to be used in various kinds of propositional functions, including the predicative function (Hengeveld 2013). At least for Oceanic languages, this generalization seems to hold and sometimes has an effect beyond property words: not only property words, but also object words are relatively commonly accepted as verbal predicates in Oceanic languages. This is a symptom of an overall high degree of lexical flexibility in these languages, especially regarding the predicative function (Van Lier 2016). Whether a specific correlation between verbal morphological profile and encoding of property predication holds in a world-wide population, is an issue for further study.

The data analyzed in this paper showed that Oceanic languages as a family do not show any significant correlation between property word predication strategies on the one hand and tense marking (with the exception of future tense, but this is probably a side effect of the modal nature of Oceanic “future” categories), locus of marking, or verbal person marking on the other hand. In general, however, Oceanic languages tend to have verbal encoding of predicative property words, to lack grammatical past tense marking, to have zero-marked nominal Ps, and to show verbal person marking in the form of subject indexation. Thus, my results are in line with Wetzer’s, Stassen’s, and Dixon’s predictions, but also clearly show that the situation in the Oceanic family is more complex and diverse than suggested in existing typological literature.

5 Conclusion

This paper explored diversity and unity in property word categorization in Oceanic languages, focusing first on family-internal phenomena and then

21 Note also that in Siewierska’s (2013) sample, languages with both A and P marking represent the majority.

placing these in a wider typological perspective, specifically with regard to the proposed implicational universals concerning predicative property words, tense, and locus of marking.

The first part of the paper showed that many Oceanic languages divide their property words over more than one formal class and that (sub)classes may differ from each other in several ways. When Oceanic property words are used attributively, the most commonly adopted expression strategy is unmarked modification. Predicative property words are typically expressed verbally, i.e., like prototypical event words. In the case of multiple classes per language, small classes tend to comprise items falling into Dixon's core adjective classes (i.e., dimension, value, age, and color). Such small classes are less marked in modifier function and less verbal in predicative function compared to the major property word class in the relevant languages. These results corroborate and fine-tune both Ross's observations on Oceanic property words and Dixon's crosslinguistic claims on form-meaning correspondences in property word classes.

The second part of the paper evaluated Oceanic property words in light of two typological universals concerning the relation between predicative property words, (past) tense, and locus of marking. Both universals were first tested on the Oceanic language sample. While revealing no significant correlations, the results supported the general characterization of Oceanic languages in the typological literature as having verbal predicative property words, as lacking grammatical past tense marking, and as being head or zero marking at the clause level. Besides this general pattern, however, a wider range of diversity was found than existing studies typically account for.

In order to compare the Oceanic data with the situation in a world-wide language sample, I conducted parallel analyses on data sets extracted from the World Atlas of Language Structures. As predicted on the basis of earlier crosslinguistic studies, these analyses yielded significant correlations for both typological universals.

The results of the present study are in line with the overall flexibility of many Oceanic languages to use different semantic types of lexical items in different functions – especially the predicative function – without any additional morphosyntactic marking. Specifically, attributively used Oceanic property words are most often unmarked and predicatively used Oceanic property words typically adopt the grammatical features associated with event-word predicates, without needing a copula. This lexical flexibility of property words in Oceanic languages is probably enhanced by a relatively simple morphological profile, lacking fusion and lacking features that have a 'narrow' lexico-semantic scope, such as grammatical tense.

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Abbreviations (other than those listed in the Leipzig Glossing Rules)

AUG = augmented (number)
 CL = noun class marker
 CNM = common noun phrase marker
 RDP = reduplication

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Appendix. Composition of language sample

1ST-LEVEL SUB-PHYLUM	2ND LEVEL SUB-PHYLUM	3RD LEVEL SUB-PHYLUM	4TH LEVEL SUB- PHYLUM	NUMBER OF LANGUAGES IN SAMPLE	LANGUAGES	
Admiralty Islands (3, 31, 2)	Eastern (3.5, 28, 3)	Manus Paktong Southeast Islands		3→2		
				2→1		
				1	Loniu	
				1→0	<i>missing</i>	
	Western (1, 3, 1)			1	Wuvulu	
Central-Eastern Oceanic (21.28, 228, 3)	Remote (18.67, 193, 5)	Central Pacific (4.75, 44, 2)	East Fijian- Polynesian West-Fijian- Rotuman		15→14	
					11→10	
					2	
					1	Marquesan
					1	Rotuman
					1	Drehu
					2→1	
					1→0	<i>missing</i>
					1	Ponapeian
					2	Nêlêmwa, Tinrin
					4	
					1	Sakao
					1	Neverver
					2	Tamambo, Northeast Ambae
	2	Erromangan, Whitesands				
	2					
	Solomonic (3.62, 26, 2)	Gela-Guadalcanal Malaita-San- Cristobal		1	Lengo	
				1	Longgu	

(continued)

(continued)

1ST-LEVEL SUB-PHYLUM	2ND LEVEL SUB-PHYLUM	3RD LEVEL SUB-PHYLUM	4TH LEVEL SUB- PHYLUM	NUMBER OF LANGUAGES IN SAMPLE	LANGUAGES
St. Matthias (1, 2, 1)				1	Mussau
Temotu (2, 10, 2)				1	Engdewu
Western Oceanic (27.96, 241, 3)				19→17	
	Meso-			6→5	
	Melanesian (9.13, 71, 3)	Bali-Vitu (1, 2, 1)		1	Vitu
		New Ireland (9.69, 65, 5)		4→3	Nalik, Kokota, Barok, <i>missing</i>
		Willaumez (1, 4, 1)		1	Nakanai
	North New Guinea (15.28, 106, 4)	Huon Gulf (7.1, 31, 4)		9→8	
		Ngero-Vitiaz (9.08, 44, 2)	Ngero (2, 6, 2)	3	Bukawa, Labu, Hote
			Vitiaz (11.06, 38, 9)	4	
		Sarmi-Jayapura Bay (2, 13, 2)		1	Kove
		Schouten (2.5, 16, 2)		3	Mangap Mbula, Lote, Mato
	Papuan Tip (5.25, 64, 2)	Nuclear (5.33, 44, 3)		1→0	<i>missing</i>
		Peripheral (3.99, 20, 2)	Central Papuan	4	
			Kilivila-	2	Tawala, Saliba
			Louisiades	2	
				1	Mekeo
				1	Kilivila
Yapese (isolate)				1	Yapese

1 = Diversity Value, 2 = number of languages in subphylum, 3 = number of branches in subphylum